Strengthening midwifery educator capacity in low and lower-middle income countries

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Certificate of original authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of the requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research, work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Florence West

1st December 2016

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Conference presentations

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West, F., Homer, C. & Dawson, A. (April 2015). *Cultural competence in midwifery education in Papua New Guinea.* Virtual International Day of the Midwife, Online Conference.

West, F., Homer, C. & Dawson, A. (July 2015). *Building midwifery educator capacity in teaching in low and lower-middle income countries (LMIC): A review of the literature*. International Confederation of Midwives Asia Pacific Region. Yokohama, Japan.

West, F., Homer, C. & Dawson, A. (June 2016). *Working together to build midwifery capacity. Findings from a qualitative study.* Optimizing Healthcare Quality. Teamwork in Education, Research and Practice, Chiang Mai, Thailand.

West, F., Homer, C. & Dawson, A. (July 2016). *Working together to build midwifery capacity. Findings from a qualitative study.* Global Network of World Health Organization Collaborating Centre for Nursing and Midwifery. Strategic Conversations. Glasgow, Scotland.

Conference presentation abstracts are included in Appendix 2.

Abstract

Strengthening midwifery educator capacity in low and lower-middle income countries

Background

Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. The most effective approach to building midwifery educator capacity is not always clear. Partnering international and national midwifery educators in education institutions is one strategy to improve the quality of midwifery teaching and learning.

Aim

The aim of this study was to explore how midwifery educator capacity in learning and teaching in LMIC can be strengthened and improved. This research was conducted in two phases. Phase 1 aimed to determine whether one approach – the Papua New Guinea Maternal and Child Health Initiative – contributed to capacity building that was designed to improve midwifery teaching and learning. Phase 2 explored how capacity building using international partnerships is conducted in other LMICs.

Methods

This study used a sequential exploratory mixed method design. During Phase 1, an exploratory qualitative case study design was used. Data were collected from 26 semi-structured interviews conducted with both national and international midwifery educators. A thematic analysis was undertaken. In Phase 2, a descriptive quantitative design was used with data collected from a survey of 18 international and nine national midwifery educators working in 13 different LMICs. Descriptive statistics and content analysis were undertaken.

Findings

In Phase 1, seven themes were identified. The first three provided insights into enabling factors: knowing your own capabilities, being able to build relationships and being motivated to improve the health status of women. The next four themes explored constraining factors: having a mutual understanding of the capacity building project, preparing stakeholders for working together, knowing how to adapt to a different culture, and needing an environment which supports improved midwifery education. Phase 2 confirmed that midwifery educators working in other LMICs experience similar enabling and constraining factors. An individual's knowledge, skills and attitude influenced the quality of the international partnership. Social norms, institutional support and context also shaped the capacity of midwifery educators to improve teaching and learning.

Discussion and Implications

Individual, partnership and environmental factors influenced midwifery educators to improve teaching and learning in LMIC. Monitoring and evaluation of individual performance, using national and international guidelines may help to provide feedback and build educator confidence. Specific individual preparation for the capacity building partnership would help to ensure that all stakeholders have a mutual understanding, are culturally competent and maintain relevance to the context. Strengthening institutional leadership and infrastructure to provide a supportive working

environment would also enable educators to access contemporary teaching resources and research evidence. Supporting the government and community to identify and value the role of the midwife and the development of a well-functioning midwifery regulatory body in LMIC are other enabling factors that need to be addressed.

Further research is needed to assess if addressing the individual, partnership and environmental factors identified in this study results in improved midwifery teaching in LMIC.

CHAPTER 1 – INTRODUCTION

Introduction

Over the past 20 years, the international health community has increased the investment in maternal, newborn and child health in order to save lives, contribute to improved community development and reduce the financial burden on fragile health systems (Homer et al 2014). The momentum towards focusing on maternal, newborn and child health started in force with the Safe Motherhood Initiative in 1987 (Maher 1987). Improvements in vital registration systems in Africa, Asia and the Americas highlighted that maternal mortality in developing countries was up to 200 times higher than industrialised countries (Mahler 1987). The awareness of this unacceptable and preventable disparity spurred many international organisations and national partners to find solutions to decrease maternal mortality in developing countries. The United Nations Millennium Declaration was signed in 2000 by global leaders of 189 member states which unified the global community to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women (WHO 2017). The eight time-bound goals and quantified targets to be achieved by 2015 were known as the Millennium Development Goals (MDG). Three of these focused on empowering women (MDG 3), reducing child mortality (MDG 4) and improving maternal health (MDG5). Despite some improvements, the target of MDG 5 to reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio was not achieved in many countries (Hogan et al 2010). It was clear from the lack of uniform progress to achieve this target that further evidence on how to address maternal mortality was required. United Nations agencies and partners supported extensive research and collaboration to produce The State of the World's Midwifery Report (UNFPA et al 2011) which identified that strengthening the midwifery workforce was a key strategy to address the persistent global disparities in maternal health. The United Nations Sustainable Development Goals have included three goals relevant to reducing maternal mortality in the post-2015 agenda by identifying health, equality and education to still be development priorities (United Nations 2014). The Lancet Series on Midwifery (2014) and the second State of the World's Midwifery Report (UNFPA 2014) further reinforced this previous evidence and several strategies and interventions were proven to be effective and necessary to be strengthened in order to increase women's access to quality midwifery care (Day-Stirk and Fauveau 2012).

High level evidence has now shown the benefits of midwifery (Homer et al. 2014; Renfrew et al. 2014; ten Hoope-Bender et al. 2014; UNFPA 2014). This research has demonstrated that if the quality and quantity of the midwifery workforce is sufficient, then individual maternal and newborn lives will be

saved and the health status of whole communities will improve. Strengthening the midwifery workforce can also reduce poverty and increase human development indicators (Frenk et al. 2010; Fullerton et al. 2011). In order to build an effective midwifery workforce, the International Confederation of Midwives (ICM), together with partners World Health Organization (WHO), United Nations Population Fund (UNFPA), International Federation of Gynecology and Obstetrics (FIGO) and experts in the field of maternal and child health have identified that the three pillars of midwifery professional association, regulation and education must be strengthened (International Confederation of Midwives 2013; UNFPA 2014; World Health Organization 2014). Education, as one of these pillars, is the focus of this thesis.

An education environment that promotes strong midwifery leadership, effective governance and adequate resourcing of teaching, clinical simulation and practice can produce quality midwifery graduates (Dawson, Nikowane & Whelan 2015; Frenk et al. 2010). However, in many low and middle income countries (LMIC), midwifery education institutions fall short in all areas (Frenk et al. 2010). There are often barriers preventing midwifery educators to maintain competency in teaching and clinical practice in low and lower-middle income countries (LMIC) (Frenk et al. 2010). Educators in low resource environments face difficulties participating in professional development activities due to a lack of funding and staff to replace them in their absence. In addition there are a limited number of suitable professional development programs for midwives in rural areas (Dawson, Nikowane & Whelan 2015; Frenk et al. 2010; Lemay et al. 2012). Concerns about quality have also been raised where midwifery education programs are taught by medical doctors, veterinarians or nurses without the requisite midwifery knowledge, skills or attitudes (Fullerton et al. 2011). In many LMIC where English is not the first language, national midwifery educators may face barriers accessing contemporary midwifery reference materials translated in the local language (Evans, Razia & Cook 2013; Herberg 2005). Access to information is further limited by inadequate internet and poor computer literacy which results in midwifery educators using outdated or incomplete reference materials for teaching (Brodie 2013).

Other concerns revolve around the workforce responsible for education. Where there are insufficient numbers of midwives in the health workforce it is often difficult to recruit appropriate candidates into the educator role (Bogren, Wiseman & Berg 2012; Frenk et al. 2010; Fullerton et al. 2011). New graduates with current theoretical knowledge need to consolidate their midwifery skills in the clinical area before working in an education role (Moores et al. 2015; Msiska, Smith & Fawcett 2014). There are minimal financial incentives for experienced clinical midwives to work in an education institution

as they often receive a higher salary working in the clinical area (Laurencelle, Scanlan & Brett 2016; McAllister & Flynn 2016). It has also been reported that midwives working in hospital administration or other non-clinical roles are often coerced to work in education institutions as this is where the need is greatest but they are without the requisite experience or desire to work in that area. This lack of option and choice affects the quality of teaching (Bogren, Wiseman & Berg 2012; Tajebi et al. 2013).

Although countries have different needs, many LMIC face similar challenges in strengthening the capacity of midwifery educators (World Health Organization 2009, 2016b, 2016c). These include the lack of recognition of the role and scope of midwives, unequal rights for women to access education and employment and a lack of human resources and infrastructure to access contemporary midwifery research evidence (UNFPA 2014). Lack of internet infrastructure or translated printed resources may also impact on the individual or organisation's capacity to access up-to-date research evidence to keep practice current and maintain competence (Renfrew et al. 2014).

Improving midwifery educator's capacity in learning and teaching is one supportive strategy that strengthens midwifery education and supports the development of a quality midwifery workforce to achieve Universal Health Coverage (UHC) (World Health Organization 2015c, 2016c). UHC aims to provide quality maternal and child health services to whole populations, reduce urban/rural and health disparities and reach vulnerable populations where mortality and morbidity ratios for women and newborns are highest. Many key interventions to help achieve UHC are delivered by midwives and it has been found that approaches using partnerships between countries at individual and institution level can create sustainable change and contribute to improve UHC and ensure equitable access to healthcare for vulnerable populations (Dawson, Nikowane & Whelan 2015; World Health Organization 2015c, 2016e)

International partnerships to strengthen midwifery have been facilitated by education institutions, volunteers, faith based organisations, non-government and other international agencies who often work collaboratively with local partners to implement local government health plans. International expatriate midwives who work in these roles can either replace lacking workforce numbers or work in partnership with the available professionals to build the capacity of local partners. There is little known about what key features of international partnerships enable individuals and organisations to most effectively strengthen midwifery teaching in education institutions in LMIC.

The aim of this study was to explore how midwifery educator capacity in teaching and learning in low and lower middle income countries (LMIC) could be strengthened and improved. Specifically, strengthening and improving midwifery teaching and learning refers to using contemporary pedagogical methods of instruction and incorporating evidence based midwifery knowledge into theoretical and clinical teaching. The understanding of 'capacity building' is aligned with the United Nations Development Program (2009, p.5) definition:

> *'…the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time.'*

Research question, aims and objectives and outcome

The overarching research question guiding this study was:

- How can midwifery educator capacity in learning and teaching in LMIC be strengthened?

The research was conducted in two phases. The aim of Phase 1 was to:

- Determine whether one approach – the Papua New Guinea Maternal and Child Health Initiative – contributed to capacity building that was designed to improve midwifery teaching and learning.

The specific objectives of Phase 1 were to:

- Examine the factors that enabled or constrained the ability of both national and international midwifery educators to implement improved midwifery teaching and learning;
- Explore how national midwifery educator's attitudes, subjective social norms and perceived behaviour control are linked to intention and improved teaching behaviour;
- Consider the issues related to working in a cross-cultural environment for both national and international midwifery educators; and,
- Develop an online survey based on the findings and informed by the Theory of Planned Behaviour (TPB) to study the issues relating to capacity building programs in midwifery education in other LMIC.

The aim of Phase 2 was to:

- Explore how capacity building in midwifery education using international partnerships is conducted in other LMIC.

The objectives of Phase 2 were to:

- Describe the experiences of national and international midwifery educators when working together in a capacity building program in a LMIC; and,
- Determine whether the conceptual understandings developed in Phase 1 have resonance in a broader sample.

The outcome of the study was to develop a conceptual model that could be used to inform orientation programs and ongoing support for improving the quality of capacity building initiatives in LMIC. This is described in Chapter 6 of the thesis.

My motivation for choosing this research topic

Living and working in LMIC as an international expatriate engaged in various development and capacity building initiatives for the past 10 years has enabled me to reflect on the differences and similarities between the midwifery profession in LMIC and in my home country, Australia. I have worked with midwives in Timor-Leste, Sudan, Papua New Guinea, India, Cambodia and Laos and have had the opportunity to experience how clinical midwives practice and how midwifery educators teach and facilitate learning. I have reflected that I have been exceptionally fortunate in my midwifery career to gain knowledge, skills and experience through having access to engaging learning experiences, positive role models and contemporary resources for practice and education.

In the LMIC context, midwives face many challenges and although there is assistance available from individuals and organisations from higher income countries, I have often wondered if the international assistance provided is useful and sustainable. I have received feedback from midwifery students and graduates I have worked with in LMIC that their undergraduate nursing education has not prepared them for midwifery study, the methods of instruction during their midwifery training has not prepared them for practice and they do not feel supported in their workplace after graduation. When I have worked in LMIC in an education role, my national midwifery educator colleagues have confided that they did not feel prepared for their teaching role, their institution did not have adequate resources and they were frustrated that they were too few in numbers to provide the necessary learning support to their students.

My experiences are my motivation to undertake this study to explore approaches to building midwifery educator capacity in LMIC. I hope that the results of this study will inform the capacity building process of individuals and organisations involved in midwifery education in LMIC and contribute to improving the quality of midwifery practice and education and address improving maternal and newborn health outcomes.

Capacity building in midwifery globally

It is important to understand what is meant by the term 'capacity building' and an explanation will be provided in this section which provides a context for capacity building in midwifery for the remainder of the thesis.

The World Health Organization (1998) has defined capacity building as:

> *"…the development of knowledge, skills, commitment, structures, systems and leadership to enable effective health promotion. It involves actions to improve health at three levels: the advancement of knowledge and skills among practitioners; the expansion of support and infrastructure for health promotion in organizations, and; the development of cohesiveness and partnerships for health in communities"*

There have been a number of international partnership approaches used to build midwifery professional capacity (Boshoff 2010; Brodie 2013; Christofides et al. 2013; Crisp, Swerissen & Duckett 2000; Dawson et al. 2014). These have included twinning relationships between midwifery professional associations in higher and lower income countries to strengthen the visibility of midwifery (Brodie 2013; International Confederation of Midwives 2014; Ireland, Van Teijlingen & Kemp 2015). United Nations agencies, faith based organisations, non-government organisations and universities have also implemented programs to strengthen midwifery regulatory bodies, education institutions and clinical facilities by providing physical and human resources (Dawson et al. 2014; Dawson, Nikowane & Whelan 2015; Lavender et al. 2009). International educators from middle or higher income countries have worked with educators in low and lower-middle income countries (North-South collaboration) or individuals from LMIC have worked with midwives in resource poor contexts similar to their own often within their own region (South-South collaboration) (Boshoff 2010; Christofides et al. 2013; Lavender et al. 2009). These collaborative partnerships require individuals with pre-requisite capacity building knowledge and skills to work in culturally diverse and complex low-resource environments. In addition, partners require problem solving skills to mitigate the challenges and limitations they may experience (Maclean 2013).

Longer-term international partnerships which enable relationship building and a deeper understanding of the context have proven to be more effective than short term international consultancies (Maclean 2011). These partnerships are shown to enable a sustained improvement in midwifery leadership, practice and teaching which subsequently improves the quality of the midwifery workforce and maternal, child and newborn health outcomes (Lasker 2016; UNFPA WHO ICM 2014; West 2015; World Health Organization 2015c).

It has been identified that the key requirements for capacity building to improve the quality of midwifery are related to both individual and environmental factors (Bates et al. 2006; Crisp, Swerissen & Duckett 2000; Liberato et al. 2011; Merino & Carmenado 2012). A health systems strengthening approach which includes interventions to address pre-service education, the regulation of the quality of the midwifery workforce and strengthening professional associations may therefore be an appropriate way forward to plan, implement and evaluate midwifery workforce capacity building (World Health Organization 2016b). This approach would allow the consideration of factors on a number of levels including the socio-cultural context into which capacity building is taking place. However, such a way forward requires considerable human and financial investment, as well as the support of governments (UNFPA 2014; World Health Organization 2016d). These issues are addressed in more detail later in the thesis.

Specifically related to capacity building for midwifery education, various methods and approaches have been described by our research team in relation to the Maternal and Child Health Initiative in PNG (Dawson & Homer 2013; UNFPA WHO ICM 2014; West 2015). Some of the specific methods in other studies designed to improve capacity building include studying short courses or degree programs abroad, participating in online externally-moderated learning modules or attending short training courses in their own country in response to recommendations from curriculum review and/or update (Akiode et al. 2010; Amaral et al. 2012; Forss & Maclean 2007; Girot & Enders 2003; Johnson et al. 2007; Lacey-Haun & Whitehead 2009). These methods have had varied success in creating sustainable change for midwifery education, with individual level benefits not always transferred to the education institution or wider maternal health system. Reasons to explain this lack of skills transfer include limited relevance to the country context, poor cultural knowledge of facilitators, and a lack of support from clinicians and services to apply new practice (Gower et al. 2016; Maclean 2013). In addition, educators in LMIC who studied abroad have identified that they required the support of their education institution to implement newly learned skills upon return to their home country (Evans, Razia & Cook 2013; Johnson et al. 2007; Lacey-Haun & Whitehead 2009; Requejo et

al. 2010). Capacity building programs which can identify opportunities for improving performance and be responsive to challenges in the real-life working context of midwifery educators in LMIC are more likely to be successful and create sustainable change (Gross, McCarthy & Kelley 2011; Maclean 2013). However, little is known about how midwifery educators working in international partnerships can best be supported.

Being culturally aware and sensitive to others have been identified as important factors which have contributed to enabling individuals to work collaboratively in an international partnership (Australian Government 2005; Beach et al. 2005; Callister 2001; Cushman et al. 2015; Maclean 2013; Noble, Noble & Hand 2009). An awareness of how aspects of culture can influence behaviour can help individuals adapt better to working in a cultural context other than their own. The concept of cultural competence will be discussed in the following section and explored in more detail later in the thesis.

Cultural competence in international partnerships

Terms such as 'cultural competence', 'cultural safety' and 'cultural sensitivity' have been used interchangeably to describe the skills necessary for health care professionals to work effectively with diverse populations (Beach et al. 2005; Callister 2001; Coast et al. 2014; International Confederation of Midwives 2013; Maclean 2013; Nursing and Midwifery Board of Australia 2006). However, it has been found that a definition of cultural competence is difficult to quantify as there are no internationally agreed measurable indicators that would determine individual competence. In capacity building and international partnership literature, these terms are used to describe a way to practice that enhances the dignity and integrity of others (Australian Government 2005; Beach et al. 2005; Callister 2001; Coast et al. 2014; DeSouza 2008). Cultural competence is the term used in this thesis to represent these concepts.

Cultural competence has been defined as "the ability to think, feel, and act in ways that acknowledge, respect, and build upon ethnic, cultural, and linguistic diversity" (Lynch & Hansen 1998).

The need to address culture in healthcare has become more important in recent years as international travel and opportunities for mobility between countries have increased which amplifies the diversity of both the workforce and consumers of healthcare (Callister 2001; Coast et al. 2014; DeSouza 2008). A study exploring cultural competence among non-Latino physicians treating Mexican Americans with diabetes showed that cultural expectations, in addition to linguistic and economic differences between patient and physician, created barriers to healthcare provision (Reimann et al. 2004). A lack of ethnic minority physicians and an increasingly diverse patient population has

necessitated healthcare professionals to become culturally competent in order to address disparities in the quality of health care provided to ethnic minority and other racial groups (Sales et al. 2013).

In midwifery, being culturally competent has been included as a core competency for clinicians and educators in many global guidelines or statements (International Confederation of Midwives 2015; World Health Organization 2009, 2013). Organisations have included pre-departure training addressing knowledge, skills and attitudes to help international expatriates working in a capacity building role to provide culturally appropriate and contextually relevant support when they are in the host country (Lasker 2016; Maclean 2013; Rhodes 2014). Training in cultural competence has included knowledge and skills in language, exploration of provider bias and preconceptions (Reimann et al. 2004; Sales et al. 2013), clinical practice and educational experiences in other cultures, (Reimann et al. 2004; Sales et al. 2013) role play, simulation and discussion on surface and deep level diversity (Van Vianen et al. 2004). Cultural competence is also included in undergraduate global health, nursing, midwifery and allied health curricula (Cushman et al. 2015). It is therefore important to understand what factors contribute to an effective cross-cultural international partnership between midwifery educators and how individuals and organisations can be best prepared and supported to develop and nurture such relationships.

One way of describing cultural differences is by defining countries according to their national cultural dimensions (Hofstede 2001). According to Hofstede (2001) cultural dimensions consist of six variables, and each describes a range between two extremes where aspects of national culture can be ranked. These include: high versus low power distance, individualism versus collectivism, masculinity versus femininity, low versus high uncertainty avoidance, long term versus short term orientation, and indulgence versus restraint. It has been found that having an awareness of these dimensions of culture can help individuals be more sensitive towards the similarities and differences of others (Lasker 2016; Rhodes 2014). As an example, 'power distance' refers to how a culture adheres to strict hierarchical structures (Hofstede 2001). A culture with a high power distance indicates that hierarchy is prevalent and respected across all levels of society. The presence of high power distance in a culture can determine how much autonomy is afforded to individuals (Hofstede 2001). When engaged in an international partnership to build capacity, the self-efficacy of an individual to change or modify behaviour based on their natural cultural tendencies must be considered. Understanding cultural dimensions is important in order to appreciate the perspective of others, build a collaborative international partnership and contribute to the capacity building process.

The majority of literature used to guide effective cross cultural partnerships has focused on the elements used in international development between government or non-government organisations and local partners to build community capacity (Australian Government 2005; Bates et al. 2006; Butterfoss 2006; Crisp, Swerissen & Duckett 2000; Liberato et al. 2011; Merino & Carmenado 2012). There is a gap in the literature related to how international partnerships to strengthen midwifery teaching and facilitation of learning in education institutions can be implemented, strengthened or monitored in LMIC.

The next section provides an overview of the organisation of the thesis.

Thesis Outline

The thesis comprises two main studies and is presented in six chapters.

1. Chapter One - Introduction

Chapter One has outlined my research aim, questions and relevant background. My motivations for conducting this study were also discussed. Capacity building in midwifery globally and the influence of culture on international partnerships has also been introduced.

2. Chapter Two - Literature Review

Chapter Two reviews the literature relevant to building capacity in midwifery educators in LMIC. Discursive and research papers were included in the review which examines various approaches used to strengthen midwifery educator capacity. The literature review highlights the approaches that have been used effectively, which have included longer term partnerships of in-country support to LMIC educators in their education facility. The literature review has been published in the journal *Midwifery* and permission has been obtained to reproduce it in this thesis. Chapter Two contains the word version of the published manuscript. As previously mentioned, a copy of the published version is included in Appendix 1.

3. Chapter Three - Methodology

Chapter Three provides an overview of the sequential exploratory mixed method design used in this study. The setting, sample, participant selection and data collection processes are explained. The methods of data analysis are described in detail to enable the reader to link the primary qualitative phase with the secondary quantitative phase and ethical considerations are also discussed. The Theory of Planned Behaviour (TPB) will be introduced as the theoretical framework underpinning this study.

4. Chapter Four – Phase 1 Methods and Findings

Chapter Four presents the findings from the explorative qualitative Phase 1 of this study. Interview data from 26 individual interviews with midwifery educators from the PNG MCHI were analysed and seven themes are described in this chapter. Factors enabling and/or constraining the midwifery educator's ability to implement improved midwifery teaching are explored through the lens of the TPB.

5. Chapter Five – Phase 2 Methods and Findings

Chapter Five presents the findings from the descriptive survey conducted in LMIC during Phase 2 of this study. It is explained how the findings from Phase 1 are found to be transferable to other LMIC. This chapter also discusses the applicability of how a behaviour change theory like the TPB can be used to prepare individuals working in a capacity building process. Necessary facilitators for strengthening international partnerships to improve midwifery teaching are also identified.

6. Chapter Six - Discussion

Chapter Six discusses how the literature supports the findings of the study and highlights the key enabling and constraining factors. The individual, partnership and environment level factors influencing midwifery educators in LMIC are addressed and suggestions made for how to best address them. The limitations of the study and a conclusion end this chapter.

Summary

This chapter has provided a background and context of midwifery capacity building and midwifery education globally in order to situate the study within a broader frame. An outline of the thesis has also been provided. The following chapter reviews literature relevant to the topic and identifies key factors influencing midwifery education partnerships in LMIC.

CHAPTER 2 – LITERATURE REVIEW

Introduction

This chapter reviews the literature in relation to the approaches used to build midwifery educator capacity in education institutions in LMIC. There was a lack of evidence specific to midwifery and therefore some evidence from the nursing profession and grey literature were included in the review.

The aim of the review was to identify the key aspects of approaches that have been effective in strengthening midwifery educator capacity.

Publication details

This work was published in *Midwifery* as follows:

- **West F**, Dawson A, & Homer CSE. 2016. Building midwifery educator capacity in teaching and practice in low and lower-middle income countries. A review of the literature. *Midwifery* 33:12-23.

This chapter presents an article in its original form. The published version is provided with permission from the journal editor and is included in Appendix 1. The publisher's license agreement to reuse is included in Appendix 3. The references for this chapter are included in the reference list at the end of the thesis. This article was also used in a policy brief for the UTS WHO CC and is included in Appendix 4.

Abstract

Aim and Objective:

Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. This paper will explore approaches used to build midwifery educator capacity in LMIC and identify evidence to inform improved outcomes for midwifery education.

Design

A structured search of bibliographic electronic databases (CINAHL, OVID, MEDLINE and PubMed) and the search engine Google Scholar was performed. It was decided to also review peer reviewed research, grey literature and descriptive papers. Papers were included in the review if they were written in English, published between 2000 and 2014 and addressed building knowledge and/or skills in teaching and/or clinical practice in midwifery educators who work in training institutions in LMIC. The Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) was used to guide the reporting process. The quality of papers was appraised in discussion with all authors. The findings sections of the research papers were analysed to identify successful elements of capacity building approaches.

Findings

Eighteen (6 research and 12 discursive) papers were identified as related to the topic, meeting the inclusion criteria and of sufficient quality. The findings were themed according to the key approaches used to build capacity for midwifery education. These approaches are: skill and knowledge updates associated with curriculum review, involvement in leadership, management and research training and, participation in a community of practice within regions to share resources.

Key conclusions

The study provides evidence to support the benefits of building capacity for midwifery educators. Multi-level approaches that engaged individuals and institutions in building capacity alongside an enabling environment for midwifery educators are needed but more research specific to midwifery is required.

Implications for practice

These findings provide insight into strategies that can be used by individuals, faculties and institutions providing development assistance to build midwifery educator capacity in LMIC.

Keywords: Midwifery; education; developing country; capacity building.

Introduction and background

There is international consensus that midwifery care is the most cost effective solution to decreasing maternal and newborn mortality in low and lower-middle income countries (LMIC) (Renfrew et al. 2014b). The ability of a midwife to demonstrate competence according to international standards (Fullerton et al. 2011; International Confederation of Midwives 2013) and contribute to improving outcomes for women and newborns depends on various factors. These include the quality of pre-service training, access to continuing professional development once graduated, the regulated scope of practice, and the presence of an enabling work environment (Renfrew et al. 2014b).

Midwifery education has been identified as a critical component contributing to quality midwifery care (Fullerton et al. 2011; Renfrew et al. 2014b; World Health Organization 2013). In this review, the term 'midwifery education' refers to the formal process of training midwives (International Confederation of Midwives 2013) which has a minimum entry level requirement of a completed secondary school education and is either a three year direct-entry or eighteen month post-nursing program. The term 'midwifery educators' refer to the midwives who provide the education to students enrolled in a midwifery program. Unfortunately in LMICs, the number and quality of midwifery educators is often well below what is needed which contributes to the production of midwifery graduates with inadequate technical skills and little ability to think critically (Thompson, Fullerton & Sawyer 2011). The first State of the World's Midwifery Report (UNFPA WHO ICM 2011) found that, despite some promising developments in midwifery education, competency based midwifery curricula and professional development opportunities for midwifery educators in LMIC were lacking. Recommendations to build capacity for midwifery education remain on the international agenda and include a call for an increase in resources for midwifery education and supervised clinical practice for students (UNFPA WHO ICM 2014). However, as few as 6.6% of midwifery educators in LMIC have any formal preparation in education (World Health Organization 2013).

In general terms, capacity building has been defined by the United Nations Development Program as "the process through which individuals, organisations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time"(United Nations Development Program 2009). In order to strengthen midwifery education, various approaches have been taken to build the capacity of midwifery educators (International Confederation of Midwives 2013; UNFPA WHO ICM 2011; World Health Organization 2009). The World Health Organization (2013) has defined a set of core competencies for midwifery educators which enable effective

midwifery practice, teaching and clinical supervision, research and leadership. Global standards have been published (International Confederation of Midwives 2011) to assist midwifery educators develop a quality midwifery education program and such documents are most useful when educators are supported by governments, health systems, regulatory bodies and midwifery associations to implement them (Fullerton et al. 2011). Toolkits and teaching aids (The Knowledge for Health (K4Health) Project 2013, 2014; World Health Organization 2008) have also been produced in order to improve the quality of midwifery education but how they have been used in LMIC has not been well documented. The individual context and culture play a significant and important role in how capacity building interventions are developed and implemented and should not be overlooked (Maclean 2013). Despite investment from international donors, capacity building consultants, national partners and local experts, little is known about the best way to build capacity and support midwifery educators working in institutions in LMIC. This review, therefore, aims to explore the different approaches used to build midwifery educator capacity in LMIC and identify which aspects have been successful in creating improved outcomes for midwifery education.

Method

A descriptive narrative synthesis was chosen for this integrative literature review. This method allows the findings of literature derived from qualitative and quantitative methods to be synthesized and identify gaps by extracting data and then grouping it to present common ideas or arguments (Popay et al. 2005).

Search protocol

A search of electronic bibliographic databases (CINAHL, MEDLINE, OVID, and PubMed) and websites (Google Scholar, University of Technology Sydney library site, World Health Organization, JHPEIGO, and UNFPA) were performed. Search terms included 'midwifery education', 'midwifery educators', 'midwifery training', 'midwife', 'capacity building'. Searches were limited by year 2000-2014 and to publications in English language. Searches were limited to LMIC regions by using terms 'low resource country', 'low and middle income country', 'LMIC', 'developing country', 'third world country'. The World Bank country classification scale was used to define LMIC (World Bank 2014). Reference lists were hand searched to identify additional relevant publications.

Papers included in this review explored capacity building from the perspective of both the national educators in LMIC (the capacity 'buildees') and the international educators (the capacity 'builders'). Due to the lack of research papers, a decision was made to examine discursive papers to provide

insight into midwifery educator capacity building experiences. We therefore undertook a mapping exercise to provide insight into the context of capacity building alongside a narrative synthesis of research literature. Discursive papers were included that described and/or evaluated an approach to building skills, knowledge and a supportive environment for educators working in training institutions in LMIC. There were low numbers of midwifery-specific papers and the cadre of midwife is not recognized in all countries therefore relevant papers including nurse-midwives or nurse educators who teach maternal, child or reproductive health were also included.

Papers were excluded if approaches to building midwifery educator capacity only focused on clinical teaching sites as midwifery educators who work in institutions face different challenges than those working in the clinical setting alone. Papers involving only medical officers or untrained community midwives were also excluded. Details of inclusion and exclusion criteria for synthesis are included in Table A.

Table A: Details of inclusion and exclusion criteria

	Date of publication	Country	Language of publication	Cadre of health professional	Place of Employment
Included	2000-2014	LMIC as defined by World Bank	English	Midwives, nurses working in an education role in reproductive health or midwifery	Midwife or nurse training institution and clinical placement site
Excluded	1999 or later	Other than LMIC	Other than English	Medical doctors, community health workers, traditional birthing attendants	Hospital, clinic or community health center only

Study selection and quality appraisal

Initial searching using key words retrieved 250 papers and the titles were read. Of these, 174 papers were removed as they were not relevant to the review question or study focus. The remaining 76 retrieved titles and abstracts were screened and examined in more detail for possible inclusion. Thirty-five research papers were screened and 41 discursive papers screened and appraised for possible inclusion. Twenty-nine research papers and 29 discursive papers were further discarded as they did not meet the selection criteria leaving six research and 12 discursive papers remaining.

The quality of the six research papers was evaluated using either the Critical Appraisal Skills Program (CASP) tool for qualitative research (National Health Service 2006) or the Critical Review Form for quantitative studies (Law et al. 1998). The 12 discursive papers were assessed using the Authority, Accuracy, Coverage, Objectivity, Date, Significance (AACODS) checklist which is designed to enable evaluation and critical appraisal of grey literature (Tyndall 2010). The 18 papers (six research and 12 discursive) were all determined to be of high quality and were included in the mapping exercise and analysis. An overview of the literature review process is displayed in Figure A using the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) flow diagram.

Figure A: Overview of the literature review process
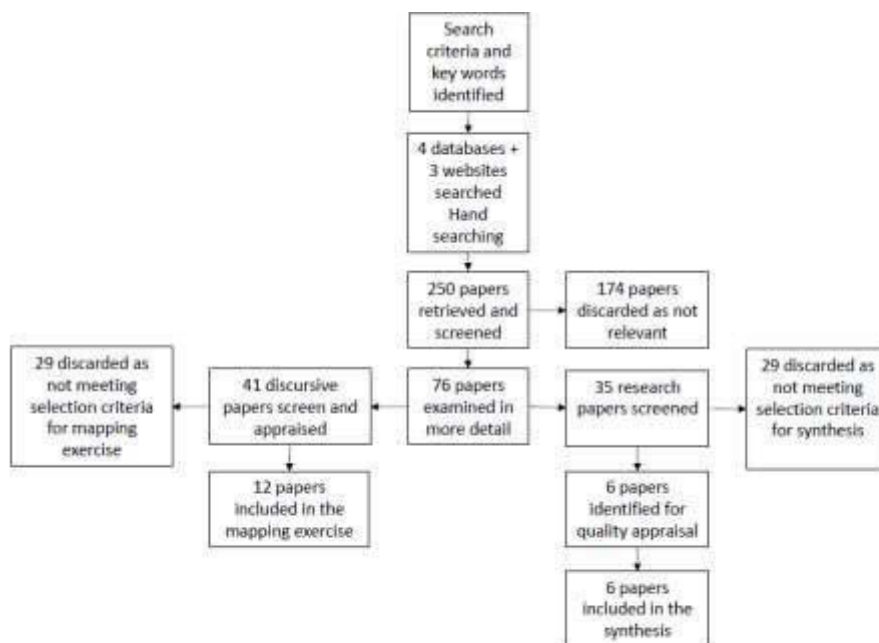
Data abstraction and synthesis

In total, 18 papers were selected, six research papers and 12 discursive papers and these groups were analysed separately (Figure A). A narrative synthesis approach was used to critique the study characteristics, context and quality (Lucas et al. 2007) of the research papers and draw conclusions based on the similarities and differences found across papers. The characteristics of the research papers are outlined in Table B identifying relationships and themes across and within the papers. The discursive papers were examined and described under each of these themes to provide context for the research.

Table B: Characteristics of the research papers

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
Akiode et al (2010)	Nigeria	Mixed qualitative interviews and quantitative surveys	Faculty from 6 midwifery training schools. Midwifery instructors from all 70 schools in Nigeria. 149 midwifery graduates.	✓			To examine the impact of a national intervention that took place between 2003 and 2006 to improve the post-abortion care (PAC) content of midwifery education in Nigeria	Curriculum review to include PAC content and training to improve teaching capacity and clinical skills in PAC. International NGO collaborated with national partners. In-country regional training of trainers' model and supervisory visits to ensure quality of mentorship.	PAC content included into curriculum, clinical skill development and adult education strategies. Significant improvements in midwifery educator's knowledge of and exposure to PAC and using manual vacuum aspiration (MVA).
Amaral et al (2012)	Brazil	Mixed qualitative interviews and quantitative surveys to self-rate knowledge and importance of curriculum topics, knowledge, skills and competence	98 faculty who participated in the Health Professional Educator (HPE) degree program from faculties of medicine, pharmacy, nursing and dentistry from 2007-2010 classes			✓	To study the national leadership faculty development program of HPE in Brazil	2 year part time involvement in HPE faculty training program; focusing on leadership and management skills and teaching methodologies. Delivered by residential schools and distance learning modules and implementation of an educational innovation project	Increased number of candidates, broadening reach of the program, changes In knowledge and skills, indications of field leadership in HPE, scholarly products included: presentations, education conferences national, regional and local level meetings. Progress towards a critical mass of HPE

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
Evans et al (2013)	India	Discursive	Partnership between School of Nursing Midwifery and Physiotherapy University of Nottingham UK (SNMP) and Government College of Nursing in Hyderabad (GCNH) collaborated to initiate a Nursing and Faculty Development Program (NFDP) for 6 schools in Andhra Pradesh, India. 4 public and 2 autonomous		✓		Strengthen the capability and capacity of nursing faculty within the state of Andhra Pradesh	SNMP work with GCNH to provide faculty development courses using a training of trainers (ToT) model. A participatory approach to curriculum development resulting in a formative evaluation and a collaborative planning process	Conference in Hyderabad, planning and leadership workshops for faculty provided by SNMP staff. Delivery of 4 education modules by SNMP faculty in Hyderabad. 6 faculty visit SNMP. Formative evaluation
Fullerton et al (2011)	Ghana, Ethiopia, Malawi	Discursive	Informants at donor, government and policy-making levels, representatives of collaborating and supporting agencies, midwives and students in education programs and	✓			To stimulate discussion about issues that must be carefully considered in the context of midwifery educational programing and the expansion of the midwifery workforce.	Review of pre-service midwifery education curriculum in Ghana, Ethiopia and Malawi	Issues related to pathways to midwifery, student recruitment and admission, curricula, academic teaching and clinical mentorship capacity, program accreditation, regulation and assessment of

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
			midwives in clinical practice.						continued competence are discussed
Girot &Enders (2004)	Brazil	Discursive	Link between Bristol and Natal health faculties		✓		To strengthen education and training for obstetric nurses. Introduce in-house post-graduate specialisation program for obstetric nurses to be nurse-midwives using the principles of Safe Motherhood	The purpose and importance of the project was communicated to the fund-holders. Clear commitment from both parties identified. Link coordinators maintained the focus and continuity of the project and respect for the needs of their own community. Exchange visits between countries. Regular engagement with the medical staff and service users to ensure acceptability of the new role of nurse-midwife.	Key qualities identified are effective communication, deep commitment and the need for both partners to understand each other's context of care
Johnson et al (2007)	Eritrea	Discursive	Collaboration between Stony Brook University and University of Asmara Eritrea. 10 post graduate nursing students		✓		To prepare post graduate nursing students for an advanced practice and faculty role with Master level qualifications in specialties	Review of faculty and student experience completing the distance education model	All students successfully completed the program and are now contributing as educators at University of Asmara

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
							including midwifery		
Lacey-Haun and Whitehead (2009)	South Africa	Discursive	From the University of the Western Cape, South Africa Nursing Faculty, 12 department chairs in the first 12month of the program and 11 department chairs in the second 12 months of the program			✓	To evaluate the modification of an American model of academic leadership training for utilization in an African university and to pilot test the efficacy of the resulting model.	Collaboration to revise and pilot test an academic leadership program for faculty	Leadership program was successfully modified, faculty participated in training activities and implemented the program in other universities
Maclean and Forss (2010)	Zambia, Tanzania, Uganda	A qualitative study using interviews, non-participant observation, an internet survey and review of records.	Africa Midwives Research Network (AMRN) chairperson and secretariat. Focus groups and individual interviews with AMRN focal people and members, stakeholders and participants from education programs in Zambia, Tanzania and Uganda.	✓		☐	To evaluate the strengths and limitations of the AMRN and provide feedback and direction to the network and the funding body.	Evaluate strengths and limitations of AMRN by Swedish International Development Cooperation Agency (SIDA) which had financed a technical collaboration between the Karolinska Institute (KI), Stockholm and AMRN.	Provision of biennial conferences which have disseminated information and research to some participants. Curriculum changes, introduction of research methodology into the education of teaching staff, changes in policy and practice.

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
Mogobe et al (2009)	South Africa, Botswana, Tanzania, East Africa, Kenya, Rwanda, Niger and DRC.	Discursive	Individuals from eight host universities and consortium universities.		✓		Outlines the rationale and context of the Collaboration in Higher Education for Nursing and Midwifery in Africa (CHENMA) project. Focusing on the conditions in Africa that hamper the development of nursing and midwifery.	CHENMA is a project of collaboration between South African and other African nations to create Master degree program.	Curriculum review. Includes developing modules, teaching, research supervision and evaluation of teaching-learning processes.
Parfitt et al (2008)	Tajikistan	Discursive	AKHS, the WHOCC GCU, the WHO and the MoH		✓		The aim of the nursing development project was to provide an infrastructure of training and education that would support the development of professional nursing in Tajikistan	Introduction of new curriculum, four expatriate nurses funded to support the program. Local capacity building. Workshops, Senior nursing consultant from WHO CC, A regional nursing centre was established, Leadership workshops, mentorship training programs	Raised standards of nurse practice and education. National recognition of the key role of nurses, Successful voluntary collaboration between partners.

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
Pons et al (2002)	Philippines	Discursive	16 of the 27 program-affiliated schools: 8 nursing and 8 midwifery schools. Respondents included 29 faculty members, 210 students, 16 school principals/deans and 16 school clinic administrators		✓		To assess the impact of the preservice program since its closeout in 1998. To determine the current capacity of the participating nursing and midwifery schools to implement the strengthened family planning (FP) and reproductive health (RH) preservice program, and to assess the institutionaliza tion of the interventions.	Faculty needs assessments and refurbishment of FP clinics affiliated with the schools, FP and RH clinical skills update courses for providers, FP/RH clinical training skills (CTS) courses for faculty and providers, production of curriculum and support materials, procurement of teaching aids and equipment, faculty training in infection prevention and FP	A review 3 years later revealed faculty still working in schools, strengthened FP/RH curriculum, improved clinical instruction to students and clinical services to clients, national accreditation of the FP/RH and CTS course, Implementation of competency based teaching methods
Sherwood & Liu (2005)	China	Discursive	Two programs: 1. The committee on Graduate Nursing Education (COGNE) 1988-1992 and 2. Program on Higher Nursing Education Development			✓	Description of outcomes of 2 projects to develop graduate nursing education in China	1. COGNE: 15 Chinese nurses obtained Master of Science in Nursing degree from USA university but only 4 returned to China. 2. POHNED 84 Chinese nurses obtained Master degree from in-country Chinese universities	COGNE: 1 graduate developed translated resources for nursing education, 1 obtained PhD and all 4 returnees contributed to the development of POHNED. POHNED

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
			(POHNED) 1993-2001					supported by regional partners from Thailand	graduates have increased capacity for research, teaching, administration and leadership.
The RESPOND Project (2012)	Kenya	Discursive	Interviews with 192 stakeholders between Nov 2011 and Mar 2012. Included representatives of regulatory bodies, training institutions, the MOPHS, MOMS, collaborating partners, students and graduates (nurses, nurse-midwives, clinical officers and medical officers)		✓		To gather in-depth information about the state of preservice LA/PM training in Kenya and to make recommendations for improving that training.	The team asked informants about the FP tasks of recent graduates, preservice preparation for those tasks, the balance of theoretical and practical training, and the application of the latest RH curriculum. Availability of contraceptives, medical equipment, instruments, and expendable supplies needed to provide LA/PM's at clinical sites were assessed.	Pre-service attention to FP varies across institutions. Too little time spent on clinical skill acquisition, little incentive, few instructors, poor ratio, competency based skill requirement does not allow for individual capability, limited simulation supplies, disconnect between what is expected and capability of graduates
Turkmani et al (2013)	Afghanistan	Mixed methods approach - qualitative and quantitative with use of interviews and focus groups	138 graduated midwives and 20 key informants comprising of stakeholders and 24 focus groups with female residents of	✓			To improve the pre-service midwifery education program through identification of its strengths	Examined program strengths and weaknesses. Measured perceptions of the program, community impact and barriers to provision of care. Gathered perceptions of	Evaluation of pre-service midwifery education program identified strengths and identified areas for strengthening.

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
			midwives catchment areas in eight provinces in Afghanistan				and weaknesses	recently graduated midwives field experience. Made recommendations for program improvement.	
Usher et al (2012)	Cook Islands, Fiji, Kiribati, Marshall Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu	Discursive	Nurse leaders, tutors and students.		✓		To improve the quality of nursing services in Pacific Island countries through enhancing the quality of nursing and midwifery educational programs and services.	Assess the implementation into theoretical and clinical curriculum of outcome competencies in Pacific Island countries using WPSEAR common competencies as benchmark. Assess nursing schools in their implementation of relevant academic standards for nursing and midwifery education relevant to the Pacific	Varied existence and use of competencies for nursing and midwifery education and practice, scopes of nursing and midwifery practice, legislative and regulatory processes, and standards of nursing and nursing education. WPSEAR competencies difficult to understand and implement, lacking in primary health care focus and some countries in the region require their own national competencies and do not fit into a regional framework

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
Uys and Middleton (2011)	South Africa, Kenya, Tanzania, DRC, Mozambique, Rwanda	Descriptive qualitative study, single case study design including group interviews, individual interviews, email questionnaires	Nurse academics from the consortium of six universities in Southern Africa		✓		To explore whether an international partnership, developed around a community of practice partnership model can contribute to the understanding of internationalization as a symmetrical process of engagement in learning/teaching in nursing education.	Examines the CHENMA as a case study and asks five open ended questions of the nurse academics from six consortium universities which formed the community of practice	Evidence of a community of practice, voluntary involvement is highlighted as an important aspect of the project. The south-south character of the project was seen as a central focus. Staff exchange, building skills and knowledge in faculty, creating an ethos that enables international and inter-cultural competence was reported as important.
Voetagbe et al (2010)	Ghana	Mixed method study using structured self-administered questionnaires.	74 midwifery tutors from all 14 midwifery schools in Ghana	✓			To assess the capacity and willingness of midwifery tutors to teach comprehensive abortion care (CAC) which includes: contraception, post abortion care (PAC) and legal	The study assessed knowledge of the law on abortion and content of tutors' pre-service training, motivational and inhibiting factors to teach CAC and personal beliefs versus professional responsibility.	Despite Ghana having a National Reproductive Health Policy including PAC and CAC, only 18.9% of tutors were aware of legal indications for safe abortion. 74.3% of tutors stated that their pre-service training did not include Ghanaian

Reference	Country	Research methodology	Sample/ participants	M*	N/M*	N*	Aims/ Objectives	Interventions	Findings
							termination in Ghana		abortion law and GHS policy. Religious bias and lack of clinical competency were also barriers to teaching CAC
Wright et al (2005)	Albania, Macedonia and Romania. Central America and the Caribbean	Discursive	46 nurse scholars who participated in the International Capacity Building Program for Nurses (ICBN)		✓		Participation in 3 month residential training at CIED Georgetown University and follow-on support over a 4 year period.	3 month residential included courses on International aspects of health, Educational Development, Leadership and Professional development. Follow-on program included a web-based distance learning course in research, a course in project management and a course in improving population health through community partnership. Teamwork to produce a strategic plan for strengthening nursing and midwifery in their home country/region.	Increased professional capacity in the following areas: Empowerment; Nursing Practice; Professional organizational development; New program development; Education; Legislation; and Ministries of Health. Individual changes in roles/opportunities and Faculty growth.

*Participant Sample: M=Midwifery only; N/M= Nurse/Midwife; N=Nursing only

Findings

The majority of papers included in this review come from Africa (n=9) with others included from South America (n=2), South East Asia (n=2), Central Asia (n=2), Balkans (n=1), South Pacific (n=1) and South Asia (n=1) with notable knowledge gaps in Central America and coverage across all regions. Three papers focused on nursing only, five papers midwifery only and 10 papers a combination of nurse-midwifery that may reflect education programs prioritizing the attainment of nursing qualifications followed by midwifery training. The papers described approaches to building educator capacity to improve teaching and practice across three key themes. These are: using curricula review to strengthen knowledge and skills in practice and teaching, building capacity in leadership, management and research skills, and finally, participation in communities of practice to increase access to information and resources (Figure B).

Figure B: Key findings of the review and citations. *Research papers shown in italics.*

Developing educator's knowledge and skills in **practice and teaching** as part of curricula review/update

Fullerton et al, 2011; Pons et al, 2002;The RESPOND Project, 2012; Usher et al, 2012; *Akiode et al 2010; Turkmani et al 2013; Voetabe et al 2010*

Building midwifery educator capacity in teaching and practice

Improving educator's capacity in **leadership, management and research**

Evans et al, 2013; Johnson et al, 2007; Lacey-Haun & Whitehead, 2009; Parfitt et al, 2008; Sherwood & Liu, 2005; *Amaral et al 2012*

Involving educators in a **community of practice** to increase access to information and resources

Girot & Enders, 2004; Mogobe et al, 2009; Wright et al, 2005; *Maclean & Forss, 2010; Uys &Middleton, 2011*

Using curricula review/update to improve educator skills and knowledge

Seven papers focused on developing midwifery educator's skills and knowledge as part of the curricula review process. Four of the papers were discursive (Fullerton et al. 2011; Pons, Rawlins & Griffey Brechin 2002; The RESPOND Project 2012; Usher et al. 2012) and three based on primary research (Akiode et al. 2010; Turkmani et al. 2013; Voetagbe et al. 2010).

The methods of engagement between international consultants who are the capacity 'builders' and national participants who are the capacity 'buildees' are described in all the discursive papers that may indicate a focus on donor activity in this area. International capacity buildees used role plays, group discussion, simulation and clinical demonstrations to teach updated curriculum content to the national educators (Fullerton et al. 2011; Pons, Rawlins & Griffey Brechin 2002). If issues arose from working in a cross-cultural partnership, they were not described in any of the papers included in this section.

Master-trainer or train-the-trainer approaches involving key national educators featured in papers describing large projects where a national curriculum update required the involvement of multiple institutions (Akiode et al. 2010; Pons, Rawlins & Griffey Brechin 2002; Usher et al. 2012). An example was provided from Nigeria by Akiode et al. (2010) where a master-trainer model using a combination of theory and clinical practice was used to develop the knowledge, skills and attitudes of 169 midwifery educators from all 70 training institutions in Nigeria. Improvements noted from this approach included the implementation of contemporary adult education methods, which involved the use of simulation materials and sessions delivered by clinicians from teaching hospitals. The pre and post-test evaluation of this program demonstrated successful outcomes including an increased level of midwifery educator's knowledge and skills relating to both content (post-abortion care) and teaching (Akiode et al. 2010). After the intervention, the results of surveyed midwifery graduates indicated that there was an increase in exposure to theoretical teaching and clinical practice in the area of post-abortion care, greater availability of equipment in the clinical area and more learning support from clinicians (Akiode et al. 2010).

International educators reported that national educators were sometimes reluctant to change their teaching methods and clinical practice (Akiode et al. 2010; Fullerton et al. 2011; Pons, Rawlins & Griffey Brechin 2002; The RESPOND Project 2012; Turkmani et al. 2013; Usher et al. 2012; Voetagbe et al. 2010). For example, Usher et al. (2012) reported that, despite multiple collaborations with educators and administrators from the Pacific Island region to update curriculum with regional

competency standards, some educators failed to implement the recommended changes when they returned to their home country. Reasons for this were noted in the RESPOND project report indicating that national midwifery educators were not always skilled or motivated to use contemporary adult education methods to improve the quality of teaching (The RESPOND Project 2012). In another study, national midwifery educators were found to be adversely influenced by their peers who were reluctant to employ 'modern' teaching methods and use problem-based learning in their institution (Fullerton et al. 2011). In another study Voetagbe et al. (2010) assessed the capacity and willingness of 70 Ghanaian midwifery educators to teach and support clinical learning associated with comprehensive abortion care. Despite the fact that post-abortion care is considered to be an additional competency (International Confederation of Midwives 2010) and may not be present in all midwifery education curricula, the findings indicated that midwives found teaching the material to be challenging due to a lack of wider knowledge, skills and personal beliefs. Midwifery educators displayed an inadequate knowledge of the law on abortion, a religious belief bias against teaching abortion and a lack of clinical competence in using manual vacuum aspirators. Although Voetagbe et al. (2010) identified the barriers and motivators for midwifery educators to teach comprehensive abortion care, the authors did not report any efforts that were undertaken to update the curriculum or capacity of the midwifery educators (Voetagbe et al. 2010). Such insight may have provided useful strategies to ensure a comprehensive curriculum to facilitate effective midwifery education.

Other challenges related to the lack of a standardized curriculum and inconsistent approaches to supporting student's learning within the country (The RESPOND Project 2012; Turkmani et al. 2013), or within a region (Usher et al. 2012) were described in the papers in the review. These challenges were found to create large variations in graduate competency which was complicated by the fact that the curriculum was not always aligned with national health plans. Although a standardized curriculum with evidence-based content was identified as a strength of a capacity building program in Afghanistan (Turkmani et al. 2013), there were some criticisms that midwifery educators displayed a lack of professionalism by behaving disrespectfully to the students and lacked skills in the use of audiovisual aids.

A common theme across the papers was the inadequate quality and number of educators available to provide clinical supervision to students and a lack of competency-based assessment methods to assess student learning (Fullerton et al. 2011; Pons, Rawlins & Griffey Brechin 2002; The RESPOND Project 2012). Turkmani et al. (2013) analysed how a lack of midwifery educators in Afghanistan were found to impact on student learning with high ratios of students to educators making it difficult to

effectively supervise clinical skill acquisition. In addition, the role of the midwife was not supported by the medical profession and the skills of midwifery clinicians in the clinical placement sites were not consistent with the clinical practice of the midwifery graduates. Both these issues were reported to cause tension in the clinical area. The lack of equipment and skilled staff in the clinical area affected the provision of clinical learning support with results indicating that midwifery students were often expected to mentor medical students and clinicians (Turkmani et al. 2013).

In summary, papers included under this theme found that approaches used to build midwifery educator's capacity when reviewing or updating curricula were more successful when incorporated into system wide improvements. Being able to apply theoretical knowledge in a supportive clinical environment was reported to improve student outcomes and led to sustainable improvements in midwifery education.

Improving educator's skills in leadership, management and research

Improving skills in leadership, management and research to build educator capacity was a theme identified in five discursive (Evans, Razia & Cook 2013; Johnson et al. 2007; Lacey-Haun & Whitehead 2009; Parfitt, Mughal & Thomas 2008; Sherwood & Liu 2005) and one research paper (Amaral et al. 2012). The papers reported on findings from nurse-midwifery studies as there were no midwifery-specific papers. All discursive papers emphasize the importance of addressing cultural differences between the international capacity builders and the national buildees to ensure that approaches to building capacity are effective and culturally relevant (Evans, Razia & Cook 2013; Johnson et al. 2007; Lacey-Haun & Whitehead 2009; Parfitt, Mughal & Thomas 2008; Sherwood & Liu 2005). However, no specific strategies are provided with regards to best practice in this area.

All five discursive papers argued that the development of personal, professional and disciplinary leadership skills were important for educators to represent the profession nationally or internationally and increase the profile of the discipline (Evans, Razia & Cook 2013; Johnson et al. 2007; Lacey-Haun & Whitehead 2009; Parfitt, Mughal & Thomas 2008; Sherwood & Liu 2005). Conducting research was also identified as an important role for educators to assist them to remain current in teaching and clinical practice and contribute to the body of professional knowledge (Lacey-Haun & Whitehead 2009).

Having knowledge and skills in management was reported to assist educators in institutions gain advanced qualifications and provided more options for career progression. Educators who participated in leadership training reportedly increased their levels of self-confidence, critical thinking

and problem solving skills (Parfitt, Mughal & Thomas 2008; Sherwood & Liu 2005). In addition improved leadership skills were found to be associated with improved student outcomes, contributing to a quality workforce (Amaral et al. 2012; Lacey-Haun & Whitehead 2009).

Two papers from China and Eritrea described the use of a study abroad model to formally upgrade midwifery educator's teaching qualifications specifically in leadership and management (Johnson et al. 2007; Sherwood & Liu 2005). However, studying abroad was not seen as a successful strategy, as educators did not always return to their home country after the training. A similar finding was found in Africa (Mogobe, Bruce & Meyer 2009) where the cost of sending educators to study abroad made this approach prohibitive. The study abroad models in China and Eritrea were successfully revised to include in-country and regional mentoring and distance education modules which resulted in all educators returning to their previous posts with improved skills in leadership and management.

Distance education modules were found to be beneficial to building educator's skills when used in combination with short residential training (Lacey-Haun & Whitehead 2009). International facilitators used training methods which included the identification of individual personality profiles, the promotion of self-assessment and reflection and the application of self-regulation skills. This was found to result in sustainable outcomes for educators who completed leadership training as they were able to go onto become facilitators for similar training in other African countries (Lacey-Haun & Whitehead 2009).

Email correspondence between the capacity buildees and builders used as a means to facilitate completion of distance education modules were described in two papers as problematic due to differing cultural perceptions of communication, time and work priorities (Johnson et al. 2007; Lacey-Haun & Whitehead 2009). Ongoing mentoring from international counterparts and national peer support were highlighted as important approaches to ensure that leadership program objectives were met and learning outcomes achieved (Evans, Razia & Cook 2013; Johnson et al. 2007; Sherwood & Liu 2005). Sherwood & Liu (2005) noted that leadership and management training was conducted in English to enable increased access to evidence based resources, however the English proficiency of educators was not outlined therefore it is unclear if language difficulties were encountered. The authors also described the translation of resources into Chinese to enable greater dissemination of teaching and learning and improving communication within the faculty (Sherwood & Liu 2005).

Two papers, from Eritrea and Tajikistan reported the benefits of including computer and internet literacy into the residential training of a leadership training program. Both studies found

improvements in participant's confidence to use electronic methods to complete course requirements (Johnson et al. 2007; Parfitt, Mughal & Thomas 2008). Effective communication and interpersonal skills were reported to be essential for educators to enable multi-cultural and international collaboration between both parties involved in capacity building (Fullerton et al. 2011; Lacey-Haun & Whitehead 2009). Such skills enabled educators to build capacity in academic management, student affairs and research paper writing. Communication and negotiation skills were also found to be enhanced through multidisciplinary leadership training that also provided opportunities for networking and building relationships between cadres of health care professionals (Lacey-Haun & Whitehead 2009; Parfitt, Mughal & Thomas 2008). Fullerton et al. (2011) also identified that incorporating leadership training in faculty development programs facilitated effective role modelling and increased professionalism.

The FAIMER project, a two year part-time training program for nursing, dentistry, pharmacy and medicine educators in Brazil provides another example of leadership and management capacity building (Amaral et al. 2012). The moderated course structure which consisted of both residential schools and distance learning was evaluated positively by the participants. Despite methodological weaknesses, self-reported pre and post program surveys found that participant's knowledge and skills had improved across program areas. The majority of participants succeeded in fulfilling the course requirements that included contributing to research and curricula improvements and increasing the professionalism of their cadres by speaking at conferences and contributing to faculty development at their institutions (Amaral et al. 2012). These findings are consistent with discursive reports in this review which highlight the importance of midwifery educator participation in research to remain current in their clinical practice and teaching (Lacey-Haun & Whitehead 2009).

In summary, building midwifery educator's skills in leadership, management and research can increase individual's confidence and skills. Personal confidence improves educator's self-efficacy and ability to advocate for resources, share knowledge and strengthen education systems. Participating in research and disseminating research findings was reported to strengthen the status of the midwifery profession and ensure the use of contemporary curricula and teaching methods. All discursive papers included in this section indicate that international capacity builders who are culturally sensitive and have knowledge about the country, context and language are more likely to achieve improved outcomes.

Creating a community of practice

Three discursive (Girot & Enders 2003; Mogobe, Bruce & Meyer 2009; Wright et al. 2005) and two research papers (Maclean & Forss 2010; Uys & Middleton 2011) reported on the development of midwifery educator capacity through the establishment of communities of practice involving national, regional or international collaboration. Alternate terms are used within the papers to describe collaboration or the process of working together to improve the quality of midwifery education including internationalization and participation.

Communicating using a common language and having access to evidence based resources were important considerations when working in an international or regional partnership (Girot & Enders 2003; Mogobe, Bruce & Meyer 2009; Wright et al. 2005). Strategies were described to facilitate communication prior to the commencement of one collaborative education project including the requirement that all partners were proficient in the English language (or another common language) and the provision of a three month intensive language training for national educators who were not fluent (Wright et al. 2005). In addition, establishing context specific goals when collaborating between countries was considered important when setting up an international partnership (Wright et al. 2005). Culture was acknowledged as having an impact on capacity building and it was emphasized that both parties benefit from knowledge of the others culture and context in order for communication to be effective (Girot & Enders 2003; Uys & Middleton 2011; Wright et al. 2005). An example of a successful collaboration between educators from different countries is described by Uys & Middleton (2011). The South African capacity builders involved in the Collaboration in Higher Education for Nursing and Midwifery (CHENMA) were described as enabling their East African counterparts to feel respected and empowered during the project. The South-South nature of the project was identified as a major strength and the voluntary involvement of the capacity builders from South Africa was an important characteristic to reduce power imbalance between the countries (Uys & Middleton 2011). In addition to building capacity at an individual level, the project assisted in building institutional capacity by strengthening universities' ability to interact with major stakeholders and prepare them for international involvement. Some additional benefits for the institutions were the establishment of ongoing international relationships between midwifery educators, improved university status and increased staff motivation to use contemporary adult education methods and evidence based practice. Challenges were found where collaboration included supervisory relationships across institutions. Supervising the work of others via the internet was problematic due to lack of infrastructure, poor computer literacy or decreased student motivation to communicate electronically (Uys & Middleton 2011). Strategies that include not only a

common language but equivalent levels of information literacy and computer infrastructure may also be useful requisites to collaborative endeavors.

Engaging with multiple stakeholders (recipients of care, clinical service providers, professional organisations, members of the health department) was noted as essential to ensure that support is available for the capacity building interventions to be implemented and sustained (Girot & Enders 2003; Wright et al. 2005). For example, Pons, Rawlins & Griffey Brechin (2002) described how collaboration between individuals, organisations and the health system in the Philippines enabled a sustained change in contemporary clinical practice up to two years after the initial curriculum review and update. Engaging in regional or international partnerships in order to meet the health needs of an increasingly globalized population was identified as being beneficial for national educators in two papers (Mogobe, Bruce & Meyer 2009; Wright et al. 2005). These papers identified that regional collaboration improved midwifery educators capacity to work across cultures and had a lasting positive impact on the development of curriculum, practice and professional association (Mogobe, Bruce & Meyer 2009; Wright et al. 2005).

Sharing knowledge and resources in a supportive environment was reported to improve teamwork, inter-disciplinary collaboration and professional development (Girot & Enders 2003; Mogobe, Bruce & Meyer 2009; Wright et al. 2005). For example, team building exercises, lectures, and site visits were used to facilitate teaching and learning in an International Capacity Building Program for Nurses (ICBN) where national educators were supported in small groups to develop strategic plans for how to improve capacity in their home country. Group work was evaluated as beneficial for building confidence in working with others and it was found that capacity buildees had increased confidence to present their strategic plans to Ministries of Health, the World Health Organization, and at national and international meetings (Wright et al. 2005)(Wright et al. 2005).

A lack of networking and alliance between countries was found to contribute to the delayed development of midwifery education (Mogobe, Bruce & Meyer 2009). However, increasing numbers of qualified educators within a region was reported to contribute to the advancement of the midwifery profession as educators who had access to professional development opportunities were more likely to engage with stakeholders and contribute to all levels of decision making and policy development. (Wright et al. 2005). Regional collaboration was also identified as a cost effective way to develop midwifery educator capacity in smaller LMIC where it may not be financially feasible to have in-country professional development programs to upgrade midwifery educator's qualifications

to Masters or PhD level. An example of networks within a region has been described by Maclean & Forss (2010). The African Midwives Research Network (AMRN) created a network of professionals who could support each other, share resources and contribute to midwifery faculty development (Maclean & Forss 2010). However, a lack of availability and access to electronic forms of communication meant that the majority of members who resided in less developed countries in Africa had limited interaction with others and could not access electronic research findings. Some members of the network displayed evidence of improved knowledge, practice skills and attitudes towards care of women during pregnancy and labour which enabled revisions of midwifery curricula in their institutions to include more research in theoretical and clinical teaching (Maclean & Forss 2010).

In summary, approaches using collaboration to build capacity of midwifery educators has been reported to increase access to resources, strengthen alliances and may be a cost effective strategy to upgrade teaching qualifications. During an international partnership to build capacity, it was acknowledged that learning occurs both ways and the capacity builders often experienced cultural learning which was essential to the successful implementation of the project.

Discussion

This review focuses on approaches used to build midwifery educator's capacity in teaching. The review focused on educators working in midwifery training institutions, regardless of the length of the curriculum or whether the institution provided a direct-entry or post-graduate qualification. This review identified a variety of approaches to develop the quality of midwifery educator's knowledge and skills in teaching and clinical practice, with some overlap of approaches described within the papers. As primary evidence from research papers was limited, discursive literature was included to provide contextual information to enrich an understanding of the environment and challenges affecting the capacity building of midwifery educators in LMIC. Overall, the papers showed that a lack of trained and motivated midwifery educators and outdated curricula affected the quality of midwifery education. It was also reported that support to clinical teaching sites through the provision of material resources and continuing professional development for clinicians would be useful to minimize the theory-practice gap experienced by midwifery educators and student midwives during clinical placement. Not all papers that conducted assessments of curricula and midwifery educator capacity have implemented or evaluated their recommendations which limits the ability of this review to critique suggested strategies. A lack of research studies specific to midwifery was noted together with an absence of a framework for planning, implementing and evaluating midwifery

educator development in LMIC. The findings of this review provide insights for developing midwifery educator capacity at individual, institutional and system levels that requires active leadership and support from midwifery faculty members with appropriate professional skills and attributes. This review identified a number of approaches to building midwifery educator capacity that were included as part of curriculum review or update, focused on strengthening leadership, management and research skills and collaborating in a community of practice. These approaches are described in the following section.

Leadership as an enabling factor

If educators have completed a leadership and management program and hold positions of influence, there is evidence that they take a more active role in sharing research and education-related information at conferences, meetings and workshops, assisting to build a critical mass of educators within their schools, regions and country (Amaral et al. 2012; Lacey-Haun & Whitehead 2009). In most resource poor country settings there is a breadth of knowledge and experience but midwifery educators are often not empowered to act as change agents (Voetagbe et al. 2010). There is evidence to suggest that the poor status of women and midwifery in some LMIC pose barriers for midwifery educators to influence policy at institutional and health system level (Bacon et al. 2014; Turkmani et al. 2013). This review found that leadership and management training enabled midwifery educators to communicate more effectively with heads of department, university administration and ministry of health officials to advocate for resources for midwifery education (Amaral et al. 2012)(Amaral et al. 2012). In countries where there is a motivated midwifery professional association or academic community, there is increased midwifery representation in national level discussions and policy development (Amaral et al. 2012; Turkmani et al. 2013). Leadership and management training combined with building knowledge and skills in teaching methodologies and clinical midwifery practice is an effective strategy to build midwifery educators confidence and competence (Johnson et al. 2007; Lacey-Haun & Whitehead 2009; Parfitt, Mughal & Thomas 2008).

Individual, institutional and system-wide approaches to building midwifery educator capacity

Concurrent strengthening of organisations and systems to complement individual capacity building was highlighted to improve the quality of midwifery educator teaching and clinical facilitation (Akiode et al. 2010; Maclean & Forss 2010; Turkmani et al. 2013; Voetagbe et al. 2010). There is little evidence, however, about how such comprehensive approaches can be achieved. There is high level acknowledgement that a collaborative approach involving relevant stakeholders in education facilities, regulation authorities and clinical placement sites is useful and has a more sustainable

impact on midwifery educator satisfaction and retention than a single-level approach (UNFPA WHO ICM 2014)(The State of the World's Midwifery 2014). Developing policy, infrastructure and resources and investing in in-service education are supportive strategies that can assist the professional development of midwifery educators and therefore better prepare students for midwifery practice (International Confederation of Midwives 2013; World Health Organization 2009, 2013).

Considerations for individuals providing faculty development in low-resource countries

The paper by Maclean & Forss (2010) highlighted the importance of considering cultural competence and collaboration when planning a program to develop midwifery education. Establishing trust and mutual respect are key to developing an effective partnership and prevent cultural misunderstandings that can affect the achievement of capacity building outcomes (Maclean 2013). International collaborative efforts have been accepted more readily in countries where there has been an established relationship in health development or education prior to the implementation of an initiative to build the capacity of midwifery educators (Maclean 2013). Having knowledge of the context and the different working and living conditions helps to prepare international consultants who provide development assistance (Maclean 2013). The review findings show that where possible, in-country programs were preferred over sending educators outside their country for training and development highlighting the importance of context specific capacity building. It was identified across both discursive and research papers that there was variable internet connectivity, poor computer literacy and a preference for face-to-face learning. This meant that externally-moderated internet-based learning modules were not well accepted in LMIC and would be more successful with an in-country facilitator to support learning.

Limitations

The inclusion of only English language publications is a limitation of this review. Although research from seven regions have been included, not all member countries or regions of the ICM or WHO (ICM 2014; WHO 2015) have published quality research in English language which limits the representation from the other regions.

Conclusion

The approaches identified in this review to build midwifery educator capacity were related to curriculum review and skill development, leadership, management and research training and collaborating in a community of practice. It is acknowledged that focusing on education alone is not sufficient to build an effective midwifery workforce. Support to build education institution

infrastructure, resources, systems and regulation is also needed to produce a practice-ready midwifery workforce who can meet the needs of women and children (UNFPA WHO ICM 2014). Participation in leadership and management training enables midwifery educators to engage at both national and international levels to advocate for professional development opportunities for midwives. In a resource-poor environment, collaboration between countries (internationalization) can be beneficial given there is an increasingly global midwifery education workforce. Educating midwifery educators abroad were not found to be effective in this review and a lack of infrastructure and poor computer literacy in LMIC limited the use of internet-based distance learning modules. There was a lack of literature relating to the use of a framework to guide capacity building approaches and how the outcomes of existing interventions are being monitored and evaluated. Implementing competency based assessment methods into teaching and learning has also not been thoroughly reported nor how midwifery educators could engage with their institution or system to ensure sustainability. More research in these areas and the development of a framework to guide approaches to build midwifery educator capacity in LMIC is needed.

The next chapter will describe the methods used to explore the approach to capacity building in an initiative in Papua New Guinea influenced the ability of the midwifery educators to improve their midwifery teaching.

CHAPTER 3 – METHODOLOGICAL APPROACH AND THEORETICAL PERSPECTIVE

Introduction

This chapter presents the methodological approach and the justification for the research design. The theoretical perspective employed in this study was the Theory of Planned Behaviour, a social cognition theory used to explain and predict behaviour. How the theoretical framework is used to inform the study will be described in more detail later in this chapter. This chapter also provides a brief summary of mixed method research and includes a reflection on the benefits and challenges of using this method, as well as my position and role in the study. Information is also provided on the ethical considerations, setting, participants, data collection and analysis.

This study was conducted in two phases and has been described as a sequential exploratory design where analysis of the findings from the primary qualitative phase were used to develop a data collection tool used in the secondary phase of the study (Wisdom & Creswell 2013).

During Phase 1, a qualitative exploratory design was used to explore the views of midwifery educators working in a capacity building initiative, the PNG MCHI. Phase 2 involved a quantitative descriptive survey of international and national midwifery educators working in capacity building initiatives in other LMIC to determine if the conclusions drawn in Phase 1 were comparable and transferable to other contexts. The specific research methods for Phase 1 are explained in Chapter Four and for Phase 2, in Chapter Five.

Table 1 provides an overview of the location of the specific methods sections within the thesis chapters.

Table 1: Location of methods sections within the thesis chapters

Chapter	Type of research design described	Methodological description

Chapter 3: Methods	Mixed methods	Sequential exploratory
		    Reflexivity
		    Ethics
		    Consent
		    Confidentiality
		    Potential Risks

Chapter 4: Phase 1 Methods and Findings	Qualitative exploratory case study	Semi-structured individual interviews

Chapter	Type of research design described	Methodological description
		Participant selection Sampling Recruitment Sample Setting Data Collection Data Analysis
Chapter 5: Phase 2 Methods and Findings	Descriptive quantitative	Survey Participant selection Sampling Recruitment Sample Setting Data Collection Data Analysis

Mixed methods research

There are different research methodologies and methods which could be chosen to answer a researcher's question (Harder 2010; Yin 2012). The choice of design is driven by the nature of the question and it is therefore important to outline the process used and viewpoint of the researcher (Yin 2012).

A sequential exploratory mixed methods design was chosen for this study as it enabled consideration of the complex LMIC context in which midwives were working to improve capacity in midwifery education. The choice to follow either a qualitative or quantitative research paradigm depends on the research question (Nagy Hesse-Biber & Leavy 2010; Yin 2012). A quantitative design is more likely to answer questions related to objective measurement whereas a qualitative design is used to answer questions starting with 'how' and 'why' which enables participant's views, perceptions and the lived experience to be explored (Baxter & Jack 2008; Creswell 2013; Harder 2010).

A key characteristic of mixed methods research is that qualitative and quantitative data are combined in a single study in order to answer the research question (Cameron 2009; Creswell 2013; Wisdom & Creswell 2013). When done correctly, combining methods can allow for a more complete collection and analysis of the data, enhances the rigor of the findings and can help communicate the research to a wider audience (Cameron 2009; Wisdom & Creswell 2013). Mixed methods research has been used extensively in social and human sciences to broaden understanding and enable a triangulation of data to strengthen findings. It has been suggested by Creswell (2013) that the four aspects of timing,

weighting, mixing and theorizing need to be considered when planning to use a mixed method approach.

For this study, a two-phase sequential method was chosen over a concurrent method of data collection. This timing was chosen to enable an in-depth exploration of the research question in the first phase of the study at a single site with a smaller participant sample. A case study of the PNG MCHI was chosen for this phase. The case study is described more fully in Chapter Four. Using a sequential method allowed for the researcher to analyse the data and use the findings to inform the development of the data collection tool for the second phase using a more diverse sample.

The priority or weight given to the qualitative and quantitative component was also a consideration in the planning of this mixed method study. One purpose of collecting the data sequentially was to connect or relate the findings between the two participant samples. In this study, even though the findings from each Phase are of equal value, more time and effort was spent on Phase 1 as the primary qualitative phase, because an inductive approach was taken to generate themes and the volume of data was greater.

The mixing of the data in this study occurred at two stages. The first was when the findings from the first phase were used to inform the development of the data collection tool used in the second phase. This form of mixing is a common process in a sequential mixed method design (Creswell 2013) where the research is connected between a data analysis phase and a subsequent data collection phase. The second mixing was during the final analysis which combined the findings from both phases of the study to develop a conceptual model representing the study findings as a whole.

It is common in mixed method research to use an overarching perspective to develop all phases of the research process (Creswell 2013). The Theory of Planned Behaviour (TPB) as the theoretical framework employed in this study, was used to guide the mixed method design by shaping the types of questions that were asked during the interviews and survey. A more detailed explanation of the theory and justification of its use will be discussed in the next section in this chapter.

This study explored both national and international educator's perceptions about working together to build midwifery educator's capacity within different country contexts. This diversity and complexity could not be explored by a single qualitative or quantitative method. Using a sequential exploratory mixed method design provided methodological flexibility and enabled aspects of the international partnership to be explained and generalize findings to the second phase of the study (Creswell 2009;

Wisdom & Creswell 2013). Another benefit of using this method was to enable the development of a data collection tool because existing instruments were not available.

In deciding on the methodology, I explored which other studies used this approach. For example, sequential mixed method research design has been used in a United Kingdom (UK) study to explore the role of education in developing compassionate health care practitioners. In this explanatory research design, a secondary qualitative phase was used to provide depth and understanding to the primary quantitative phase although both phases were reported to hold equal weight. The findings showed that it was essential for health care practitioners to be knowledgeable, clinically competent and research-informed in order to deliver safe and effective care (Bray et al. 2013).

Another example was from India. A two-phase embedded mixed method study aimed to explore teacher's attitudes and the barriers they faced teaching communicative English language in secondary schools in India and identified that the availability of teaching resources and English language proficiency were constraining factors. In this study, the second qualitative phase was considered to contribute the most weight to the conclusions drawn in the research (Christ & Makarani 2014).

Many sequential mixed methods research in either an education or health-related field similar to this thesis topic have used sequential explanatory designs with the quantitative phase preceding the qualitative phase. However in a study from Iran, the authors used a sequential exploratory design where the primary qualitative phase was followed by a quantitative phase. The study investigated the foreign language learning needs of nursing and midwifery students (Mazdayasna & Tahririan 2008). The first phase interviews explored, among other things, the instructor's attitudes toward language teaching and their perceptions of the needs of the students. The findings were used to develop a questionnaire survey for the second phase to expand on the findings and sought information on the types of skills which nursing and midwifery students needed to develop, what content and methodologies are appropriate and what factors should be considered in designing curricula for nursing and midwifery students. The research found that students beginning levels of English were low, instructors did not have requisite medical vocabulary or pedagogical skills, and the course design needed review (Mazdayasna & Tahririan 2008).

In the research described above, the mixed methods approach was described as suitable because the design allowed triangulation of different sources of data collected in multiple phases over a period of time. The use of both qualitative and quantitative methods allowed a deeper understanding of the topic under question and was also suitable for smaller sample sizes. Two-phase mixed methods

approaches have been used in social science, education and health research to explore relationships, teaching and behaviour (Christ & Makarani 2014; Hanson et al. 2005; Harwell 2011; Mazdayasna & Tahririan 2008) and for these reasons it was deemed appropriate to use this design for my study.

The sequential exploratory mixed method case study design was therefore the most appropriate variant of mixed methods methodology to be used. This method enabled the exploration of the diverse perspectives of participants who came from different countries and cultural backgrounds but who had similar professional roles and responsibilities. The design flexibility was necessary when exploring individual experience and process within different contexts as it accepts the relevance of the subjective human experience in relation to the research question (Yin 2009).

Ensuring that the scope of the study is not too broad and the objectives are achievable is another component of trustworthiness (Baxter & Jack 2008). In this study, the focal points under analysis were the international and national midwives who worked in midwifery education institutions in a capacity building initiative. Midwifery clinicians who provided clinical teaching to midwifery students in a practicum site were not included in the participant sample, as their role in facilitating student learning was governed separately to those educators working in an education institution. Educators who teach midwifery but who were not midwives were also not included as there are professional knowledge and skill differences between midwives and other cadres of health professionals (community health workers, nurses, doctors) and their practice may be informed by a different paradigm or model of care.

Theoretical perspective

A theoretical perspective which informs the research is described (Yin 2012) as being necessary but not always explicit in case study research as it can be in other social science research. In this study, the theoretical perspective of the research was not described in terms of being from a positivism, interpretivist or feminism standpoint (Crotty 1998) but rather in terms of a proposition which guided the design and informs the reader of the researcher's philosophical stance (Crotty 1998; Yin 2012). The theoretical framework used in this study was the Theory of Planned Behaviour (TPB). This theory and how it is used to inform the study is explained in the next section.

The Theory of Planned Behaviour

In addition to strengthening infrastructure and resources, capacity building is primarily concerned with enabling behaviour change to improve outcomes (Labonte & Laverack 2001; Lavender et al. 2009; Liberato et al. 2011). In the context of this study, behaviour change is related to the

international expatriate's adaptive behaviour to the environment and culture and the national host's reciprocal acceptance and utilization of the methods of teaching and facilitation of learning. The Theory of Planned Behaviour (TPB) is therefore the theoretical framework chosen to guide this study as it is concerned with the factors which influence an individual's intention to perform (or not) a desired behaviour (Ajzen 1991). Intentions and motivations are terms used interchangeably in behaviour change literature and thought to be key cognitive aspects determining whether an individual actually adopts a behaviour or not (Godin et al. 2008).

The TPB is a social cognition theory developed by psychologist Icek Ajzen in 1971. According to the theory, human behaviour is guided by three variables: beliefs about the likely outcomes of the behaviour and the evaluations of these outcomes (behavioural beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs), and beliefs about the presence of factors that may facilitate or impede performance of the behaviour and the perceived power of these factors (control beliefs) (Ajzen 1991).

It is thought that an individual's behavioural beliefs produce a favorable or unfavorable attitude toward the behaviour; normative beliefs result in perceived social pressure or subjective norm; and control beliefs give rise to perceived behavioural control. The combination of an individual's attitude, social norm and perception of behavioural control then influence the intention and actual performance of the behaviour in question.

There are several benefits drawn from the field of applied psychology which support using the TPB to inform the analysis and further development of interventions for behaviour change (French et al. 2012; Gardner et al. 2010; Michie et al. 2008). The use of theory in designing behaviour change interventions has been reinforced as a vital preliminary step to ensure that the theoretical mechanisms of changing causal determinants of behaviour are understood. In addition, using a theory allows clearer testing and evaluation, thus improving quality and transferability of interventions. Finally, it has been stated that using the TPB can support improving interventions across different contexts, populations and behaviours (Michie et al. 2008).

The TPB, unlike other social cognition theories, examines the actual performance of behaviour and considers external influences specific to the cultural context whereas alternative theories (social cognitive theory, theory of interpersonal behaviour) look only at the interaction between individuals (Godin et al 2008). Considering environmental factors in addition to individual level factors is relevant for this study because many factors in the LMIC environment impact on the individual's ability to

improve midwifery teaching (Homer et al. 2014; UNFPA WHO ICM 2014; World Health Organization 2010, 2016e).

A theory of behaviour change was chosen because the aims of the research were to explore how midwifery educators work together to improve midwifery teaching and learning. Working successfully in international partnerships involves challenges related to differences in culture, values and standards which impacts on an individual's ability to introduce change (Maclean 2011). Understanding human behaviour and being able to facilitate positive behaviour change are key factors which determine an effective collaborative partnership (French et al. 2012; Gardner et al. 2010; Hardeman et al. 2002). By using the TPB as a lens through which to view the research findings, it was possible to understand which factors were associated with improved midwifery teaching and would benefit from being strengthened. In addition, factors which constrained capacity building could also be identified and enable strategies to be put in place to decrease their influence on behaviour.

Reflexivity and my position in the study

I am an Australian trained midwife with 10 years' experience working in capacity building projects in LMIC. I have contributed to different capacity building approaches to improve maternal and child health in Sudan, Timor-Leste, Papua New Guinea, Laos and Cambodia. I have also been a midwifery educator working in the PNG MCHI which is the setting for the first phase of my study. It has been found that prior knowledge and experience about the research topic may influence the researcher (Bradbury-Jones 2007; Burns et al. 2012; Simmons 2007) and to address the risk of emic bias and subjectivity, I have reflected on my position in this research and how it influences the research processes and this will be described in the next section.

I experienced some benefits having been a previous insider and known to some of the Phase 1 participants. I had already built rapport with the participants and I was familiar with cultural norms and language in PNG. It has been reported that prolonged field exposure and feeling connected to the subject can be useful to enable open communication and build trust with the participants (Hanson 2013). Conversely, as a previous insider, there was a risk of role confusion, over-identifying with participants and subjective bias from my pre-existing experiences in the Phase 1 research setting and other capacity building initiatives (Burns et al. 2012). I did not feel as a previous insider that I had any negative experiences during data collection in PNG or subsequent analysis of the data.

During Phase 2 of the study, some of the participants responded from countries that I had worked in previously which enabled me to appreciate their perspectives. From the completed surveys, it was

clear that English was not a first language for some participants. Because I had experience working internationally, I was aware of cultural and grammatical nuances in written English which was helpful for me to understand the written responses.

In order to maintain reflexivity, I maintained an audit trail by keeping a fieldwork and research journal which enabled me to track the research decisions made throughout the research process (Bradbury-Jones 2007). When I was in PNG conducting data collection for Phase 1, I did not engage in teaching or facilitating clinical practice, even when I was invited to do so, so as not to blur the boundaries between my role as a researcher and a former educator. It was made explicit in the participant information sheet and repeated again verbally to the Phase 1 participants that I was in a new role as a researcher and not acting in my previous role as midwifery clinical facilitator. During interviews I remained silent or held a neutral position in discussions regarding the efficacy of the capacity building approach being studied. When reading the survey responses during Phase 2 of the study, I maintained the same objectivity, regardless of the country, funding agency and nature of the capacity building approach.

Throughout the study, I was mindful of my position of privilege as an Australian PhD student, and acknowledged the possibility of perceived power imbalance during the data collection, especially when interviewing the PNG national educators face-to-face during Phase 1. During transcription of the data and subsequent analyses I was aware that my views about my own or others performance as a midwifery educator may influence my inclusion or interpretation of data. This potential for 'filtering' information has been described as a necessary consideration to be taken by insider researchers to ensure the data is reliable (Hanson 2013). To assist in this process I read and re-read the transcripts, critically evaluated my inclusion of data, conducted three rounds of coding and consulted frequently with my supervisory team.

Ethical considerations

Approval for this research was granted through the University of Technology Sydney's Human Research Ethic Committee (UTS HREC REF NO. 2014000689). Specifically for Phase 1 of the research, ethics approval was also obtained from the Papua New Guinea Medical Research Advisory Committee (PNG MRAC REF NO. 14.18). Ethical approval documents are included in Appendix 5.

This research was guided by the principles of ethical conduct for research in human subjects (National Health and Medical Research Council 2007b). As a portion of this research was conducted overseas, there were special ethical considerations to be considered when working in a cross-cultural

environment. The National Health and Medical Research Council (NHMRC) (National Health and Medical Research Council 2007b) states that it is important to recognize the impact of the beliefs, customs and cultural heritage of participants when conducting research in another country. The guidelines from the NHMRC relating to conducting research in another country have been applied to this research project and continuing consultation with a PNG national midwife, Dr. Nina Joseph, Registrar of the PNG Nursing Council, helped to ensure the Phase 1 research tools and processes were culturally relevant.

Confidentiality, data management and storage

Confidentiality was ensured by not naming the participants on the interview transcriptions, survey data or any report produced from the research. A code generated by the voice recorder was allocated to each Phase 1 participant's interview transcript and Phase 2 survey data and the files containing the names of participants were kept separate from these numbers. In addition, all identifying data such as place of employment or previous experience were removed from the data in order to protect the identity of the participants. According to University of Technology Sydney's policy for data storage, printed data relating to this study were stored in a locked filing cabinet, separately from participant information (University of Technology Sydney 2012). Digital data were kept in a personal password protected computer and backed up on a personal external drive, accessible only by the researcher.

Consent and information sheets

Each participant was emailed an information sheet and a consent form prior to data collection. The information sheet outlined the purpose of the research, the data collection procedures and participants' rights during the research process. Participants were informed that their participation in the research was voluntary and they were able to withdraw from the research at any time without consequence. Opportunities were given to allow participants to ask questions about the research and contact details were provided for the supervisory team and the relevant ethics committee research officers. Signed consent forms were returned to me by email or given to me face-to-face before the Phase 1 interviews indicating that informed consent was obtained. A consent page was included in the Phase 2 survey which needed to be read and accepted before the participant could proceed through the survey. Samples of the consent and participant information sheets are included in Appendix 6.

Potential risks

There is always a level of risk involving human subjects in research and this risk can be classified on a scale from low to high (National Health and Medical Research Council 2007a). The risk to participants in this study was determined by the likelihood and severity of harm, discomfort or inconvenience experienced during their involvement (National Health and Medical Research Council 2007a, 2007b).

In Phase 1 of this study, individual face-to-face, telephone and Skype interviews were the methods of data collection used. In Phase 2, a web-based survey was used. The risk to participants using these methods was foreseen as being low. Some possible risks included possible fatigue and mild discomfort as a result of being interviewed however there was ongoing monitoring and evaluation during the PNG MCHI and participants were familiar with participating in research. Participants in Phase 2 volunteered to complete the survey and it was therefore assumed that the time taken to complete the survey was acceptable to them.

Feelings of fatigue may have been present whilst participants from Phase 1 were participating in the face-to-face interviews as they were conducted during a midwifery education workshop. For this reason the interview time was negotiated with the participant and kept to a maximum of 40 minutes. Refreshments were also provided. Participants may have felt self-conscious about being interviewed and audio recorded. The interviews were conducted in an informal, friendly manner and efforts were made to put the participant at ease and reduce feelings of self-consciousness. Participants were reassured that they were free to withdraw from the research at any time without reason or consequence. They were also informed that the interview could be paused at any time. There was a low risk that feelings of mild distress or anxiety were provoked when participants were talking about their role as a midwifery educator. The interview questions were purposely not confrontational and did not require the participant to recall or retell specific experiences. If participants experienced distress, they were given the opportunity for counselling or debrief by my primary research supervisor. No participant complained of feelings of distress or anxiety during or after the interview and no interviews were stopped prematurely.

There was a small community of midwifery educators participating in the PNG MCHI and Phase 1 participants were reassured prior to interview that what they discussed was strictly confidential. The participants were informed that a copy of individual interview transcripts could be made available to them to reassure them that they were not misrepresented. There was considered to be a low risk of cultural insensitivity as the study team were familiar with the context and culture in PNG and were

guided by UTS WHO Collaborating Centre (UTS WHO CC) which has a long standing relationship with several departments in the PNG National Department of Health, based on its work in the health sector in PNG and the Pacific region since 2008.

I did not find myself in any situation where I felt at risk during the Phase 1 fieldwork. As mentioned previously, I maintained a fieldwork journal to ensure reflexivity and keep a distinction between my role as a researcher and my previous role as a clinical midwifery facilitator in the PNG MCHI. I also had the opportunity to consult with the research team and members of the WHO CC UTS if issues arose that required support or debriefing. On occasion I experienced feelings of sympathy for the participants when they expressed frustration about the slow pace of development in PNG. I did not want to express excessive or inappropriate empathy with them and risk biasing the data so I discussed this with my academic supervisor who was also in-country and she suggested engaging in active listening skills to ensure that I did not appear to 'take sides' during the interview. Using well placed non-lexical conversation sounds such as 'uh ha' and 'hmm mmm' would encourage the participants to continue talking without conveying my thoughts on the topic. I was aware of the personal security requirements in PNG and took all necessary precautions when moving between my accommodation and the interview sites.

Summary

This chapter has justified the use of a sequential exploratory mixed method design to explore the approaches used to build midwifery educator capacity in LMIC. The selection of this design allowed for flexibility to explore the experiences of midwifery educators from different countries working in diverse settings to strengthen midwifery teaching and learning. The enabling and constraining contextual factors were also explored which contributed to the depth of understanding of the research topic. This chapter also included an introduction to the theoretical framework underpinning this study, the researcher's position in the study and ethical considerations. The next two chapters present the methods and findings specific to each phase of the study.

CHAPTER 4: PHASE 1 METHOD AND FINDINGS

Introduction

This chapter explains the methods and findings from Phase 1 of the sequential exploratory mixed method study. This phase uses exploratory qualitative interviews to determine how the Papua New Guinea Maternal and Child Health Initiative enabled the international and national midwifery educators to work collaboratively in a cross-cultural partnership to strengthen midwifery teaching and learning in PNG. An explanation of why the PNG MCHI was used as a case study will also be provided to set the context for this chapter.

Aims and objectives

As already mentioned in Chapter 1: Introduction, the aim of Phase 1 was to:

- Determine whether one approach – the Papua New Guinea Maternal and Child Health Initiative – contributed to capacity building that was designed to improve midwifery teaching and learning.

The objectives of Phase 1 were to specifically explore the approach used in the case study - the Papua New Guinea Maternal and Child Health Initiative by:

- Examining the factors that enabled or constrained the ability of both national and international midwifery educators to implement improved midwifery teaching and learning;
- Exploring how national midwifery educator's attitudes, subjective social norms and perceived behaviour control are linked to intention and improved teaching behaviour;
- Considering the issues related to working in a cross-cultural environment for both national and international midwifery educators; and,
- Developing an online survey based on the findings and informed by the Theory of Planned Behaviour (TPB) to study the issues relating to capacity building programs in midwifery education in other LMIC.

The case study: The Papua New Guinea Maternal and Child Health Initiative

Papua New Guinea is an island in the South Pacific, is considered a low-income country (World Bank 2014) and has approximately 250, 000 births a year (World Health Organization 2015b). The majority of the population reside in difficult to reach rural areas which contributes to the low rate of skilled attendance at birth of 44% and high maternal mortality ratio (MMR) estimated to be around 773

maternal deaths per 100, 000 live births (Papua New Guinea National Government 2009; World Bank 2011; World Health Organization 2015b). The PNG government directed efforts towards increasing the number and quality of midwives in the country to address these statistics and the estimated midwifery workforce shortage (UNFPA WHO ICM 2014). A key component in the strategy to increase the number and quality of midwives was to support midwifery education.

The Australian Government provided funding to the World Health Organization (WHO) in Papua New Guinea in 2012 to be used for improving maternal health care. The University of Technology Sydney's World Health Organization Collaborating Centre (WHO CC UTS) was sub-contracted by WHO from 2012 to 2013 to supply technical assistance and a multi-stakeholder capacity building program called the PNG Maternal and Child Health Initiative was created and was undertaken until the end of 2015.

The WHO CC UTS supported the Maternal and Child Health Initiative (MCHI) over the four years in a number of ways. These included: the recruitment of international midwives and obstetricians, facilitating national education workshops which were conducted three times a year, supporting the midwifery regulatory body to improve systems and processes, conducting the monitoring and evaluation of the initiative, and providing ongoing support to the international and national educators involved in the Initiative through regular teleconferences and face-to-face mentoring and clinical supervision. International educators (known as Clinical Midwifery Facilitators or Clinical Midwifery Educators) and the two obstetricians were provided with a comprehensive orientation program before arriving in PNG. The program involved cultural awareness training, a background on the state of maternal and child health in PNG and an opportunity to build relationships with other international educators and the coordinating team at UTS.

At the time this study was conducted (early 2015), the specific objectives of the MCHI were to improve:

- The standard of midwifery clinical teaching and practice in the four teaching sites (to become five in mid-2015); and
- The quality of obstetrical care in two regions through the provision of clinical mentoring, supervision and teaching

Setting

During Phase I of the MCHI (2012-2013), eight internationally educated midwifery clinical facilitators were placed into the four midwifery education institutions to work alongside national counterparts.

This number increased to 10 international educators in five education institutions in Phase II of the Initiative (2014-2015). The MCHI used a range of strategies to build capacity which included mentoring of midwives, midwifery education workshops held three times a year and provision of teaching materials (UTS World Health Organisation Collaborating Centre for Nursing Midwifery & Health Development 2014). The international midwifery clinical facilitators (CMF) worked as midwifery educators in partnership with PNG midwifery educators and clinicians in the education institutions and clinical practicum sites. The international midwifery educators provided pedagogical and clinical updates, mentoring and support to the national educators. The national educators provided valuable local experience, skills, cultural insights and context specific knowledge to the international educators. The midwifery education workshops enabled international and national educators from all four education institutions and clinicians from the main clinical practicum sites to participate in simulated teaching and learning in a collaborative and collegial group environment. Teaching resources were also provided and included textbooks, WHO midwifery education modules, audiovisual resources and clinical simulation equipment and mannequins. International educators were supported by a midwifery mentor who was experienced in working in PNG. This support involved a facilitated weekly to fortnightly teleconference connecting all education institutions. This provided the international educators with the opportunity to debrief and discuss relevant technical aspects of the Initiative and support each other nationally.

The MCHI aimed to establish long term relationships between international midwifery educators, the midwifery faculty at UTS and the Ministry of Health and midwifery educators and education institutions in PNG. This approach provided Papua New Guinean midwifery educators with professional development opportunities, positive role-models and opportunities to build confidence to use contemporary methods of teaching and facilitating learning (Dawson et al. 2016). An evaluation of the MCHI has reported improved clinical education experience for students, improved quality of the midwifery curricula, increased learning opportunities for midwifery educators as well as progress towards improving registration of midwives (Dawson et al. 2016; Moores et al. 2015; Moores et al. 2016). While these results are encouraging, the evaluation did not shed light on the specific individual, partnership or environmental factors that enabled the PNG midwifery educators to improve their teaching and learning.

The PNG MCHI was chosen as the case study as it has capacity building as its primary aim which included partnering international and national midwifery educators in education institutions. There were also established links between UTS and the PNG National Department of Health which enabled

me to have prior knowledge of the context, a previous relationship with the education institutions and ministry of health in PNG and subsequent access to the participant sample.

Method

As described in the previous chapter, this phase of the study used an exploratory qualitative design and individual semi-structured interviews to report the perspective of both the national and international midwifery educators. Case study research has been described as a research method that allows an in-depth understanding of phenomena in a real-life context when the boundaries between phenomenon and context are not always clear (Yin 2012). The flexibility in a case-study design is that qualitative or quantitative evidence can be used and various methods of data collection are acceptable (Yin 2009).

A case study focusing on one country program was chosen for two reasons. Firstly, in order to answer the research questions, focusing on one country enabled specific details relevant to the context to be explored in-depth without the need to account for how differences in context and process may affect the participant's responses (Baxter & Jack 2008; Creswell 2013; Harder 2010).

Secondly, determining whether the national midwifery educator capacity has been strengthened can be subjective and is determined by individual perspectives. Qualitative enquiry within a case study enabled exploration of the perspectives of more than one group of participants in order to get a balanced view from both sides of the partnership (Yin 2009). It was planned that the findings of this phase would then be used to help develop the survey questionnaire in the subsequent second phase of the study.

Case study research has been described as both a methodology and a method (Crotty 1998; Harder 2010; Yin 2012) and the confusion for a novice researcher lies in using appropriate language to describe the research project accurately. The description of the initiative and the outline of the methods used will help the reader to determine if the research process can be considered of good quality. Clear explanations of these components can enhance the trustworthiness of the research (Harder 2010; Yin 2009).

Case study methodology allows in-depth analysis of a phenomenon from different perspectives and is not limited to individuals or groups but is also suitable to explore processes or events (Baxter & Jack 2008; Harder 2010). Case studies have been used extensively in social sciences, education and health (Yin 2009) and this method has contributed to knowledge of individual, social and organisational

phenomena. For example, Australian flight nurse competence in midwifery practice (Brideson, Glover & Button 2012) has been investigated using a qualitative single-embedded-unit case study approach, where 'units' comprised of flight nurses who were employed at different centers throughout Australia. Other research (Fraser, Avis & Mallik 2013) used a case study design conducted in phases with midwifery educators in the UK representing the embedded units. Multiple data collection methods were used to evaluate the outcomes of pre-registration midwifery education in various institutions. The findings indicated that there was better outcomes if midwifery students learnt together in smaller interactive groups and it was deemed important that midwifery educators have current clinical knowledge and skills and are able to facilitate clinical simulation and practice of their students (Fraser et al).

Participant selection

The sample for phase 1 was chosen purposively using 'criterion sampling' (Palinkas et al. 2015; Palys 2008). This method of sampling was appropriate as only participants who fit the criteria of being a midwifery educator working in the PNG MCHI were of interest (Palinkas et al. 2015).

The participants were identified from a UTS database which contained the names of all educators who had ever worked in the PNG MCHI. There had been a total of 18 PNG national and 15 international educators working in the PNG MCHI from the beginning of the initiative in August 2012, up until the data collection period in March 2015. Participants were invited via email to contribute to the research. Thirteen national and thirteen international educators consented to participate and were included in the study. One previously employed international educator and two previously employed national educators were not contactable. As a previous international educator working in the MCHI, I excluded myself from the sample. It was anticipated that the international and national educators would have their own unique perspectives on their involvement in the PNG MCHI and it was therefore important to have close to equal numbers of both groups of participants to gain a balanced view.

As qualitative research is primarily concerned with finding the meaning participants attribute to the phenomena of investigation there is usually a smaller sample size when compared to quantitative research (Mason 2010). The concept of data saturation is often used to guide sample size however there is little consensus regarding the ideal sample size in qualitative research (Marshall et al. 2013; Mason 2010; National Centre for Research Methods 2012; Palinkas et al. 2015). The final two

interviews from each group revealed no new information but the interviews were still conducted and included in the analysis to confirm data saturation was achieved.

Participant recruitment

Participants were first contacted by email by my primary supervisor and asked if they were interested in participating in the research. If they responded in the affirmative, my supervisor copied me on that email, thanking the participant and informing them that I would be in contact with them. I then individually emailed each participant and provided them with an information sheet and a consent form. The date and time of data collection was negotiated with the participant and depended on their place of residence.

Non participation

Two Australian midwifery educators who initially stated they were willing to participate were not available during the data collection period so consequently were not interviewed. One PNG midwifery educator was evasive during the workshop, stating initially that she was willing to participate and then making excuses on two subsequent scheduled times for interview as to why she could not participate. This was perceived as a passive decline to participate and this individual was not included in the sample.

Data collection

Data collection occurred in March 2015. The majority of participants were interviewed face-to-face during a two and a half day midwifery education workshop at a conference venue not far from the capital city of Port Moresby in Papua New Guinea. I arrived five days prior to the workshop and stayed an additional two days after to enable data collection from Port Moresby-based participants and I concentrated on those participants who lived outside of the capital city during the workshop. This occasion was chosen as midwifery educators from the five training institutions around PNG were gathered in the one location. It is expensive to travel within PNG and often security concerns do not permit freedom of movement therefore having all participants in the same location enabled a larger sample to be accessed.

Twenty-six individual semi-structured interviews were conducted in March, 2015. In total, 13 interviews with the PNG national midwifery educators were conducted and 13 with the international expatriate midwifery educators.

The midwifery educators who consented to participate and were geographically located outside Port Moresby at the time of the workshop were contacted by telephone when I was in PNG. The Australian-based midwifery educators were contacted using Skype from my home in Thailand at a time and setting that was convenient for them. During the midwifery education workshop I conducted all the face-to-face interviews alone in a private room, separate to the main workshop conference room. I conducted additional face-to-face, Skype or telephone interviews in a private space in either a hotel room or the participant's workplace. The methods of Phase 1 data collection are displayed in Table 2.

Table 2: Methods of Phase 1 data collection

Interviews	Face to face interview in PNG	Telephone interview from within PNG	Skype interview to Australia	Total
International	9	1	3	13
National	10	2	1	13
Total	19	3	4	26

Questions for the individual in-depth semi-structured participant interviews were developed in consultation with my supervisors. It was important to ensure that the questions would answer the research question, address the objectives of the research, and not duplicate existing monitoring and evaluation so as not to cause participant fatigue.

Before conducting interviews I asked my supervisor and a research colleague from UTS, who both had extensive experience working in Papua New Guinea, to read the questions and provide feedback to ensure that the wording was culturally appropriate. Some changes were made at that point to simplify the language and to start the interview with less direct questions to put the participant at ease. Questions were also re-numbered to ensure that they followed a logical sequence. The data collection tools (interview questions and interview guide) were then reviewed by a Papua New Guinean midwife with experience in conducting research in PNG and no recommendations were given to change the tools before data collection.

A sample of the interview questions were provided to the participants in the participant information sheet, prior to data collection. An interview guide with no more than 10 broad questions was used

and the questions were worded slightly differently for the international and national midwifery educators. The Phase 1 interview guide is included in Appendix 7.

In addition to collecting demographic details, the interview guide for the international midwifery educators contained the following questions:

1. Tell me about when and how you came to be a midwife.
2. Tell me about when and how you came to be a midwifery educator.
3. What qualities/skills are important to you in your work as a midwifery educator and why?
4. What further study, training or experience would help you in your role as midwifery educator? What opportunities are available to you?
5. How do you perceive teaching and learning in PNG to be different or similar to your home country?
6. Working in a cross-cultural environment is one approach to capacity development. What have you taught your PNG counterpart, what have you learnt from them?
7. What motivates you to come and work in PNG?
8. What advice would you give a new Clinical Midwifery Facilitator (CMF) to prepare them for working with a PNG midwifery educator?

The interview guide for the PNG national midwifery educators contained the following questions:

1. Tell me about when and how you came to be a midwife.
2. Tell me about when and how you came to be a midwifery educator.
3. What qualities/skills are important to you in your work as a midwifery educator and why?
4. What further study, training or experience would help you in your role as midwifery educator? What opportunities are available to you?
5. Working in a cross-cultural environment with international consultants is one way for both parties to learn new things. What have you taught the international consultant working with you? What have you learnt from them?
6. What are the pros and cons of working with an international midwifery educator?
7. What advice would you give a new midwifery educator to prepare them for working with an international consultant?

During the first two interviews with PNG midwifery educators it was apparent that some wording was not understood. The participants either did not address the question that was asked or stated 'I don't

get it, can you say again?' or asked me to 'rephrase that question'. In subsequent interviews, the questions were re-phrased and there was no further indication from the PNG participants that the questions were misunderstood.

After the next two interviews, I consulted with my supervisor as I did not feel I was getting enough information to answer my research question. Additional questions for both international and national educators were then added:

1. What is the best part of your job?
2. What is the most challenging aspect of your job?
3. If you were able to change things, what is your vision/idea for improving midwifery education?

Semi-structured in-depth interviews allow the researcher to thoroughly explore each participant's views with the flexibility to add new questions as data collection progresses and previously unanticipated topics are explored by the participants (Sturges & Hanrahan 2004). This was a useful method of data collection as the participants would sometimes stray from the topic and provide new and relevant information which added depth to the data. One participant was interviewed twice as new questions evolved that were not asked in the first interview. Interviews lasted between 20-45 minutes.

All interviews were digitally recorded on my mobile phone and downloaded onto my computer. I used a fieldwork journal to take notes during the interviews on the body language, tone or mood of the participant and make personal written reflections on repeated themes or topics that emerged. I transcribed all the interviews verbatim as soon as possible after the interview and had completed this within 4 weeks of completing the interviews. Early transcription of interviews is recommended as the researcher's memory of the interview helps in accurate transcription and reflective note taking (Vaismoradi, Turunen & Bondas 2013). Transcribing the interviews myself enabled me to become familiar with the whole data set which is a priority step in conducting thematic analysis (Ryan & Bernard 2003; Vaismoradi, Turunen & Bondas 2013). On four occasions, I contacted participants by email to clarify the content of the transcript which was not clearly audible or to ask for missing demographic information.

Data analysis

Data were analysed using thematic analysis following a six step process (Braun & Clarke 2006).

1. Familiarizing yourself with the data

2. Generating initial codes

3. Searching for themes

4. Reviewing the themes

5. Defining and naming the themes

6. Producing a report

Familiarizing myself with the data

Familiarizing myself with the data started with transcribing the 26 interviews verbatim to enable the data to be read and re-read (Ryan & Bernard 2003). Transcription was performed manually, concurrently listening to the audio recording through headphones and typing the words directly into the computer if it was available or writing in a notebook and typing later. Transcribing the interviews myself was very time intensive, taking approximately three times as long to transcribe the interview as the length of the recording. As a novice researcher however, it has been recommended that transcribing qualitative interviews is an important step which helps the researcher become familiar with the data and aids analysis and critical reflection (Kohlbacher 2006; Lucas et al. 2007). Repeatedly reading the transcriptions and listening to the audio recording of the interviews at least four times each through headphones whilst out walking or in the gym was extremely useful as it enabled me to become close to the data and I could begin identifying thematic categories of recurring expressions, words and concepts (Ryan & Bernard 2003).

Generating initial codes

During thematic analysis, a combination of a priori (deductive) and inductive methods of coding were employed to identify repetitions, similarities, differences, exceptions and causal relations in the data (Mills, Durepos & Wiebe 2010; Ryan & Bernard 2003). A deductive approach informed by the TPB was used to guide the first round of coding which sought to identify patterns in the transcripts that reflected the educator's attitude, normative beliefs and factors perceived to influence control over their ability to improve midwifery practice. The transcripts were combined in one data set and were read line by line. Words or phrases which were aligned with the theoretical framework were highlighted with coloured pens on printed hard copies. The TPB states that understanding the influence of these three variables can help to predict and support behaviour change and for this reason it was deemed relevant to use this theoretical framework in the data analysis (Cote et al. 2011; Godin et al. 2008; Michie et al. 2008).

Searching for themes

Additional codes were then inductively applied to data which did not initially appear to fall into the TPB categories during second and third round coding. This inductive process of identifying themes in the data has been described as open coding (Ryan & Bernard 2003) and is a common method of analyzing qualitative data (Mills, Durepos & Wiebe 2010).

Second-round coding was performed by using the *Styles* function in *Microsoft Word* to allocate *Headings 1-5* and *Subtitles* to themes and sub-themes within the electronic document. The second round of coding explored the data in more detail and the transcripts were re-read to ensure that the participant's views were truthfully represented. It was at this stage that distinct themes became more apparent, each with relevant sub-themes.

Second-round coding of the combined dataset generated up to 30 pages of themes and sub-themes which were displayed separate to the body of the transcribed text using the *Table-Of-Contents* function, made possible by the previous step of highlighting the themes using *Styles.*

Reviewing the themes

This volume of data generated from the second round of coding was unmanageable so data was coded a third time. During second-round coding I had re-evaluated the themes that I had allocated in the first instance and referred continuously back to the transcripts to find repetitions, similarities, differences, exceptions and causal relations indicated by the use of the words 'if, because, and then'. The data were then re-coded without thinking about how to fit it into the theoretical framework but how it will answer my overarching research question. Third-round coding involved separating the international and national educator data sets into separate electronic files. The codes generated in the *Table-of-Contents* from using the *Styles* function from each of the 13 international and 13 national educator data sets were copied and pasted into separate documents which allowed them to be analysed individually.

Defining and naming the themes

I found that all the data did not fit neatly into a priori themes because some questions that were asked during data collection elicited broad responses that were not directly related to the theoretical framework. This caused me some confusion and frustration in first-round coding because I felt I had to try and fit and organize data into a predetermined framework. My supervisory team encouraged me to continue refining the coding process by discovering themes inductively, letting the data speak for itself and not forcing it into categories.

The international and national educator data sets were analysed separately as it was anticipated that unique and distinct themes would appear between the data sets. This assumption was confirmed in the initial coding, but as analysis continued, it became apparent that the participants had similar views from complementary perspectives. The themes in both data sets were able to be grouped, collapsed and refined and integrated into seven themes and concepts which met the aims and objectives of Phase 1 of this research. The themes are:

- Knowing your own capabilities;
- Being able to build relationships;
- Being motivated to improve the health status of women and newborns;
- Having a mutual understanding of the capacity building project;
- Preparing stakeholders for working together in a capacity building project;
- Knowing how to adapt to a different culture; and
- Having an enabling environment which support improved midwifery education.

Producing a report

The next section will explore in more depth the themes and sub-themes which were identified in the data. The themes were named using gerunds to describe the general conceptual action which emerged from the data which is one way of describing the processes of human action (Saldana 2009).

Findings

Thirteen national and 13 international educators participated in interviews and all the data generated are included in the analysis. This section will begin with the participant description and follow with a description of the other findings which have been thematically analysed.

Participant description

Demographics

The average age range of the participants was between 47 and 57 years old. There was one male and 26 female participants. This distribution accurately reflects the gender distribution of midwifery educators working in PNG (Papua New Guinea National Government 2009). International educators were from Australia, New Zealand and Malawi. All national educators were from either coastal, island or highland regions of Papua New Guinea reflecting cultural diversity within the sample.

All participants were currently working or had worked within the previous two years in the PNG MCHI. Participants had an average of 26.7 years of nursing and midwifery experience (international: 31.3 years and national: 12.8 years). Participants had an average of 14.9 years (international: 18.8 and national: 11 years) of experience working in midwifery education. The national educators were from all four education institutions located in both urban and more remote regions of PNG. Education institutions were governed and administered either by the PNG government or private religious-affiliated organisations.

Education

All national educators completed their midwifery education in PNG and the language of instruction was a mixture of English, local dialects and Tok Pisin which is a form of Melanesian Pidgin English. International educators all completed their midwifery education in well-resourced high income countries (Australia, New Zealand and Scotland) and the language of instruction was English. Five international and three national educators had completed a Master's level degree, the remainder of participants had completed postgraduate study.

Findings

Seven main themes emerged from the data and provided insight into how the PNG MCHI enabled the national educators to have improved methods of teaching and facilitating learning. The first three themes described the enabling individual attributes, collaborative skills and processes which were used and perceived positively by the educators. The themes are displayed in Figure 1.

These themes were:

- Knowing your own capabilities
- Being able to build relationships
- Being motivated to improve the health status of women

The next four themes explore aspects related to individual, collaborative and contextual influences which were perceived to create challenges or constrain the individual's ability to have improved midwifery teaching. They were:

- Having a mutual understanding of capacity building
- Preparing stakeholders for working together

- Knowing how to adapt to a different culture

- Needing a supportive environment

Figure 1: Visual map of Phase 1 themes

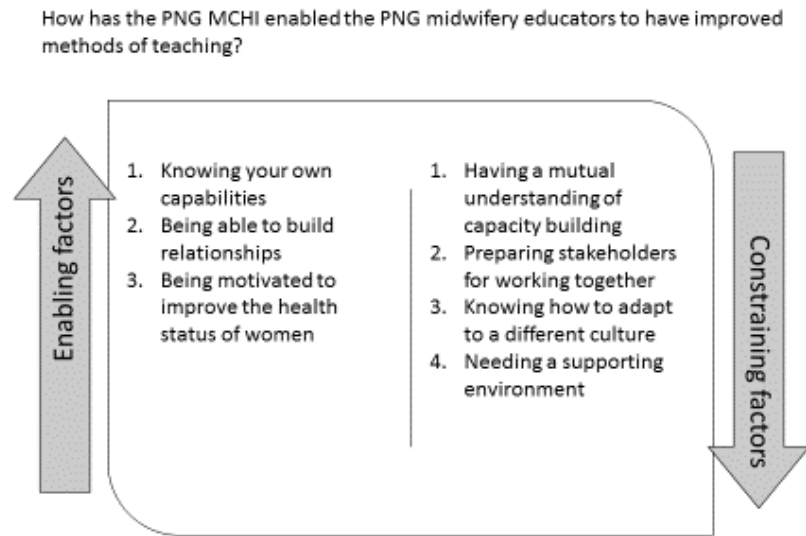How has the PNG MCHI enabled the PNG midwifery educators to have improved methods of teaching?

Enabling factors

1. Knowing your own capabilities
2. Being able to build relationships
3. Being motivated to improve the health status of women

1. Having a mutual understanding of capacity building
2. Preparing stakeholders for working together
3. Knowing how to adapt to a different culture
4. Needing a supporting environment

Constraining factors

Enabling Factors

Knowing your own capabilities

The first main theme explored the benefits of midwifery educators knowing their own professional capabilities. Participants spoke of how an awareness of their knowledge, skills and attitude toward midwifery teaching and practice helped them in their role as educators. Knowing their capabilities encouraged educators to engage in learning opportunities and share knowledge and skills with their colleagues. For example, a national educator said:

> *I've been asking if PNG midwifery educators could have an attachment program in the hospital so we could enhance the skills that we have. Like evidence based practice and the new technologies and all that, as educators we should have the skills on that. (National educator)*

Some national and most international educators perceived that they had adequate clinical skills for the role of midwifery educator. Others would have felt more confident with extra clinical experience as their role in the PNG MCHI involved clinical teaching in environments with limited clinical support

and resources. Most national and international educators stated they would have felt more prepared with a formal adult teaching qualification in order to facilitate learning more effectively.

Being able to build relationships

Participants expressed that it took time to get to know their colleagues and felt the time taken to build relationships was important to develop trust and respect and enabled improved information exchange. The PNG MCHI was a four year project and this was acknowledged as allowing meaningful long term relationships to be developed with colleagues in the education institutions and clinical practice sites. This was expressed by a national educator when talking about her relationship with the international educators when she said:

> *…once you forge that relationship with them, there is no barrier anymore, you are open. For example, my colleague, once upon a time she would come and see me first before going to see the international educator. But now she just walks straight, because of that relationship she has developed with them. (National educator)*

Working together to prepare lesson plans, co-teach or facilitate clinical practice in the practicum sites provided an increased opportunity for collaboration which was valued by both groups of educators. Working side-by-side with national educators gave international educators support to ensure that they were behaving in a culturally appropriate manner.

An international educator expressed her gratitude at working beside a national educator:

> *… she has given me a lot of knowledge about PNG and the way things work here. (International educator)*

National educators expressed that working side-by-side with international colleagues gave them confidence to implement new methods of teaching in the education institution or the clinical practicum site. A national educator expressed her feelings about the relationship in this way:

> *…we kind of get together, along the line if I have any questions… what do you think about this or how can we do it? I like that. It is working together with the international educators. (National educator)*

During the MCHI, three midwifery education workshops were held each year to update educator's knowledge and skills in midwifery and pedagogy. During these national workshops, educators could

get to know each other and communicate face-to-face. This enabled a personal connection to be made and national educators expressed they were more likely to collaborate with each other after meeting in this way. An international educator expressed how relationship building during the workshops enabled improved teaching:

> *I think the workshops are very good, the national educators together with us and we are all doing the same thing, and bringing the clinicians (to the workshops) as well. It helps build relationships in the hospital which allows better teaching in the hospital. (International educator)*

Being motivated to improve the health status of women

Participants identified that a motivating factor to strengthen midwifery teaching was to improve maternal and newborn survival. This concept was prevalent throughout the data and many educators spoke about being personally involved in maternal deaths and motivated to improve their own midwifery practice and teaching skills in order to prevent women from dying. A national educator expressed that a personal experience with maternal death was a motivating factor for improving midwifery teaching:

> *… the experience of maternal death back then was my motivation to use my knowledge to help mothers in PNG ever since. It was a very emotional time for me. (National educator)*

International educators identified that the disparity in maternal health outcomes between their home countries and PNG was a strong motivation to work alongside their national colleagues and share their knowledge and skills. An international educator expressed her motivation to help others:

> *In PNG, women have one of the worst maternal mortality rates in the world…if I can in anyway make that better then I want to be part of that. (International educator)*

Both groups of educators were mindful of the need to increase the quantity and quality of the midwifery workforce in order to decrease the high MMR in PNG. National participants stated that as an educator they had influence over a larger number of midwifery workforce when compared to previous roles working in clinical or administrative roles. With improved midwifery teaching, participants felt they could increase the quality of midwifery education which would then translate to improved midwifery practice and improved maternal health outcomes. A national educator expressed it like this:

If I'm the Director of Nursing Services at this hospital, then I'm not passing the knowledge and skills that I have to many people so that they will go out there and help reduce the high MMR and treat people well…So I get back to teaching so when I teach, I teach 20 students, 30, 40, 50…I share my experience so I can help people instead of just working at this little hospital. (National educator)

Constraining Factors

Having a mutual understanding of capacity building

Capacity building was interpreted differently by the participants. Some national educators perceived the international educators as replacement staff who were there to share the work in the education institution and clinical practicum site. This perception of the international educator's role limited the collaborative opportunities inherent in a capacity building model. Not all the national educators understood that the role of the international educators was supportive and collaborative. This was expressed clearly by a national educator:

We need a written expectation within this phase of capacity building…this would be helpful because I think some national people may just be thinking that these international people are just additional hands to help us. (National educator)

Some national educators felt that their national colleagues sometimes took advantage of the extra pair of hands to attend to personal responsibilities. This was expressed by a national educator:

I have teachers, "ok, I'm going to supervise" and our hospital is far from the school and then I go into the hospital and they are not there or they have gone off somewhere. (National educator)

International educators also felt some frustration that they didn't always have a national colleague to work beside.

We are limited about who we can capacity build, the one national educator is pretty good. But there is a lack of staff to actually build up. (International educator)

Other international educators acknowledged the challenges for her national educator colleague:

Their challenges are so enormous, you can sort of understand. Why would they bother coming to work? They don't get paid properly, their housing is totally inadequate, and they're promised things that never happen. (International educator)

The educators felt that the term capacity building was interpreted differently by the administrative hierarchy of the education institution, the clinicians in the practicum sites and the maternal and child health staff at the PNG National Department of Health. It was felt that the inconsistent approach towards the role of the international educators inhibited the capacity of the colleagues to work together to improve teaching.

I have had some of my colleagues from the National Department of Health say 'these white meris (white women) come up to our office and I was wondering what this was for?' There was no communication and preparation to say 'this is what capacity building is' and what should we do? (National educator)

It was perceived that as experienced clinicians and educators the participants should 'know' how to work together. Both international and national educators expressed that they learnt how to work together as the initiative progressed and it would have been helpful to have clear guidelines at the beginning of the initiative to guide the capacity building process. This finding indicated that even if educators had a job description to guide their independent work, they required some additional tools to prepare them for working together.

It was unclear to some participants if what they were 'doing' was 'working' which implies a need for more formal evaluation processes to quantify educator's individual performance and monitor outcomes. This was expressed by national educators as articulated here:

Someone has to appraise us whether we have gained knowledge or enhanced our knowledge in the workshop we came and when we went back, have we improved? That has to somehow be assessed so that we know where we are going, whether we have improved or whether we are still the same. (National educator)

International educators also expressed some uncertainty regarding whether they were being effective and meeting objectives to strengthen midwifery teaching, for example:

What I've taught them I don't know. It's them who can say…I don't know whether they take it or haven't taken it. It is up to them now to say whether I've been effective or whether I've been useless. (International educator)

Preparing stakeholders for working together

Participants discussed that their preparation for working together, the way in which learning occurred, their understanding of each other's role, national educator's willingness to work in an education role and receptiveness to change constrained the improvement of midwifery teaching.

Participants valued having knowledge and skills in adult education up-to-date clinical skills. Both groups of midwifery educators expressed that they did not feel able to completely fulfil their role without these skills. This finding may reflect the lack of opportunity for higher education for national midwifery educators in PNG or the requirement for international educators to have an advanced skill set to work in an education role in a LMIC. A national educator expressed this clearly:

I see the PNG educators as really good clinicians and most of the educators have not been to formal training in teaching before. So how do we impart it to the students, the knowledge and skills? (National educator)

Some national educators acknowledged that rote learning was not effective to produce a quality midwifery graduate and were willing to learn other methods of facilitating learning:

I always thought that teaching was just reading and then presenting, presenting but now I'm learning that role plays and card plays and all that…I've learnt a lot from my international colleagues. (National educator)

Other national educators found it challenging to adapt to a less didactic way of teaching and expressed it like this:

I follow one step and when I do that every time, it is like I memorize it. But if I tend to do other steps from what I have been doing, I cannot get it straight. It is all over my mind. I have to do the one sequence over and over again. (National educator)

Some national educators expressed that they were not consulted regarding whether they wanted to work in a partnership model with international midwifery educators and this affected their willingness to collaborate. Some national educators did not feel confident that they had the requisite

midwifery knowledge or attitude to work with the international educators. International educators shared these views and also expressed feelings that their national colleagues could have been better prepared for working together. A national educator stated:

> *The challenge I see in partnering is different types of people and you try and make them work together. It is really difficult at times. There are some, you partner them and there is no problem. There are some and you partner them and lots and lots of problems. (National educator)*

A national educator reflected that she felt a lack of confidence when it was apparent that her knowledge and skills were outdated:

> *It can be very challenging for me too. Like I said maybe I wasn't up to date with all the knowledge and practices and all this and like to me if I did something that was outdated in practice and all this it is quite challenging. I had to be pointed out by the international educator, this thing is out of practice and all this. It demotivates me. (National educator)*

Some national midwifery educators felt that their recruitment into education roles was not always under their own control. Individuals were often nominated or coerced into working in midwifery education despite feeling as if they did not have enough clinical or teaching experience. This indicates a lack of career pathways, choice and autonomy for midwives in PNG and affected their enthusiasm and preparedness for the role. A national educator stated:

> *I was kind of forced to take up teaching in the diploma program. I didn't practice that much. There was a position vacant and there was no one, they just kind of asked me frequently and then I said "OK, I'll try and get on board." (National educator)*

Some of the participants had pre-conceived notions of what their role as a midwifery educator should 'look like'. For some of the national educators, their professional identity had been developed through years of being educated in a rote-learning education system and their own clinical practice and teaching experience. In the international educator group, there were individuals with various levels of experience in management, clinical practice, teaching, and international development work in other LMIC. Individual national educator's subjective expectations of international educator roles and responsibilities created some confusion between national and international educators and constrained the way in which they worked together. A national educator expressed her frustration:

Some international educators that came didn't have the skills and knowledge to be able to build capacity. So for me, I expected more from every international educator because you are coming here to build capacity and that is what you should do…it was very frustrating that I have to go step by step. (National educator)

International educators expressed that they felt they lost time ensuring their national colleagues had the perceived pre-requisite knowledge and skills. One international educator expressed this when talking about her national colleague:

I don't know when she completed her midwifery training, 40 or 30 years ago or something like that but I don't think she has worked clinically for a very long time. Her theoretical knowledge is almost non-existent, she is very unconfident clinically. When you are working alongside someone who is in the program, the sheer deficit of knowledge…is almost insurmountable. (International educator)

The national midwifery educator and clinician's attitude towards changing practice constrained the improvement of midwifery teaching. The resistance to change was clearly expressed by a national educator:

Some of these things (evidence based midwifery practice) I don't want. Like me, I am resisting not to do that. Because I have been doing this thing for a long time and why should I change? (National educator)

It was felt that the clinicians who supported student learning and worked together with the midwifery educators were not prepared for working together. An international educator expressed it in this way:

We're teaching the students one thing and then they are going to the clinical area and being taught something else or they are going to the clinical area and not being supported by the staff, they don't see it as their role to teach students, they see it as our role as educators. (International educator)

The theory-practice gap caused tension between both groups of educators and clinicians and some educators found it difficult to sustain improved midwifery teaching in the clinical practicum sites:

The unit managers (in the clinical practicum sites) are saying this and we are doing that and we are not fully implementing what we have been taught and I think all of that comes back to continuing education, regulation and registration. (National educator)

Knowing how to adapt to a different culture

Different cultural norms affecting communication between individuals and groups were identified. The participants acknowledged that finding a culturally appropriate way of giving and receiving feedback was sometimes challenging. The national educators perceived that the international educators were sometimes not able to provide feedback in a culturally sensitive way and were occasionally too outspoken. Although speaking frankly was culturally appropriate in the international educator's home country, this behaviour was considered inappropriate as it was contrary to the indirect communication style typical in PNG culture (Saffu 2003). The national educators experienced challenges giving feedback to clinicians to correct outdated clinical practice and to other members of the faculty or students to encourage professional conduct. Culturally, it was seen as important to 'keep the peace' and this social norm constrained the national educator's ability to provide constructive feedback and improve midwifery teaching and clinical facilitation of students. A national educator expressed that she did not feel empowered to address these issues with the staff at the clinical practicum sites:

I don't have the courage to go and face them. Face the health worker and say "no this not how you do it, things have changed". I don't have the courage. Most of them have very strong personalities. (National educator)

The national educators felt that they needed improved skills in spoken and written English language in order to be effective in their role. This may reflect the lack of availability of translated teaching materials or that only a small number of the international educators spoke the local language of Tok Pisin. A national educator expressed that she felt her teaching capacity was constrained due to the lack of English fluency:

I think a big issue is English. If we are good in English we could guide the students effectively so they could be academic as well as clinicians. (National educator)

The participants described that the concept of hierarchy was influential. For example, there were perceived status and power differentials between midwifery educators and hospital based clinicians and between national and international educators. The perceived distance between colleagues who

held different positions in the profession and in society was identified as a barrier for communication and constrained the implementation of improved methods of teaching. A national educator perceived that she was not independently able to change practice in the hospital and expressed her regard for the hospital hierarchy in the following way:

> *We also want a senior adviser from the hospital and they can have their meeting together before they come down to us. (National educator)*

National educators who had lived or worked in middle or high income countries perceived that having that experience helped them relate to their international colleagues culture better. International educators used their knowledge of the Pacific Island context and of previous experience working in a cross-cultural environment to inform their approach to working in the PNG MCHI. They perceived that it was important to be aware of and sensitive to each other's cultural differences.

Needing a supporting environment

National educators felt that there were not enough national midwifery educators employed in their faculty and this made it challenging to improve capacity in midwifery teaching. An international educator commented on how the lack of workforce impacted on her role:

> *The universities have to have a full complement of staff. It is hard to capacity build when you don't have many people to capacity build with. (International educator)*

The participants stated that there was not enough government or education institution support to increase the numbers of midwifery educators. This finding indicated that midwifery workforce development may not be recognized as a priority in PNG. A national educator felt that teaching capacity would have improved if there were more government support to increase the numbers of midwifery educators working in education institutions:

> *I think National Department of Health (NDoH) should do what they can do in their power to make sure that there are 4 national educators in every university so that these international educators that came to do capacity building can build capacity on these human beings. (National educator)*

National participants felt unsupported by the education institution in their career progression and role development and expressed that they learnt how to be educators on their own and did not have

much opportunity for professional mentorship or guidance. A national educator expressed that her teaching colleagues in the faculty were busy with their own workload:

> *When I first started at the education institution (in an education role), I found it quite difficult. There was no one there to mentor me, even though my colleagues were there, they were more into their own subjects. (National educator)*

Issues with the capacity of the midwifery regulatory body and hospital administration to control the quality of clinical midwifery practice were also constraining factors identified by the participants. There were few disciplinary measures in place for absenteeism or unprofessional conduct and educators were challenged on a daily basis working with limited resources which created a stressful working environment. Even though the PNG Maternal and Child Health Initiative provided simulation equipment and other physical teaching resources, there was a lack of infrastructure in some education institutions to access internet-based resources and this was identified as a barrier to improve teaching and learning.

Summary

This chapter has reported findings from the first phase of this mixed methods study that sought to identify the key factors necessary for an effective international partnership as a strategy used to strengthen midwifery teaching in LMIC. It was found that while working in the PNG MCHI a midwifery educator's ability to improve teaching was dependent on an awareness of professional capabilities, presence of collaborative relationships and motivations to improve the health status of women. Factors which affected both the international and national educator's achievement of the capacity building objectives were related to having a mutual understanding, cultural competence, adequate preparation for the role and understanding of the environmental constraints. These findings contribute a more detailed understanding of the factors that facilitate and constrain the ability of midwifery educators to enhance midwifery teaching and learning within the context of a capacity building approach using international partnerships. These findings will be discussed in Chapter Six.

Developing a model to guide the planning and implementation of capacity building programs for midwifery education may be useful to adequately prepare health systems and individuals to work together to strengthen midwifery education in LMIC. Determining if these findings are applicable in other LMIC would be useful to establish if these findings are transferable to other contexts. The following chapter will discuss the findings of Phase 2 of this study which explores the individual,

partnership and context specific factors which influence the process to improve midwifery teaching in LMIC.

CHAPTER 5 – PHASE 2 METHODS AND FINDINGS

Introduction

The previous chapter presented the findings from the first phase of this study which focused on the experiences of midwifery educators working in an international partnership as a way to build capacity in midwifery education, the PNG Maternal and Child Health Initiative. This chapter will describe the findings from the second phase of the study which further explored how international and national educators work together in LMIC.

The aim of Phase 2 was to:

- Understand how capacity building in midwifery education using international partnerships is conducted in other LMIC.

The objectives of Phase 2 were to:

- Describe the experiences of national and international midwifery educators when working together in a capacity building program in a LMIC; and,
- Determine whether the conceptual understandings developed in Phase 1 have resonance in a broader sample.

Methods

Design

Phase 2 of this study used a descriptive survey design. This design was used to maximize objectivity and generalizability of the findings (Harwell 2011). This method allows the findings to be inferred to a similar population and does not involve the perceptions of the researcher in the analysis. Using a descriptive survey in the second phase of this study also allows for testing, clarifying and building on the phase 1 findings obtained through a qualitative design (Creswell 2013; Harwell 2011)

The development and structure of the survey is described in the following section.

Data Collection

The development of the survey questions were informed by the phase 1 findings, the theory of cultural dimensions (Hofstede 2001) and the theoretical framework guiding this study (Ajzen 1991).

Development of the survey – informed by Phase 1

Each theme from the findings of Phase 1 informed the development of the survey questions. As explained previously, seven themes were identified which highlighted the enabling and constraining factors influencing midwifery educators to improve teaching and learning. These themes were used to generate questions for Phase 2, in order to establish if similar findings are relevant in other LMIC. Examples of how the Phase 1 findings and questions for Phase 2 survey are related are provided in Table 3. The full table is included in Appendix 8.

Development of the survey – informed by a theory of cultural dimensions

Being able to work collaboratively in a cross-cultural context has been identified as a key factor in capacity building partnerships (Dawson et al. 2014; Eskerod & Huemann 2013). A theory of cultural dimensions has been used in other research to provide insight into the similarities and differences between cultures (Hofstede 2001; Mangundjaya 2013; Rhodes 2014; Rhodes & Rumsey 2016; Saffu 2003). Concepts from this theory were used to determine if midwifery educators had an understanding of the influence of their own and their colleague's culture on the partnership and achievement of capacity building goals to improve teaching and facilitation of learning. Participants were asked about their knowledge of their colleague's cultural hierarchical structure, usual communication style, orientation to time and adherence to social norms. Based on the literature supporting the inclusion of cultural awareness training to prepare individuals for working in a cross-cultural partnership (Rhodes 2014; Rhodes & Rumsey 2016; Rumsey et al. 2016b; Truong, Paradies & Priest 2014), a list of responses related to knowledge of cultural dimensions were developed in the survey that participants could choose as either enabling or constraining them to improve midwifery teaching.

Development of the survey – informed by the theoretical framework, the Theory of Planned Behaviour

As explained previously, the social cognition behaviour change theory, the Theory of Planned Behaviour (TPB) (Ajzen 1991) was used as a lens through which to view the research findings and shaped the data collection and analysis (Creswell 2009).

A section of the survey therefore sought to gain further insight into factors that may explain or predict how the midwifery educator's attitude, influence of social norms and self-efficacy influences their ability to perform improved learning and teaching. Generic behaviours have been identified in previous research using the TPB as being able to influence behaviour change (Godin et al. 2008; Michie et al. 2005; Viano, Holbrook & Rannikmae 2012). Responses were provided in the survey that

participants could choose were individual motivations to improve midwifery teaching and facilitation of learning in their context.

Structure of the survey

The survey asked 13 demographic questions to describe the participant's personal and professional profile. There were 28 additional questions that gathered data pertaining to the participants experience and perceptions of strengthening midwifery educator's capacity in teaching in LMIC, incorporating the concepts described above. There were slight variations in the wording of the survey questions depending on whether the participant identified as an international or national educator.

The questions consisted of a stem and either a space for free text, a selection from pre-determined answers in a drop-down box or a selection from the most relevant response using a five point Likert scale. There were four open-ended questions. The survey was pre-tested on two international and two national educators who have previously worked in a capacity building initiative to strengthen midwifery teaching. None of the individuals who pre-tested the survey participated in the final survey. Minor changes to language and format were made from the feedback. A sample of the survey is included in Appendix 9.

Table 3: Example of how Phase 1 findings were used to develop Phase 2 survey

Phase 1 theme	Phase 2 survey questions
Knowing your capabilities	Do you think being more aware of your professional capabilities would help you to improve midwifery teaching?
Being able to build relationships	Do you feel that knowledge is shared both ways? Do you feel working side-by-side in the education institution enables improved midwifery teaching?
Being motivated to improve the health status of women and newborns	Which of the following factors motivates you to improve midwifery teaching? (state your agreement with the following options) • Having a specific goal to work towards • Having written roles and responsibilities • Having incentives for performance
Having a mutual understanding of the capacity building project	Do you have a written work or activity plan for how to work together with your colleague?

Phase 1 theme	Phase 2 survey questions
Preparing stakeholders for working together in a capacity building project	In your experience working together to improve midwifery teaching, how important is it to have the following factors? (state your agreement with the following options) • Willingness to work together collaboratively • Mutually developed and documented roles and responsibilities • Up-to-date clinical skills
Knowing how to adapt to a different culture	Do you feel you have an understanding of your colleague's culture? What additional cultural knowledge or skills would enable you to be more effective in your role? (state your agreement with the following options) • Language skills • Previous travel outside home country • Previous work experience in LMIC
Having an enabling environment which supports improved midwifery education	How much do the following environmental factors constrain your ability to improve midwifery teaching? (state your agreement with the following options) • Insufficient midwifery educator workforce • Lack of positive role models • Poor quality professional workplace appraisal/performance review

Data Collection

The survey was self-administered through the online survey platform, Survey Monkey, over a two month period in February and March 2016. There were three exclusion questions to determine if the participant fulfilled the criteria of being either an international or national educator, working with a national or international colleague (respectively) in an education institution in a LMIC currently or within the past two years for equal to or more than a three month period.

Participant selection and sampling

Participants were invited to participate purposively using criterion sampling as only those educators who fit the criteria of being either an international or national midwifery educator working in an education institution in a LMIC were of interest (Palinkas et al. 2015; Palys 2008). Some potential participants were identified from professional networks within the World Health Organization Collaborating Centre Global Network for Nursing and Midwifery (WHOCC GN). The University of Technology Sydney is the current secretariat for the WHOCC GN and is aware which Collaborating

Centres are involved in building midwifery capacity through international partnerships in an education institution. Midwives involved in projects linked with the WHO CC were emailed an invitation to participate with a web link to the online survey. Other participants responded to an invitation to participate posted on the Global Alliance for Nursing and Midwifery (GANM) email listserv forum.

The survey contained a participant information and consent form, both of which were required to be read and completed prior to advancement through the survey pages. Names and contact details of participants were not required and participants were advised that the results of their survey were confidential. It is unknown how many educators may have been eligible to complete the survey but the participant selection criteria was specific and requested that individuals must be working with an international or national colleague respectively for a minimum period of three months in an education institution in a LMIC. Thirty-three international and 25 national educators started the survey.

Data analysis

Individual participant quantitative data were extracted from the online survey platform into an excel spreadsheet to allow for better visibility and organisation of the data. This process helped to ensure that all relevant variables were present and complete which facilitated the initial data analysis. Open ended simple text responses were also extracted and in some cases allocated numerical codes. For example, the participants were asked to write in a free-text box a response to the question; "what was the focus of the capacity building program in which you were working?" Responses with similar themes of 'curricula update' or 'teacher training' were able to be allocated numerical codes and entered as quantitative data. Other qualitative data consisting of longer sentences or phrases were removed from the spreadsheet and analysed separately using a manual method of open coding. Cleaning the data in this way enabled me to get close to the data, increases the rigour of the research and ensures completeness of the data (Baxter & Jack 2008; Braun & Clarke 2006).

Cleaned quantitative data were then entered into a statistical software package, SPSS version 23.0, which was used to produce descriptive statistics. Cross-tabulation was conducted to explore any relationships between the variables. Percentages, means and frequencies were generated from the data to help summarise and find patterns in the data (Saldana 2009).

Qualitative data from four open ended questions were analysed by identifying patterns, similarities and differences in the data in the first round of open coding and then theme labels were allocated in

the second round. The analysis of the qualitative data involved printing the completed surveys and highlighting selected sections of the survey responses with coloured highlighter pens which enabled a clear understanding of the participant's views. Data analysis was performed and discussed with the supervisory team until consensus on the key themes was obtained.

Findings

Twenty-five national educators and 33 international educators started the survey. Nine national (completion rate 36%) and 18 international educators (completion rate 55%) completed the survey and were included in the analysis.

Participant description

Demographics

Participants self-identified whether they were international expatriate educators, working temporarily in a host LMIC or a national educator who was working in the LMIC of his/her birth. More than half of international (n=12) and national (n=5) educators were between 45-64 years old. The majority of participants who responded were female (n=23, 85%). Participants identified their own country of birth to be from one of the following World Health Organization defined geographical regions (World Health Organization 2016a): Americas, Western Pacific Region (WPRO), Europe Region (EURO), Eastern Mediterranean Region (EMRO) and African Region (AFRO). A description of participant's age and gender is included in Table 4. The participants' regions of birth are displayed in Figure 2.

Table 1: Description of Phase 2 participants' age and gender

AGE	International n=18 (100%)	National n=9 (100%)
25-34	n=1 (6%)	n=2 (22%)
35-44	n=5 (28%)	n=2 (22%)
45-54	n=5 (28%)	n=3 (33%)
55-64	n=7 (39%)	n=2 (22%)
GENDER		
Male	n=2 (11%)	n=2 (22%)
Female	n=16 (89%)	n=7 (78%)

Phase 2 participants regions of birth

Legend: ■ Americas ■ WPRO ■ EURO ■ EMRO ■ AFRO
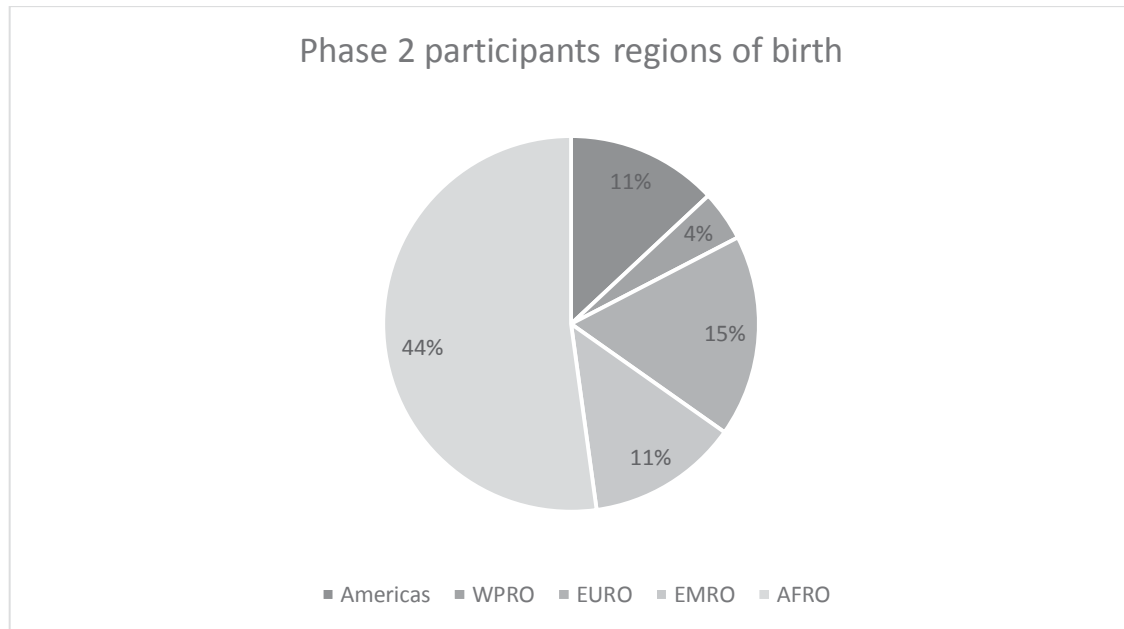
*Regions used to describe birth country are based on the World Health Organization's specified regions:

Americas – North and South America Regional Office
WPRO – Western Pacific Regional Office
EURO – Europe, UK and Ireland
EMRO – Eastern Mediterranean Regional Office
AFRO – Africa Regional Office

Professional background

More than half of the participants (n=16, 59%) had completed university education to a Master's Degree level. Participants all had clinical midwifery experience before working in an education role and more than half (n=15, 55%) had worked as a midwifery educator for more than five years at the time of completing the survey. A description of participant's academic qualifications and professional experience are included in Table 5 and Table 6 respectively.

Table 2: Phase 2 participants' highest academic qualification

HIGHEST ACADEMIC QUALIFICATION	International n=18 (100%)	National n=9 (100%)
Undergraduate diploma	n=1 (6%)	n=1 (11%)

Bachelor	n=1 (6%)	n=1 (11%)
Postgraduate diploma	n=1 (6%)	n=1 (11%)
Master	n=11 (61%)	n=5 (56%)
PhD	n=4 (22%)	n=1 (11%)

Table 6: Phase 2 participants' professional experience

YEARS OF EXPERIENCE AS MIDWIFE	International n=18 (100%)	National n=9 (100%)
1-5	n=2 (11%)	n=1 (11%)
6-10	n=3 (17%)	n=1 (11%)
11-15	n=3 (17%)	n=2 (22%)
16-20	n=2 (11%)	n=1 (11%)
21-25	n=2 (11%)	n=2 (22%)
>25	n=6 (33%)	n=2 (22%)
YEARS OF EXPERIENCE TEACHING		
<1	n=2 (11%)	n=0 (0%)
1-5	n=6 (33%)	n=4 (44%)
6-10	n=3 (17%)	n=0 (0%)
11-15	n=3 (17%)	n=2 (22%)
16-20	n=1 (6%)	n=2 (22%)
21-25	n=1 (6%)	n=1 (11%)
>25	n=2 (11%)	n=0 (0%)

Previous experience living and/or working in a cross-cultural environment outside of home country

More international educators (n=13, 72%) than national educators (n=4, 44%) had previously lived outside their home country and less than half the participants (n=10, 37%) had previous experience working in an education role in another country. Participant's previous experience living or working overseas is included in Table 7.

Table 7: Phase 2 participants' previous experience living or working overseas

EXPERIENCE LIVING OVERSEAS BEFORE CURRENT CAPACITY BUILDING ROLE	International n=18 (100%)	National n=9 (100%)
Yes	n=13 (72%)	n=4 (44%)
No	n=5 (28%)	n=5 (56%)
ROLE OVERSEAS BEFORE CURRENT CAPACITY BUILDING ROLE		
Leadership role	n=3 (17%)	n=2 (22%)
Teaching	n=9 (50%)	n=1 (11%)
Study	n=1 (6%)	n=1 (11%)

Current experience working in a capacity building process to improve midwifery teaching

Participants were employed mostly in the AFRO region by either Government or Non-Government Organisations or Universities. Most (n=17, 75%) of the participants listed their role title as 'midwifery educator' and their primary focus of work was teaching students. Three national educators and two international educators did not identify what the focus of capacity building was in the program in which they worked. Descriptions of participant's current experience are included in Tables 8, 9 and 10.

Table 8: Phase 2 participants' current employer

CURRENT EMPLOYER	International n=18 (100%)	National n=9 (100%)
Government	n=1 (6%)	n=3 (33%)
University	n=5 (28%)	n=2 (22%)

Non-Government	n=9 (50%)	n=3 (33%)
Nursing Council	n=1 (6%)	n=0 (0%)

Table 9: Phase 2 participants' current capacity building experience

ASPECT OF CAPACITY BUILDING	International n=18 (100%)	National n=9 (100%)
Teaching students	n=7 (39%)	n=2 (22%)
Teaching educators	n=6 (33%)	n=2 (22%)
Clinical practice	n=1 (6%)	n=1 (11%)
Curriculum review	n=2 (11%)	n=1 (11%)
TITLE OR POSITION		
Advisor to the Ministry of Health	n=1 (6%)	n=0 (0%)
Dean of faculty	n=0 (0%)	n=4 (44%)
Midwifery educator in faculty	n=10 (56%)	n=7 (78%)
Advisor to midwifery professional association	n=1 (6%)	n=2 (22%)

Table 10: Phase 2 participants' current work region

CURRENT WORK REGION	International n=18 (100%)	National n=9 (100%)
Americas	n=1 (6%)	n=0 (0%)
WPRO	n=3 (17%)	n=1 (11%)
EMRO	n=4 (22%)	n=1 (11%)
AFRO	n=8 (44%)	n=5 (56%)
SEARO	n=1 (6%)	n=0 (0%)

Cultural competence

During the international partnership, more international (n=11, 61%) than national (n=2, 22%) educators felt that they had an understanding of the other's culture and were adequately prepared (international n=15, 83%; national n=3, 33%) to work in a cross-cultural environment. These results are described below in Table 11.

Table 11: Phase 2 participants' perception of their cross-cultural knowledge and preparedness

PARTICIPANTS' PERCEPTION OF THEIR CROSS-CULTURAL KNOWLEDGE AND PREPAREDNESS	International n=18 (100%)	National n=9 (100%)
You have an understanding of your colleagues culture	n=11 (61%)	n=2 (22%)
You feel adequately prepared to work in a cross-cultural environment	n=15 (83%)	n=3 (33%)

More than half of participants stated that they would have found it very enabling to have language skills, knowledge about their colleague's learning and communication styles and knowledge about how the culture accepts individuality. These results and other aspects of culture which participants found to be somewhat enabling are described in Table 12.

Table 12: Additional cultural knowledge or skills perceived by Phase 2 participants to enable them to be more effective

ADDITIONAL CULTURAL KNOWLEDGE OR SKILLS PERCIEVED BY PHASE 2 PARTICIPANTS TO ENABLE THEM TO BE MORE EFFECTIVE	International n=18 (100%)	National n=9 (100%)
Language skills	n=17 (94%)	n=5 (56%)
Previous travel outside home country	n=8 (44%)	n=2 (22%)
Previous work experience in LMIC	n=8 (44%)	n=3 (33%)
Knowledge about different learning styles	n=12 (67%)	n=6 (67%)
Knowledge about different communication styles	n=12 (67%)	n=6 (67%)
Knowledge of how the culture is oriented to time	n=13 (72%)	n=4 (44%)
Knowledge of the influence of hierarchy	n=9 (50%)	n=4 (44%)
Knowledge of the distinction in gender roles	n=10 (56%)	n=3 (33%)

Knowledge of adherence to social norms	n=9 (50%)	n=7 (78%)
Knowledge of how the culture accepts individuality	n=12 (67%)	n=7 (78%)

Qualitative findings from the open questions indicate that both international and national educators felt that it was challenging to work collaboratively when there were misunderstandings due to culture. Two themes emerged from the open ended survey responses related to working in a cross-cultural environment. These were:

- Communicating effectively
- Adapting to the context

Communicating effectively

Where there was no common first language, participants expressed that there were often challenges in communication and understanding between the national and international educators. This finding applied to both written and spoken communication. International educators expressed that they would have preferred their national colleagues to communicate more with them verbally and electronically and share more context specific information that would help them in their role. Lack of fluency in a mutual language was seen as inhibiting open communication about important aspects of the capacity building partnership. National educators expressed that they found the following factors the most challenging when working in an international partnership:

Language barrier (National educator)

Communication (National educator)

International educators expressed how their improved learning could be facilitated by more effective communication in the following way:

…share key documents related to curriculum and past teaching in order for me to assess the needs… (International educator)

…be a proactive culture broker, let me know what's what, so I don't end up being accidentally pushy… (International educator)

The second theme is related to being able to adapt to the context. National educators felt that some international educators had unrealistic expectations about the availability of resources or quality of midwifery workforce. A national educator reflected these views, expressing it in this way:

> *Colleagues from developed country have high expectations of the educational systems which may not be realistic in a low income country. (National educator)*

In many of the LMIC there were inconsistent or absent internet and a lack of adequate teaching materials. When international educators displayed frustration regarding the lack of resources or infrastructure, this behaviour was perceived by the national educators as overly critical and did not support the collaborative relationship. Both groups of participants expressed that specific factors made it challenging to adapt international midwifery teaching and clinical practice guidelines to the context. These included social and professional hierarchy which limited individual autonomy, strict gender roles which defined a woman's role in society, differences in time orientation and competing professional and personal priorities.

Effective collaborative relationships

This phase of the study found that educators associated feelings of reciprocity and harmony to be indicative of an effective collaborative relationship. Participants identified that the quality of relationship they had with their national/international colleague influenced their ability to improve midwifery teaching.

Fewer national (n=4, 44%) than international (n=14, 78%) educators felt that there was mutual knowledge sharing during the capacity building process. When working with colleagues from another culture, the participants reported that additional information regarding the cultural dimensions of learning and communication style, orientation to time, hierarchy, gender roles, social norms and acceptance of individuality could also be useful to help them build effective relationships and enhance communication.

Most participants felt that working side-by-side in both clinical practicum sites and education institutions helped to improve midwifery teaching. These results are displayed below in Table 13.

Table 13: Working together to improve midwifery teaching

RELATIONSHIPS	International	National
	n=18 (100%)	n=9 (100%)
Knowledge is shared both ways always or most of the time	n=14 (78%)	n=4 (44%)
Working side-by-side in <u>clinical practicum site</u> improves midwifery teaching	n=15 (83%)	n=8 (89%)
Working side-by-side in <u>education institution</u> improves midwifery teaching	n=14 (78%)	n=7 (78%)

Two themes emerged from the qualitative data which highlighted factors the educators found important to facilitate an effective relationship. These were:

- Learning from each other
- Supporting each other

Learning from each other

Both groups of educators identified that a rewarding aspect of working together was learning from each other. Some international educators expressed that learning about the culture and different midwifery practice in the host country helped them understand how to facilitate the capacity building process. The national educators appreciated the openness of their international colleagues to learn how midwifery was practiced in their context. The national educators also expressed that they found it satisfying to collaborate with international colleagues and expressed it in the following way:

> *Experiences are shared on both sides and as colleagues, we learn from each other. (National educator)*

International educators expressed that working in a LMIC with national colleagues gave them opportunities for their own professional development. The international educators stated they gained new skills in the clinical practicum setting and improved their ability to collaborate with stakeholders in a cross-cultural environment and hone their skills in leadership and management. The national educators identified that receiving contemporary knowledge and skills in teaching and practice was beneficial as they did not always receive up-to-date teaching resources from their education institution. This finding indicates that the capacity building process was not a one-way

learning process and being open to learn from each other was a strength of capacity building in an international partnership. A national educator reflected others views and stated that a benefit of working in a partnership was:

> *… getting new techniques on reducing maternal mortality. (National educator)*

The international educators expressed that it was rewarding to see their national colleagues adopt different teaching methodologies and use improved skills in leadership and management. A quote from an international educator reflected other participant's views:

> *"Watching (my colleague) take more responsibility, and doing this (teaching) better and more independently. She is taking more initiative and thinking through the possible outcomes of more situations". (International educator)*

Supporting each other

It was highlighted that positive attitudes of colleagues and having a congenial, supportive working environment were important factors which strengthened the international partnership. International educators felt that their role in the capacity building partnership was enabled when their national colleagues were actively engaged in the capacity building process and took the lead in teaching and clinical facilitation:

> *…to be available during teaching and practical sessions…(International educator)*

> *…with greater involvement in the process…(International educator)*

> *…provide more clinical experiences for students…(International educator)*

International educators had the expectation that their national colleagues would demonstrate consistent teaching and facilitation of learning techniques, even in the absence of their international colleagues:

> *…maintain procedures and practices even when capacity builder has left…(International educator)*

National educators expressed that they felt supported by the international educators when the knowledge and skills that were shared were relevant to the context:

> *…provide skills that will be applicable in a limited-resource setting…(National educator)*

In addition to sharing knowledge and skills, national educators expressed that they would feel more supported to implement improved methods of teaching if they were provided teaching materials:

> *…provide the necessary resources to help me…(National educator)*

> *…provide teaching books…(National educator)*

Having a workplace exchange in a higher-income country was perceived by some national educators as potentially enabling more learning opportunities. This was expressed by a national educator in the following way:

> *…give us their experiences, idea sharing and to work with them in their working place…(National educator)*

Factors needed to improve midwifery teaching

The participants identified individual, partnership, process and environmental factors which they thought were important to have in order to improve midwifery teaching. These are reported in the following section.

Self-assessment against international competencies

More than half (n=16, 61%) of participants responded that self-assessment against the World Health Organization (WHO) Core Competencies for Midwifery Educators (WHO 2010) would help them evaluate their professional capabilities and consequently help them to improve their own midwifery teaching.

Work plan

Less than half of participants (n=13, 48%) reported that they had a work plan to guide the capacity building process. A third (n=9, 33%) of participants reported that the work plan was mutually developed. Twenty participants (74%) thought that having a work plan would enable improved midwifery teaching.

Individual factors

The participant's rated their level of agreement that the following factors would enable improved teaching and the results are listed below in Table 14.

Table 14: Individual factors perceived to be needed by Phase 2 participants to improve midwifery teaching

INDIVIDUAL FACTORS PERCIEVED TO BE NEEDED TO IMPROVE MIDWIFERY TEACHING	International n=18 (100%)	National n=9 (100%)
Willingness to work together	n=18 (100%)	n=9 (100%)
Understanding of mutually developed roles and responsibilities	n=16 (89%)	n=9 (100%)
Up-to-date clinical skills	n=18 (100%)	n=9 (100%)
A formal adult-education qualification	n=15 (83%)	n=6 (67%)
Confidence to use contemporary pedagogy	n=17 (94%)	n=9 (100%)
Able to access to contemporary midwifery evidence	n=18 (100%)	n=9 (100%)
Clinician skills and knowledge aligned with curriculum	n=18 (100%)	n=9 (100%)

Motivations to improve midwifery teaching

According to the TPB, an individual's motivation to perform a behaviour is considered a behavioural belief. Having a specific goal to work towards is considered a control belief. An example of a normative belief, which is the third variable in the TPB, is having social pressure from peers. In other research, the presence of these variables has shown to encourage and predict behaviour (Viano, Holbrook & Rannikmae 2012; Volino 2014; Webb & Sheeran 2006). In this study, participants ranked the following factors as motivating their own behaviour to improve midwifery teaching:

1. Improving the health status of women and newborns
2. Having a specific goal to work towards
3. Having written roles and responsibilities
4. Knowing the likely outcome of their behaviour
5. Being spoken to in a motivational way
6. Having tasks to perform of increasing difficulty
7. Having financial incentives
8. Having social pressure from peers

These findings are consistent with the behaviour change domains informed by the TPB (Michie et al. 2005; Michie et al. 2008; Michie et al. 2013). Participants mostly identified with behavioural beliefs which included their personal motivation for improving the health status of women and newborns,

gaining confidence from performing tasks increasing in difficulty and feeling rewarded by having financial incentives. The participants also identified that the normative beliefs of having social pressure and being spoken to in a motivational way by a role model or colleague encouraged them to improve teaching. The control beliefs of having written roles and responsibilities and knowing the outcome of the behaviour (using contemporary midwifery research evidence and adult education methods) were also agreed or strongly agreed by the participants as motivating factors to improve midwifery teaching.

Environmental factors

Related to the institutional and wider health system environment, more than half of all participants ranked the following factors as very or extremely constraining their capacity:

1. Insufficient midwifery educator workforce
2. Lack of simulation laboratory and teaching resources
3. Lack of positive role models
4. Lack of performance appraisal
5. Midwifery regulatory body not functioning

These results are displayed in Table 15.

Table 15: Environmental factors perceived by Phase 2 participants to constrain their ability to improve teaching

ENVIRONMENTAL FACTORS PERCIEVED TO CONSTRAIN EDUCATORS ABILITY TO IMPROVE TEACHING	International n=18 (100%)	National n=9 (100%)
Insufficient midwifery educator workforce	n=16 (89%)	n=9 (100%)
Lack of simulation lab and resources	n=12 (67%)	n=8 (89%)
Lack of positive role models	n=13 (72%)	n=7 (78%)
Lack of performance appraisal	n=11 (61%)	n=7 (78%)
Midwifery regulatory body not functioning	n=9 (50%)	n=5 (56%)

Additional comments were made by the educators in relation to the environmental factors identified in Table 15. These are related to the institutional and wider health system factors viewed as constraining educators to improve teaching.

External to the education institution, it was identified that several factors impacted on the educator's ability to implement improved midwifery teaching. These factors include midwifery education being recognised as a worthwhile investment by the government and society. It was expressed that in some LMIC, there was little understanding and support of midwifery education from family and community members and medical training of doctors was more highly valued and attracted more resources. A well-functioning midwifery regulatory body which controls the quality of midwifery practice and community recognition of the midwife as an autonomous professional separate from other cadres of health professionals were factors also identified. A lack of clinician support, congruent with what was being taught in the education institution was also perceived as affecting the national educator's ability to adequately support student's clinical learning.

Both groups of educators felt that the education institution could do more in terms of recruiting workforce and providing equipment and teaching resources to enable the national educators to be effective in their role. Improved internet infrastructure for accessing teaching material and research evidence were identified as factors which could support locally generated research. Participants expressed that having adequate salary, a clear job description and workplace leadership would also provide a more enabling work environment. Examples of administrative challenges faced by the educators in the institution included inconsistent application of student grading standards, and a lack of performance management and professional appraisal systems for national educators.

The findings showed a lack of autonomy for midwifery educators within the faculty, where individuals would have to get approval from the administrative hierarchy to approve small changes which was perceived as being professionally restrictive and delayed quality improvement activities. In addition, national educators expressed that they felt unsupported by the university to engage with donors which limited their opportunity to negotiate for increased funding opportunities. An international educator expressed that a constraining factor was:

> *Administrative hierarchies - controlling, approving (or not), funding (or not), etc. So much we*
> *could do if we were more released to be creative and nimble. (International educator)*

Summary

This chapter has reported the findings from a descriptive survey that sought to identify the key factors necessary for an effective cross-cultural partnership which was used as a strategy to strengthen midwifery teaching in various LMIC. The findings highlighted that midwifery educators

who work in a capacity building partnership in African and Asian LMIC feel that adequate preparation for the role and being supported to change behaviour were key enabling factors.

It was found that international educators felt better prepared to work in a cross-cultural partnership compared to the national educators and also had a better understanding of their colleague's culture. This finding may be associated with the international educator's increased experience travelling or working in different cultural contexts as more international educators than national educators had either travelled, studied or worked in LMIC.

The findings from Phase 2 revealed that communicating effectively in a cross-cultural partnership involves more than knowing the local language or having English fluency. Simplifying technical English to support colleagues, whose first language is not English, to understand new concepts has been identified as an important skill for international educators. In addition, identifying the culturally acceptable way in which national educators prefer to communicate, either individually face-to-face, in a group, written, or using electronic media is also helpful to ensure the effective transfer of information between individuals.

The findings from this phase of the study provide insights which could inform the development of a framework for capacity building in LMIC. Using a framework may also enable better monitoring and evaluation of the capacity building process, ensure that positive outcomes are measureable and contribute to building a research knowledge base in this area.

The next chapter will discuss the findings from both phases of the study in relation to contemporary literature in the field of education, behaviour change and cultural competence. A conceptual model which may be used to guide international and national midwifery educators to work together in LMIC to improve midwifery teaching will be suggested based on these findings.

Chapter 6 - Discussion

Introduction

This sequential exploratory mixed method research explored midwifery educator capacity in supporting effective learning and teaching in LMIC with the aim of providing insights into strengthening capacity in these settings. The study was conducted in two phases. Phase 1 employed a qualitative exploratory design to explore the perceptions and experiences of 13 national and 13 international midwifery educators working in a capacity building initiative in PNG. Thematic analysis revealed enabling and constraining factors that contributed to the ability of midwifery educators to apply new methods of teaching and facilitate improved student learning. Similarities were noted between the themes identified in the analysis and the TPB variables indicating that a midwifery educator's attitude, the influence of key referents in the social environment (subjective social norm) and perceived behaviour control affected the transfer of knowledge and learning in the capacity building partnership. The Phase 1 findings informed the second phase of the study that further explored the factors influencing midwifery educator capacity building with the aim of investigating whether the factors in PNG project were applicable in other LMIC contexts.

A web-based questionnaire was developed to survey 18 international and nine national educators from 13 different countries. The descriptive statistical analysis of the findings confirmed that the factors affecting educators in PNG were also experienced by educators working in midwifery education institutions in other LMIC which indicates that midwifery educators working in international partnerships have similar needs irrespective of the context.

This chapter will first summarise the key findings from each phase of the study in relation to the current research. The main areas of interest from the overall study will then be discussed. These areas are related to enabling improved midwifery teaching and learning by strengthening three main areas: individual, partnership and environmental factors. Key issues will be discussed in this section under those three headings. The chapter will conclude with a framework for capacity building in international partnerships that can be used to guide how organisations and individuals work together to strengthen midwifery educator capacity in LMIC.

Discussion of Phase 1 findings

As previously stated, the objectives of Phase 1 were to:

- Examine the factors that enabled or constrained the ability of both national and international midwifery educators to implement improved midwifery teaching and learning;
- Explore how national midwifery educator's attitudes, subjective social norms and perceived behaviour control are linked to intention and improved teaching behaviour;
- Consider the issues related to working in a cross-cultural environment for both national and international midwifery educators; and,
- Develop an online survey based on the findings and informed by the Theory of Planned Behaviour (TPB) to study the issues relating to capacity building programs in midwifery education in other LMIC.

Phase 1 found that successful international partnerships are dependent on many factors. Some of these factors can be attributed to the individual's attitude, the influence of social norm and their perceived behavioural control which are the variables described in the TPB as the precursors to behaviour. Other findings indicate that factors associated with the process of capacity building, like having adequate preparation for the role, and a supportive professional environment are also influential.

The TPB can be used as a lens through which to view how this approach to capacity building can enable the midwifery educators to improve teaching and learning. This theory was used because successful capacity building in an international partnership depends on certain behaviours from both the international and national educator. International capacity building partnerships have been found to be more effective if the international educator is culturally competent, clinically relevant and can transfer knowledge effectively. Improved outcomes seem more possible if national educators are engaged equally in the capacity building process, can provide feedback to their international colleagues regarding how to navigate the local context and are open to learning new skills. These individual behaviours may not always be evident and using the TPB can help to identify and modify existing individual behaviours in order to improve the international capacity building partnership.

The seven themes identified in the first phase were mapped to TPB variables of attitude, subjective norm and perceived behaviour control and are displayed in Figure 3.
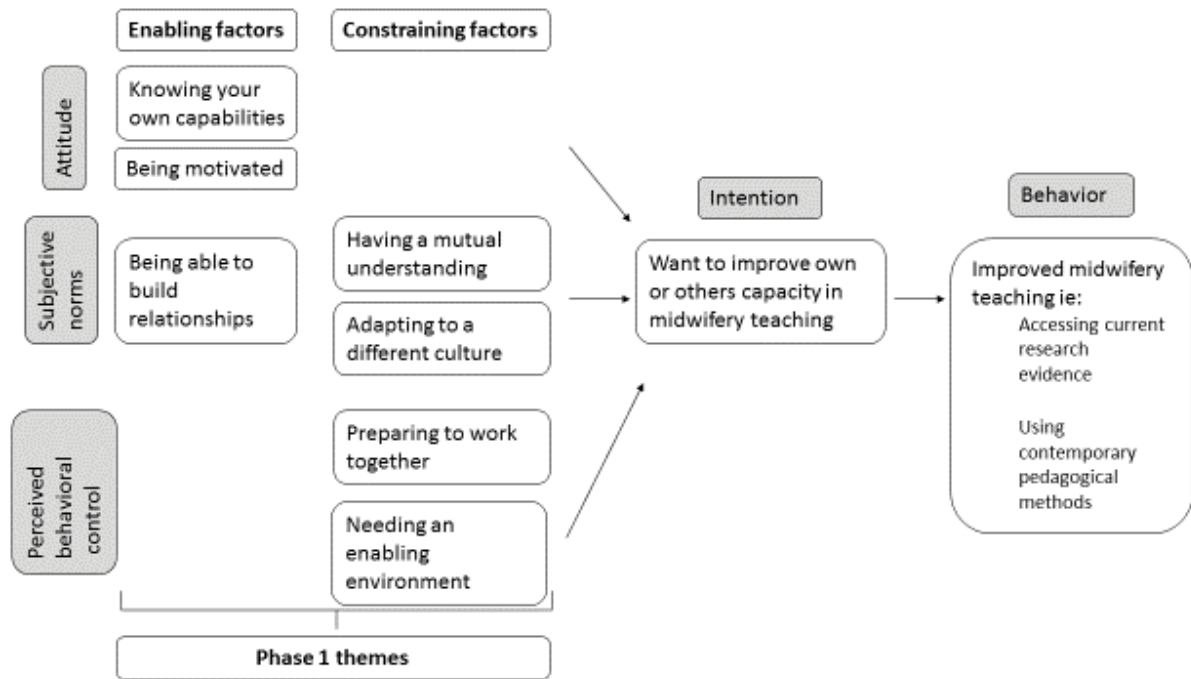
The mapping suggests that an individual's positive attitude enabled a high level of awareness of their own capabilities and ensured that they were motivated to improve teaching. Supportive and collegial social influences enabled midwifery educator's ability to build relationships, but without the support of key referents it was challenging to have a mutual understanding of the capacity building process and adapt to differences in culture. The educators perceived that they had no control over some environmental aspects, such as institutional governance and the quality of clinical practice in the clinical practicum sites. Knowing how to mitigate these barriers may have better prepared them for working together to improve teaching and learning. In the discussion below, the findings related to the TPB variable of attitude will be discussed first, followed by the findings related to subjective norm and then the perceived behaviour control variables.

Theory of Planned Behaviour – Influence of behavioural belief and attitude

When mapped to the TPB, the two themes aligned with the midwifery educator's attitude are *knowing your own capabilities* and *being motivated*. The TPB variable of attitude refers to the degree in which an individual has a positive or negative appraisal of the desired behaviour (Ajzen 1991).

Knowing your own capabilities

In this phase of the study, participants felt it was beneficial to have insight into whether their professional capabilities were effective for the role, in order to seek learning opportunities to

improve their knowledge and skills in teaching and practice. Personal characteristics of self-awareness and self-regulation were identified as important. This indicates that midwifery educators could be enabled to improve teaching if they are supported in developing critical self-reflection skills. It has been found in other research that reflective practice can also help international consultant be culturally competent by examining the faults and strengths in their own culture (Maclean 2011). This finding is supported by research in high-income countries (Hunter & Warren 2014) which emphasizes that competence is only related in part to the possession of clinical skills and that the attitude of the care provider is also important. Little is known about whether the same importance is placed on these individual characteristics in the LMIC context.

The professional development opportunities provided by the PNG MCHI included supplying the education institutions with midwifery textbooks, clinical simulation equipment and other teaching resources. The national educators were then assisted by the international educators to use the resources which was identified as supporting the applications of contemporary adult education methods in the classroom and clinical practicum sites. Midwifery educators identified that a combination of cultural, leadership, clinical and pedagogical skills were necessary in the role and felt that the international partnership gave them some opportunities to improve in these areas. The perceived need to feel competent across a range of midwifery teaching and practice may indicate a gap in an individual's knowledge and skills or the requirement to have advanced skills when working in an international partnership in an education institution in a LMIC.

It was acknowledged by some educators that just because they were experienced clinicians, did not necessarily mean that they were skilled in teaching. In research conducted in Australia that explores the process of transitioning from nurse to educator, it was reported that many nurse educators initially felt unprepared for the academic environment (McAllister, Oprescu & Jones 2014). Similar findings were found from research in the United States which found that nurse educators felt conflict between their previous role as clinician and new role as academic and more organisational support could assist them in their professional transition (Boyd & Lawley 2009). The support provided in the international partnership for educators to develop a broad range of skills was therefore found to be beneficial.

Being motivated to improve the health of women and children
Both groups of participants expressed that they worked in midwifery education because they were motivated to reduce the high MMR in PNG. The participants reported being focused on improving the

quality of midwifery education in order to sustain improved health outcomes for women and identified that it was important to reach the vulnerable women 'back in the villages'.

The participants continued to remain in a challenging midwifery education role, which was paid less than their clinical hospital midwifery peers, because they were *motivated to improve the health status of women* and reduce the high maternal mortality in their country. Intentions or motivations are terms used interchangeably and the TPB indicates that an individual's motivation to perform a behaviour is highly predictive of their likelihood to actually perform the behaviour (Ajzen & Fishbein 1980; Godin et al. 2008).

The educators perceived that being a better teacher was a way to achieve this goal of addressing health inequity and contribute to improving the quality of midwifery care provided to rural and remote communities. This suggests that the educators were aware of the disparity between rural and urban maternal health indicators and identified that a well-trained midwife can save lives (UNFPA WHO ICM 2014), even in under-resourced rural areas. It has been well established that the distribution of the midwifery workforce both within countries and regions is not always equitable and vulnerable populations are often underserved (Dawson, Nikowane & Whelan 2015; Lemay et al. 2012; UNFPA 2014)

It is therefore useful during the capacity building process to consider an individual's motivation to work in midwifery education in LMIC. The findings from a meta-analysis of experimental evidence (Webb & Sheeran 2006) and from TPB research examining high school teachers implementation of new teaching methods (Viano, Holbrook & Rannikmae 2012) show that an individual's behaviour can be modified once the motivating factor has been recognized by the individual. According to the findings in this study, individuals have various motivations for working together to improve midwifery teaching and learning. Understanding which motivating factors are shared, realistic and achievable could provide significant insights which could aid in the preparation of midwifery educators to work together in an international partnership.

The TPB emphasizes that behaviour cannot be explained by attitude alone and that social pressure from significant others and the amount of control an individual feels they have over performing the behaviour are equally predictive of behaviour (Webb & Sheeran 2006). These two variables will be discussed in the following section.

Theory of Planned Behaviour – Influence of normative belief and subjective social norms

The three themes mapped to the subjective social norm variable were: *being able to build relationships, having a mutual understanding of capacity building* and *adapting to a different culture*. These themes indicate that participants considered that it was important to have effective, culturally appropriate communication between all stakeholders in order for them to feel enabled to improve teaching.

Being able to build relationships

Participants indicated that they were influenced by their experiences of interacting with women of childbearing age, members of their community, their capacity building colleagues and clinicians in clinical placement sites. When mapped to the TPB variable of social norm, it was found that educators were more motivated to improve midwifery teaching when they were in a supportive collaborative relationship with these individuals and groups.

The PNG educators acknowledged that they were strongly influenced by their peers. There was a preference for getting together as a group to share knowledge face-to-face in a supportive environment that enabled practice of clinical and pedagogical skills. International educators around the country also appreciated the opportunity to connect with each other during regular teleconferences, share resources by email and debrief on the telephone. The PNG MCHI provided educators with increased opportunities for collaboration, not only within the cross-cultural partnership but with other members of the midwifery education workforce at stakeholder forums, education workshops, and teleconferences. These opportunities were found to be valuable to build relationships which created a sense of unity, enabling knowledge and experience to be shared. Providing opportunities for national or regional collaboration was found in other research to also be a useful strategy to ensure midwifery educators establish a consistent level of high quality teaching and practice in LMIC (Parfitt, Mughal & Thomas 2008; Requejo et al. 2010; Sherwood & Liu 2005; Uys & Middleton 2011; Ward & Selvester 2012; Wright et al. 2005).

The PNG national educators found using the internet and telephone as the first form of communication culturally challenging. Sitting together in a face-to-face interaction was the preferred mode of communication to share knowledge. This is consistent with most Melanesian cultures who value the collective society more than the individual (Hofstede 2001; Rhodes 2014). It is therefore important during capacity building approaches using international partnerships to identify the specific way in which both partners learn and share knowledge and incorporate a mixture of those methods

into the program (Maclean 2013; Rhodes 2014). The cultural norm for individuals from a country which values collectivism such as PNG is to conform to the most common or prevalent behaviour in society (Hofstede 2001). Emphasis is placed on the quality of relationships and the opinion of others is highly regarded. It was found that building collegial relationships was more important to the national educators than the technical skill of their international colleague and this perception accurately reflects the subjective norm in PNG.

Midwifery educators expressed that they learned new skills in teaching and clinical practice when they had the opportunity to observe it and practice in a supportive environment. It is well accepted in developmental psychology literature that individuals are more likely to display positive behaviours if they are in engaged in a mutually respectful and collegial relationship (Ajzen & Fishbein 1980; Bandura 2001). It is highlighted in education research that reviewed active teaching and learning methods used by nurse educators that learning is more likely to occur when the learner can relate to the new concept in a supportive environment (Clayton 2006). This is also supported by other research which explores high-school science teachers' motivations to introduce a new teaching method (Viano, Holbrook & Rannikmae 2012). It was found that when the educators received collegial support and positive group interactions with peers, their beliefs regarding implementing the new teaching approach were more positive (Viano, Holbrook & Rannikmae 2012).

The PNG educators were positive about working side-by-side with their international colleagues and felt that their teaching was improved by seeing leadership skills, teaching and clinical practice modelled by their international colleagues. Even though working in a cross cultural partnership had some challenges, the PNG midwifery educators perceived that learning occurred both ways and the relationship was built on mutual respect and understanding. The educators stated that working in longer-term collaborative partnerships provided opportunities for sequential learning of knowledge and skills development which helped to build their confidence.

Mutual understanding of the capacity building process

Having a mutual understanding of capacity building was identified as an important factor and without agreement among stakeholders, efforts to improve midwifery teaching were considered to be constrained. Engaging collaboratively in the initial planning of a capacity building process and sharing the responsibility of developing the aims and objectives are strategies which have been identified as necessary components of the capacity building process. Having opportunities for dialogue and discussion with decision makers and individuals implementing the capacity building program has been

found to help ensure local ownership and engagement (Labonte & Laverack 2001; Liberato et al. 2011; Maclean 2013; United Nations Development Program 2009).

Mutual understanding means paying attention to the development of effective collaborative engagement during the preparatory stage of the capacity building program. This could improve the understanding and compliance of partners, enable clarification of roles and responsibilities and ensure that any prerequisite professional skills are completed before the project starts or are included in the lifecycle of the project (Algeo 2015). This form of engagement has been explored in research related to the development of leadership potential in project managers (Algeo 2015) and stakeholder engagement (De Briganti 2015) which shows that harmonised and integrated voices among stakeholders and having a trusted mentor improves the quality of learning (Algeo 2015).

Adapting to a different culture

Aspects of culture such as assumed roles, ways to communicate and acceptance of hierarchy were identified in this study as influencing educator's ability to improve teaching. It was perceived to be challenging to change the practice of educators or clinicians in education institutions or clinical practicum sites, provide or receive feedback from those of different socio-cultural status and communicate effectively in academic English. Having limited knowledge and understanding of the difference in cultural norms can lead to miscommunication and constrain the capacity building relationship (Hofstede 2001; Maclean 2013).

Cultural competence has been identified as a key factor contributing to the success of cross cultural partnerships (Rhodes 2014; United Nations Development Program 2009; Van Vianen et al. 2004). In order for individuals to be effective in their role, organisations involved in international aid, business and education have highlighted that it is necessary to have skills to adapt to a different culture in addition to technical expertise (Fee, McGrath-Champ & Yang 2011; Requejo et al. 2010; Zheng et al. 2001). Being culturally competent involves having effective and appropriate knowledge, attitude, skills and behaviours in order to adapt to cultural differences (Perry & Southwell 2011). Some of the competencies include being aware of personal bias, having positive attitudes towards other cultures, displaying respect for others and showing empathy. These cognitive, affective and behavioural skills are thought to be learnt over time which implies that preparatory training of individuals engaged in international partnerships would only partially fulfill the requirement to be considered culturally competent (Holmes, Bavieri & Ganassin 2015; Perry & Southwell 2011).

There is evidence to support having individuals and organisations working in international development with the appropriate cultural knowledge and skills to enable the bilateral transfer of learning and partnership (Australian Agency for International Development 2011; Australian Government 2005; Franco & Marquez 2011; Johnson, Lenartowicz & Apud 2006; Lasker 2016). This research, however, is mostly written from the perspective of donor or development organisations who are providing the technical assistance or financial support rather than from the LMIC perspective. There is a gap in the literature regarding what specific preparation or orientation is necessary for individuals or organisations in the host country to feel adequately prepared to work with their international colleagues (Fee & Gray 2013; Lasker 2016; Maclean 2013).

Theory of Planned Behaviour – influence of control belief; perceived behaviour control

The two themes aligned with Perceived Behaviour Control were *being prepared to work together* and *needing an enabling environment.* The TPB indicates that behaviour is not only predicted by the individual's intention to perform the behaviour but also to some degree on the availability of resources and the cooperation of others within the local context. These factors determine the perceived behaviour control the individual feels they have over performing the desired behaviour (Ajzen 1991).

Being prepared to work together

A link was found between how well prepared the PNG midwifery educators felt they were to work in the capacity building process and the amount of control they perceived they had to implement improved teaching. Educators identified that they would feel more prepared for the role if they had received necessary updates on any relevant culture, language, technical or pedagogical skills before the partnership started in the host country's education institution. Learning a language can involve a long period of tuition which may be outside the scope of the capacity building project. It has been suggested that other language skills involve being able to moderate the speed of which English is spoken to individuals who speak English as a second or subsequent language, avoid the use of slang and jargon and provide frequent opportunities for clarification during written and spoken communication (Maclean 2011).

A preparation or induction process which addresses these aspects and incorporates behaviour change theory for all stakeholders may be beneficial to provide opportunities for personal and professional growth which aids educators feel prepared for working in a cross-cultural partnership (Fee & Gray 2013; Holmes, Bavieri & Ganassin 2015). Participants in a fellowship program to strengthen nursing

and midwifery leadership capacity in the Pacific found that using a theory of change approach enabled them to learn how to be a leader, negotiate barriers and identified having effective mentorship was beneficial (Rumsey et al. 2016).

Ensuring that a clear job description is available and periodic feedback during performance appraisals is provided were strategies identified by participants as potentially enabling improved midwifery teaching. Conducting regular performance appraisals based on realistic job descriptions is reported to be effective to enable a collective understanding of roles and responsibilities within the team (Laurencelle, Scanlan & Brett 2016; McAllister & Flynn 2016). Specifically, being supported by the education institution to feel confident using a new skill set was identified by new academics as helping the transition from a clinical practice role (Laurencelle, Scanlan & Brett 2016). Identifying areas for professional development and conducting self-assessment of professional capabilities were among the factors identified in another study as important to more fully define the role of the educator (McAllister, Oprescu & Jones 2014).

The educators also expressed a need for a clear definition and explanation of the objectives of the capacity building process and methods for how to monitor and evaluate effectiveness of the initiative. A core set of midwifery competencies has been described as essential to provide high quality maternal and child health services (Fullerton et al. 2011). The Basic Competencies for Midwifery Practice (International Confederation of Midwives 2013) and the Midwifery Educator Core Competencies (World Health Organization 2013) may be useful tools to complement national documents which can provide midwifery educators with an objective assessment of their capabilities and enable them to build on knowledge and skills which are aligned with international competencies (Fullerton et al. 2011) .

The findings from Phase 1 show that having midwifery educators who chose to be in an education role and have access to contemporary midwifery knowledge are important factors which could improve self-efficacy. Some PNG midwifery educators did not choose to work in their education role or work in partnership with international colleagues and this was reflected in their behaviour as a reluctance to change their teaching or clinical practice. Supporting the education institution to develop relevant tools and processes prior to the capacity building process may increase the professional support provided to national educators, ensure institutional accountability and sustainability and increase educator's confidence and empower them to engage more actively in the process (Maclean 2013; Merino & Carmenado 2012; Renfrew et al. 2014; Rhodes 2014; Robins 2008).

Having an enabling environment

Midwifery educators perceived that it was often beyond their control to change the institution and health system factors which prevented them to improve teaching. The TPB suggests that even though intention is the proximal cause of behaviour, a facilitating environment must also be present in order for the behaviour to be realized (Webb & Sheeran 2006). In many LMIC, there are institutional and health system factors which prevent midwifery educators to improve midwifery teaching. These barriers include a limited quantity and quality of skilled and motivated midwifery workforce (UNFPA 2014; UNFPA WHO ICM 2014), a lack of necessary infrastructure to access contemporary research evidence and inadequate supply of teaching resources and simulation aids. In my review of capacity building approaches to build educator capacity, it was found that in addition to clinical and pedagogical updates, it is useful to support midwifery educators in LMIC to improve their computer literacy as well as encourage education institutions to improve IT infrastructure before the capacity building process begins (West 2015).

The midwifery educators in PNG did not have access to online journals or international midwifery policy documents. This seemed to constrain the ability of the educators to improve teaching and provide students an evidence based education in-line with current research. Research supporting the use of a social cognition theoretical framework to engender evidence-based behaviour change includes an evaluation of the IMPLEMENT intervention (French et al. 2012). This study examined changing general practitioners' non-evidence based behaviour of ordering plain x-ray film to exclude fracture in patients with lower-back pain. The findings report that when choosing target behaviours, providing individuals with strong supporting evidence increases the likelihood of actual behaviour change (French et al. 2012). It may therefore be advantageous to improve infrastructure and provide training which enables midwifery educators to access current research evidence.

In order to assist midwives to feel supported in the workplace, my study has identified that it was essential that clinical midwives in the practicum sites facilitate student learning in a manner consistent with the midwifery educators. In PNG, like other LMIC, student supervision in the clinical practicum area is often performed by the clinical midwives. There is often a lack of in-service education or continuing professional development opportunities in the clinical area however, which can mean that the clinicians and educators have different levels of clinical and theoretical knowledge and skills. In this study, this has found to create a tension between clinicians, students and educators. Concurrent strengthening of midwifery regulatory and professional association bodies can help to reduce the theory-practice gap and help to provide consistency between teaching and practice

(International Confederation of Midwives 2011). A well-functioning midwifery regulatory body would ensure that midwifery scope of practice and requirements for continuing professional development are maintained and aligned with national and international standards. The ICM and other leaders in midwifery recommend that strengthening midwifery regulation and association alongside midwifery education is an effective strategy to ensure a quality midwifery workforce (International Confederation of Midwives 2015; Lopes et al. 2016).

Having a clearer understanding of the midwifery educator's attitude, the degree in which social pressure influences behaviour and the level of perceived behaviour control may allow the capacity building process to be planned and implemented with attention to these aspects. Individuals and organisations providing support to midwifery educators in LMIC would be better able to contextualize the individual preparation, partnership and environment accordingly. This may help to ensure that the maximum benefit for both international and national educators is achieved within the scope of the capacity building initiative.

Discussion of Phase 2 findings

The objectives of Phase 2 were to:

- Describe the experiences of national and international midwifery educators when working together in a capacity building program in a LMIC; and,
- Determine whether the conceptual understandings developed in Phase 1 have resonance in a broader sample.

All the themes emerging from the analysis of the Phase 1 data were also apparent in the Phase 2 data analysis. Specifically, the enabling factors of building effective relationships, adapting personally and professionally to the context and identifying individual capabilities and motivations were found to be consistent. In addition, having a mutual understanding of the capacity building process, being prepared for working in partnership and having an enabling environment were also identified as challenging factors.

Working together collaboratively was valued by participants in both phases of the study. This approach to improving midwifery teaching enabled the national educators to have positive role models in the workplace, help manage their workload and provide physical assistance to implement different clinical practice or teaching methods. International educators valued the guidance from their national colleagues to be culturally competent and gained an understanding of how the

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institution, society and health system influenced their role to strengthen midwifery education. Both international and national educators reported that working side-by-side enabled instant feedback which was encouraging and improved confidence. The long term nature of the capacity building projects were highlighted as valuable to build relationships and enabled a deeper understanding of the context.

National educators valued the culturally sensitive interpersonal and professional skills of international educators and appreciated their ability to adapt to the context, by modifying interventions and their expectations concerning what could be realistically achieved in a resource poor context.

As in Phase 1, midwifery educators, despite having experience as teachers and/or clinicians did not always feel prepared to work together in a capacity building partnership. This finding in Phase 2 is particularly relevant to the national educators who felt less prepared than their international counterparts. Participants in Phase 2 were employed by a variety of teaching institutions, government and non-government organisations and the responses were consistent across the sample. Having pre-requisite clinical and teaching skills, a clear job description and indicators on which to assess improvement were identified in both phases as important and were strategies perceived to enable more successful transfer of knowledge during the partnership.

It was noteworthy that participants in Phase 2 came from a diverse range of LMIC contexts and they reported similar challenges within the sample and to Phase 1 participants related to factors in their institutional or external environment. Workforce shortages, lack of teaching resources and a poorly functioning professional midwifery regulatory body created challenges for the midwifery educators to improve teaching.

Findings specific to Phase 2 were related to culture (cultural competence in south-south collaborations, understanding each other's culture, additional cultural knowledge perceived to be useful), individual motivations to improve midwifery teaching other than improving the health of women and newborns, perceptions regarding working together using a mutually developed work plan, and views on self-assessment against international competencies.

More international than national educators stated that they understood their colleague's culture and perceived that having additional information specific to their colleague's cultural dimensions (Hofstede 2001) would be useful to increase their understanding. A number of participants were working in south-south collaborations between African countries of similar low or lower-middle

income status. These types of collaborations have shown to be successful as there are often greater understandings of language and other aspects of culture (Boshoff 2010). However, it was found in Phase 2 of this study that despite the regional collaborations between African countries, educators still perceived that they lacked an understanding of each other's culture. Therefore, during the preparation of capacity building programs in both north-south and south-south collaborations differences in culture should be considered. It has been found that including training in cultural competence for all individuals engaged in international partnerships is likely to increase the quality of health care within culturally diverse countries (Cushman et al. 2015; DeSouza 2008; Reimann et al. 2004). Research into a south-south collaboration in Africa to strengthen an education institution's capacity in establishing a competency based social and behaviour change programme identified that understanding the local context is critical to sustainability and approaches to behaviour change must consider the cultural norms and context (Christofides et al. 2013). In research assessing the learning experiences of international development volunteers, it was found that cultural insights triggered deep personal transformation, encouraged self-reflection, challenged assumptions and led to significant behaviour change (Fee, Gray & Lu 2013). These insights highlighted the importance of including preparatory training on cultural competence for both national and international educators involved in capacity building partnerships and ongoing monitoring to evaluate progress made in this area.

The motivating factor of wanting to improve the health status of women and newborns identified in Phase 1 was reiterated in Phase 2 findings and in addition, other motivating factors to improve midwifery teaching were identified. These additional motivating factors were related to having documented goals, roles and responsibilities and a clearer understanding of the outcomes of improving midwifery teaching. Participants perceived that gaining confidence with conquering more basic concepts and skills before advancing to more advanced learning would also be motivating. It was identified in the study that the mutual development of a work plan to document the motivating goals, roles, responsibilities and measurement of outcomes would be a useful strategy to guide the capacity building partnership. These findings are consistent with the literature which indicates that a longer term approach to capacity building is more effective than shorter projects (West et al 2015) and that sustained interaction between international and national colleagues was more likely to enable behaviour change (Fee, Gray & Lu 2013).

The findings from Phase 1 and Phase 2 indicate that there are three overarching factors which may enable or constrain efforts to build capacity in midwifery teaching in LMIC. These factors are related

to the individual, the partnership and the environment and can influence how midwifery educators improve teaching and learning. This finding is consistent with international development literature which states that the *"…development of knowledge, skills, commitment, structures, systems and leadership … involves actions to improve health at three levels:*

The advancement of knowledge and skills among practitioners;

The expansion of support and infrastructure … in organizations, and;

The development of cohesiveness and partnerships (World Health Organization 1998, p.1).

Viewing the findings under these three headings can enable a simplified model to strengthen midwifery teaching and learning in LMIC to be depicted. This model may resonate with the individual midwifery educators, the institutions or organisations who employ them and the health system administrators who have a role in strengthening midwifery teaching and learning in LMIC. The model is displayed in Figure 4 and shows concentric circles and key factors in the environment, partnership and individual which if addressed may lead to improved midwifery teaching and learning.

Figure 4: Model to strengthen midwifery teaching and learning in LMIC

It is proposed that the strategies identified in this study which have been informed by the findings and related literature can be used practically at all three levels to improve the efficacy of international midwifery collaborative efforts, thus improving teaching and learning and the quality of

midwifery care provided to women and their children in LMIC. Practical examples of strategies which may be used to address these three key factors have been drawn from the findings of my study and other research literature and are provided below in Table 16.

Table 16: Examples of strategies and expected outcomes

Variable	How to address it	Expected outcome
Know current capabilities (knowledge, skills and behaviour)	Self-assessment against competency standards for midwifery educators	Baseline data available for monitoring performance which is useful for ongoing performance appraisal (International Confederation of Midwives 2011) Personal insight gained into current and expected capabilities (Ajzen 1991; Bandura 2004; Gardner et al. 2010)
	Job description with clear roles and responsibilities	Increased individual understanding of expectations and accountability (Fee, McGrath-Champ & Yang 2011)
Plan to strengthen individual capabilities	Individualized professional development plan built into capacity building program	Creates mid-term and end point evaluation data enabling revision where needed Enables targeted and specific approach to building individual capacity (Fee, McGrath-Champ & Yang 2011)
Identify motivations for improving midwifery teaching and learning	Facilitate educators to identify their personal motivations for improving teaching and learning	Can assist individuals to associate their motivations to their behavior (Bandura 2004; Fee, Gray & Lu 2013; Fee, McGrath-Champ & Yang 2011)
	Examine context specific health indicators and link improved teaching to improved outcomes	Can help individuals to have realistic and context specific motivations which are translate into behaviour that improves performance and outcomes (Bandura 2004; Fee, Gray & Lu 2013; Viano, Holbrook & Rannikmae 2012; Wright et al. 2005)
Address change management	Introduce a social cognition theory of behaviour change to the individuals involved in international partnerships Provide examples of behaviour change techniques	Enable educators to understand the psychology of how to facilitate change and have practical skills in which to do that (Christofides et al. 2013; Michie et al. 2008; Michie et al. 2013)
Build relationships	National and/or regional collaboration between education institutions and individuals	Shared goals and mutual understanding creates opportunity for sharing resources and strengthening systems (Fee, Gray & Lu 2013; Usher et al 2012)

Variable	How to address it	Expected outcome
	Longer term approach to capacity building with consistent in-country presence or frequent repeated presence of same person	Provides opportunities for building stronger relationships by strengthening understanding of culture and context. Once a positive relationship is built the transfer of learning by role modelling is more effective (Fee, Gray & Lu 2013; Lasker 2016; Maclean 2011; UNFPA WHO ICM 2014; Usher et al 2012; West et al 2015; World Health Organization 2015c)
Have a mutual understanding	Develop work plan together with agreed timeline, goals, outcomes and performance indicators	Engaging stakeholders in the preparation of the program encourages ownership, accountability and sustainability (Boshoff 2010; Fee, Gray & Lu 2013; Labonte & Laverack 2001; Liberato et al. 2011; Maclean 2013; Rumsey et al. 2016; United Nations Development Program 2009; Wright et al. 2005)
Be able to adapt to a different culture	Cultural competence training for both international and national educators (e.g.: theory of cultural dimensions)	Preparation to work together by creating a mutual understanding of cultural dimensions (Fee, Gray & Lu 2013; Hofstede 2001; Rumsey et al. 2016)
	Address different cultural learning styles and preferred methods of sharing knowledge which are relevant to the context and individual	Enables different ways of teaching and learning to be incorporated into capacity building program which builds on existing knowledge (Girot & Enders 2003; Rhodes 2014; Rhodes & Rumsey 2016; Rumsey et al. 2016b; Truong et al 2014; Uys & Middleton 2011; Wright et al. 2005)
	Language instruction to ensure both individuals have technical competence in a mutual language	Effective communication relies on being able to send and receive messages verbally and in writing (Brodie 2013; Evans, Razia & Cook 2013; Herberg 2005; Wright et al. 2005)
	Assess individual assessment against a cultural competency tool (e.g.: IAPCC-R)	Baseline data is available for comparison during ongoing monitoring and evaluation (Campinha-Bacote 2009; Fee, McGrath-Champ & Yang 2011; Loftin et al. 2013; Noble et al 2009)
Institutional governance	Adequate national midwifery education workforce to work in partnership with international educators	Enables international educators to work in partnership with national educators to build capacity and not used as replacement workforce (Bogren, Wiseman & Berg 2012; Frenk et al. 2010; Fullerton et al. 2011; Pons et al 2002;The RESPOND Project 2012)
	Provide physical teaching and learning resources	Having internet access, research journal subscription, computer skills, enables access to evidence. Clinical teaching laboratory with simulation equipment enables practice of clinical skills and clinical teaching in a safe simulated

Variable	How to address it	Expected outcome
		environment which builds confidence (Pons et al 2002, UNFPA WHO ICM 2014)
Consistent clinical teaching	Strengthen structures which support the improved knowledge, skills and attitude of clinicians in clinical placement sites	Enables clinician understanding of the curriculum and competency based assessment (Fullerton et al. 2011; Pons et al 2002; The RESPOND Project 2012) Creates collegial and supportive environment in the clinical placement sites and enables the clinicians to more confidently support clinical learning (Voetagbe et al 2010)
	Strengthen midwifery regulatory body	Regulates quality of midwifery workforce, both clinicians and educators (Dawson et al. 2014; Dawson et al 2015; Lavender et al. 2009; ICM 2011)
Leadership and management skills	Advocate for improved resources and status of the midwifery profession by engaging with Midwifery professional associations and community groups	Improved visibility and stakeholder advocacy for the midwifery educator's role in supporting a quality midwifery workforce (Dawson et al 2015; Frenk et al. 2010)
	Multi-stakeholder engagement with MoH and partners working in MNCH by being represented on university board, steering committees, MoH meetings, international NGO forums and donor meetings	Enables a system wide approach to improving midwifery education by sharing information and encouraging consistency in all areas of the health system (planning, policy, and implementation) (Fullerton et al. 2011; World Health Organization 2016b; Wright et al 2005)

Model to strengthen midwifery teaching and learning in LMIC

The following section has organised the factors which may enable midwifery educators to strengthen midwifery teaching and learning under three headings of Individual, Partnership and Environment. This has been done for ease of reading but it should be noted that they are not in order of priority. In practice, these factors are complex and interrelated and some will need to be addressed concurrently or perhaps sequentially and not all factors may be applicable to every context.

Managing the individual factors

By using the TPB as a lens through which to view the research findings, it is possible to understand which individual variables influencing behaviour are associated with improved midwifery teaching and would benefit from being strengthened (Hardeman et al. 2002; Michie et al. 2008). In addition,

variables which constrained behaviour can also be identified. The notion of 'improved' midwifery teaching behaviour in the context of this research refers to the process of adopting contemporary pedagogical methods in the classroom and applying current midwifery research evidence.

An analysis of the overall findings indicated that four individual factors may enable midwifery educators to improve teaching and learning. These include:

- Know current individual capabilities
- Plan to strengthen individual capabilities
- Identify motivations
- Address change management

My study has identified that knowing individual capabilities is an enabling factor to be able to improve midwifery teaching. This finding has been confirmed in other research in the international development field which found that drawing international development workers attention to their own viewpoint enabled transformative learning and behaviour change (Fee, Gray & Lu 2013; Perry & Southwell 2011). It has been suggested that performance evaluation has both an evaluative and developmental role and that in addition to technical skills, dimensions such as attitude and communication are useful to assess before and during international engagement (Fee, McGrath-Champ & Yang 2011). In human psychology literature, Bandura (2004) has found that self-belief and self-efficacy are linked to awareness of goals and outcomes and are strong motivators for personal change.

The TPB has been used to understand and predict behaviour but has rarely been used to design behaviour change interventions (Michie et al. 2008). It is proposed that after identifying the factor that predicts behaviour, that specific factor should then be the target for creating behaviour change but the TPB does not specify what techniques to use in order to achieve this (Ajzen 1991). Identifying techniques could be useful during the international partnership to facilitate the desired individual behaviours necessary to improve midwifery teaching and learning in LMIC (Gardner et al. 2010). One method used to identify behaviour change techniques is described as the Behaviour Change Taxonomy (BCT) (Michie et al. 2013).

The BCT taxonomy was developed in a Delphi-type exercise by experts in the fields of psychology, social cognition and health science (Michie et al. 2013). Effective BCT were categorized hierarchically by effectiveness in order to provide some consistency in implementation and reporting. The

techniques deemed to be effective and also identified in the results of my study included; repetition and substitution, natural consequences, feedback and monitoring, goals and planning, social support, comparison of behaviour, self-belief and comparison of outcomes (Michie et al. 2013).

For example, in my study, midwifery educators agreed that having a specific goal to work towards and having written roles and responsibilities would enable them to improve teaching. This finding is confirmed in the BCT taxonomy which suggests that action planning and goal setting are effective techniques to encourage that desired behaviour (Michie et al. 2013). Behaviour change techniques have been used extensively in the field of health, psychology and education to support lifestyle changes or improve professional behaviour and could also be considered useful to prepare individuals working in the cross-cultural partnership (Michie, Haines & Donald 2005). International development research suggests that performance evaluation and training are closely linked and that there is more financial viability conducting technical training prior to deployment with more targeted training occurring in-country in collaboration with local stakeholders (Fee, McGrath-Champ & Yang 2011).

In both phases of this study being aware of their personal motivations for improving teaching enabled midwifery educators to improve their teaching capacity. This is similar to a study of the professional behaviour change in health care educators (Godin et al. 2008; Viano, Holbrook & Rannikmae 2012; Webb & Sheeran 2006). For example, it was found that positive behaviour seems to be encouraged if individuals are facilitated to identify their motivations for performing the desired behaviour. Motivations have also been identified as contributing to a clear role definition (Dawson & Homer 2013) and having realistic motivations in international development related to making a contribution, personal development and building relationships were identified as enabling improved performance (Hunt 2009).

Working well with others and creating and managing change are skills that have been identified in international development workers as reflective of deep self, cultural and situational awareness (Fee & Gray 2013). In light of this and the findings in my study, it may be useful in the program design to consider supporting international and national educators to attain these higher order skills. Implementation researchers have identified that using behavioural change theory can help to predict and implement positive behaviour (Cote et al. 2011; Michie, Haines & Donald 2005; Viano, Holbrook & Rannikmae 2012; Webb & Sheeran 2006). The TPB or other behaviour change model could therefore be introduced to international and national educators to introduce them to theoretical concepts of behaviour change which would better prepare them for working together.

Addressing partnership factors

In order to strengthen capacity building efforts, this study found that it was essential for international and national educators to have an effective interpersonal relationship. In the preparatory phase of the capacity building project, addressing the factors that enable a collaborative partnership may assist the individuals to work together. An analysis of the overall findings indicated that three factors may enable midwifery educators and these include:

- Have a mutual understanding
- Build relationships
- Be able to adapt to a different culture

During the recruitment of international educators, the employer can consider the many advanced skills that are required to work in partnership in LMIC. During the preparation for the capacity building program, steps can then be taken on an individual level to strengthen capabilities in understanding the goals of the project, building relationships and adapting to cultural differences. It may be more difficult in a LMIC with a lack of midwifery workforce to selectively recruit educators with an existing advanced skill set but by working together, additional capabilities can be identified and methods for strengthening these can be incorporated into the work plan. Addressing individual learning needs before and during the partnership has been found to contribute to individuals feeling empowered as they feel there is an equal contribution to the capacity building process (Boshoff 2010). Having a work plan can enable mutual understanding through the collaborative development and documentation of goals, indicators and feedback mechanisms. Receiving feedback on performance is lacking in some international development programs, despite the established research into workplace learning highlighting the benefit of this strategy to support behaviour change (Fee, Gray & Lu 2013). Strengthening the feedback mechanisms for both international and national educators would therefore be a useful strategy to improve teaching and learning.

Engaging in the initial planning of the capacity building process and sharing the responsibility of program development is necessary to ensure local ownership and engagement (Labonte & Laverack 2001; Liberato et al. 2011; Maclean 2013; United Nations Development Program 2009). Including all stakeholders has been found to be beneficial during leadership training to build relationships and helps individuals feel more prepared for working in a cross-cultural partnership (Rumsey et al. 2016). Including a combination of measurable qualitative, quantitative and team goals has been suggested as important to include important contextual factors which can improve performance (Fee, McGrath-

Champ & Yang 2011). A review of international collaborations found that during research collaboration between countries in the global north and south, there was inequality of contribution to authorship, which was partly due to the majority of research being conceptualized and designed by 'northern' partners and only implemented by partners in the south (Boshoff 2010).

My study found that the international educator's adaptation to the host culture involved an adjustment to the general environment, communication styles and working conditions. If an international educator is adjusted in these three areas, they seem more likely to function effectively and without lasting psychological stress (Maclean 2013; Van Vianen et al. 2004). Information for international expatriates regarding the cultural dimensions and social norms of the host country are often included in orientation programs to prepare them for overseas work which can help them transition more easily to working in an unfamiliar environment (Rhodes 2014; United Nations Development Program 2009). Cultural competence has been identified as a key factor contributing to the success of cross cultural partnerships (Rhodes 2014; United Nations Development Program 2009; Van Vianen et al. 2004) and more research is needed from the perspective of the individuals in the host country to determine what is specifically required to prepare them to work with international colleagues.

The provision of health care by culturally competent nurses and midwives has been reported to increase quality of patient care and improve population health outcomes (Beach et al. 2005; Callister 2001). One of the reasons for this is that communication between individuals who are sensitive to each other's cultural differences are better able to give and receive information in an acceptable, meaningful way. When messages are better understood and are culturally relevant, the target audience is more likely to be receptive, compliant and satisfied with their care (Beach et al. 2005; Callister 2001; Coast et al. 2014; Cushman et al. 2015). Less has been written about cultural competence between health care providers working in international partnerships but similar principles could be applied to the relationship between midwifery educators as has been applied to the health care provider and consumer relationship. In order for colleagues from different cultural backgrounds to fully engage in collaborative partnerships and communicate effectively, it is important to have an understanding of each other's cultural diversity (Dawson et al. 2014; Maclean 2013; Rhodes 2014), and demonstrate appropriate behaviours and attitudes, thus improving quality of care (Noble, Noble & Hand 2009).

Continuing education courses in cultural diversity have been found to improve cultural competence scores in health care professionals when assessed against the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC_R) (Noble, Noble & Hand 2009). The tool is widely used internationally and has proven reliability and validity and is a self-administered questionnaire which assesses five constructs of; cultural awareness, skill, knowledge, encounters and desire (Campinha-Bacote 2009). Given the need to address cultural competence in an increasing global healthcare environment, other tools measuring cultural competence in nurses have been reviewed in efforts to provide some standardized approach to prepare healthcare professionals for working in a cross-cultural environment (Loftin et al. 2013). It has been acknowledged that there are some limitations in the various tools currently in use, such as being self-administered, requiring an advanced English reading level or lacking a theoretical basis (Loftin et al. 2013). Further research using a tool for assessing cultural competence in midwifery educators involved in international partnerships could be useful to provide organisations and individuals with measurable indicators for what to include in preparatory and ongoing training and evaluation.

Addressing environmental factors

The TPB states that even though intention is the proximal cause of behaviour, a facilitating environment must also be present in order for the behaviour to be realized (Webb & Sheeran 2006). In my study, the individual's perceived behavioural control to improve midwifery teaching was found to be influenced by environmental factors both within and external to the education institution.

Three factors in the environment were identified. These included:

- Institutional governance to ensure adequate workforce and resources
- Consistent clinical teaching
- Leadership and management skills

Working in international partnerships, national educators who were overworked in an environment with a lack of midwifery workforce and resources felt constrained to improve their own knowledge and skills in addition to supporting their international educator colleague negotiate the context. In other studies and documents, adequate resources has been identified as a key factor supporting the provision of quality midwifery care (UNFPA 2014; World Health Organization 2015a, 2016d) and international partnerships (Fee, Gray & Lu 2013). These findings imply that strategies to reduce the environmental constraints experienced by midwifery educators should be considered parallel to the strengthening of individual capacity.

The most recent report on the state of midwifery in the most vulnerable LMIC revealed insufficient quantity and quality of skilled and motivated midwifery workforce and this affects the midwifery educator's ability to implement improved teaching (UNFPA WHO ICM 2014). In a review of capacity building approaches to build educator capacity, it was considered that in addition to clinical and pedagogical skill updates, it would be helpful for individual educators in LMIC to be supported to improve their computer literacy and education institutions encouraged to improve IT infrastructure (West 2015). Attending to these factors before the capacity building process begins would enable international educators to assist their national counterparts to access and utilize evidence based midwifery research to update curriculum and practice and may support the generation of local research.

In order for midwifery educators to improve the quality of teaching and learning, my study identified that it was essential for clinical midwives in the practicum sites to facilitate student learning in a way that was consistent with the midwifery educators from institutions. The established hierarchy in the clinical practicum sites combined with the feeling of not belonging to the clinical team also were factors perceived as constraining the educators who felt that it was not their role to provide feedback to correct clinicians practice.

In many LMIC, there is reduced opportunity for clinicians to participate in continuing professional development (UNFPA WHO ICM 2014; World Health Organization 2015d). The subsequent knowledge and/or skill gap between clinicians and educators can create tension and educators can lack self-efficacy to improve midwifery teaching when the students are receiving conflicting messages from the clinicians, there are no formal agreements on roles and responsibilities and competing professional interests (McAllister & Flynn 2016). There has been similar findings in other research which has found improved collaboration between clinical practicum sites and education institutions when staff have co-appointed positions enabling educators to work part time in clinical roles and clinicians to be guest lecturers in the education institution (Boyd & Lawley 2009; Johnsen et al. 2002; McAllister, Oprescu & Jones 2014).

Concurrent strengthening of midwifery regulatory bodies and professional associations may be a solution to reduce the theory-practice gap and help to provide consistency between teaching and practice (Brodie 2013; International Confederation of Midwives 2013, 2015). A well-functioning midwifery regulatory body would also help to ensure that midwifery scope of practice and

requirements for continuing professional development are maintained and aligned with national and international standards (Brodie 2013; International Confederation of Midwives 2013, 2015).

In my study, midwifery educators did not always feel able to negotiate with government officials and donor agencies to advocate for increased resources for midwifery education. It has been reported that improved leadership and management skills can enable midwives to feel more confident in an advocate role, speak at national and international level meetings which contributes to improving the quality of the midwifery workforce (Lacey-Haun & Whitehead 2009).

Limitations

All research has limitations and cross-cultural research has a number of particular challenges.

In Phase 1, a possible limitation is related to the participant selection. For security, logistical and financial reasons, it was not possible to travel throughout PNG to interview midwifery educators in their home institution. Therefore educators were interviewed when they convened in a central location for a midwifery education workshop. Being in a workshop environment may have predisposed the educators to be more focused on the workshop content and have increased fatigue which may have affected their responses. However, there is no way to check this assumption.

Using a single site may have limited the generalizability of the results from Phase 1 to other contexts. This was addressed in this study by including other sites in Phase 2 in order to explore the transferability of the findings.

I am a former educator and my primary academic supervisor is the former director of the PNG Maternal and Child Health Initiative which may have influenced the participants and their responses during recruitment and data collection. It was made explicit in the participant information sheet and verbally during interview that their responses would be de-identified and confidential. The participants were also reminded that I was conducting research as a PhD student and I was no longer employed by the PNG Maternal and Child Health Initiative and had no influence over their current employment.

Another limitation is related to using only qualitative methods. Although this method allowed the research question to be answered, the findings may have been strengthened by adding a quantitative component which would have made this difficult. The findings from this qualitative study were however used to inform the development of data collection instruments for the next phase of the

study to explore transferability of findings to a broader context. This is typical of a sequential exploratory mixed method research design (Creswell 2013; Yin 2009).

The first possible limitation in Phase 2 is related to the accessibility of the survey. The survey was only conducted in English language and available through an online web-based survey application. This limited the participant involvement to those educators who could read and write English and had access to internet. The response rate of 36% for national educators and 55% for international educators may reflect this. Participants were recruited through the World Health Organization Collaborating Centre for Nursing and Midwifery Global Network and the Global Alliance of Nursing and Midwifery and even though these networks are extensive, there may have been midwifery educators working in international partnerships that are not connected to these networks.

Participants who were generally satisfied with their experiences working to strengthen midwifery teaching may have been predisposed to respond to the survey which may have also been a limitation. No incentive was offered for completion of the survey which may have also lowered the response rate but it has been stated that response rate is not predictable and may not have improved if an incentive was offered (Marshall et al. 2013; Mason 2010).

Participants were self-identified as midwifery educators and that term does not imply consistency in the sample regarding length and quality of education and experience in an education role. It may therefore be a limitation that each participant's perceptions of what it means to be an 'educator' varies. This however, is the current reality of the midwifery educator workforce globally and there are variations in the duration and content of midwifery educator training within low and high income countries and regions (UNFPA WHO ICM 2014). Self-reported data may not always be accurate and is influenced by many factors including professional experience and cultural background. In the survey, data relating to professional background and country of birth were collected in order to see if there were correlations between these variables.

Participants were excluded from the sample if they had worked less than three continuous months in an international partnership. This may be a limitation of the study as educators who have worked frequent shorter periods over a long period of time may have also experienced similar enabling and constraining factors as those educators who have spent longer than three months.

The data collection tool used in Phase 2 of this study was not validated previously for reliability and validity and it may be possible that the tool did not measure what it was intended for it to measure.

Despite no prior validation, the findings were correlated with Phase 1 findings and consistently answered the research question.

Further research in non-English speaking contexts would be useful to determine if the findings are transferable to more diverse contexts. It would also be useful to test the model suggested in my study in an existing longer-term international partnership and explore the applicability of using the TPB and BCT to improve the international partnership and subsequent midwifery teaching and learning.

Conclusion

This study examined the factors that influence the ability of midwives in LMIC to building capacity in teaching and learning in LMIC settings. The findings show that the TPB behaviour domains can help to explain the attitudes, intentions and behaviours of the midwifery educators. This provides important insight into the factors that can act as precedents to actual behaviour change and the uptake of evidence based practice. It was found that a midwifery educator's knowledge, skills, self-efficacy and intention had positive effects on their perceived ability to improve teaching. It is expected that if organisations know how individuals are motivated to perform a desired behaviour, then preparations for recruitment, training and professional support can be implemented accordingly. These insights could assist in the planning phase of capacity building programs to ensure recruitment training and ongoing support of midwifery educators can strengthen the enabling factors and mitigate the constraining factors.

The findings of this research show that whether an educator is able to display improved teaching may be dependent on that individual's attitude, the influence of others in the society and whether they feel they have self-efficacy. These three factors have been labelled as variables in the social cognition literature as attitude, subjective norms and perceived behavioural control and are represented in the TPB as precursors for behaviour (Ajzen 1991). Social cognition theories may therefore be useful to explain an individual's intention to adopt certain behaviours and can also predict future behaviour. In addition to identifying positive links between intention and behaviour, the TPB can also identify variables which do not promote or encourage the behaviour. This can be useful to identify the barriers for behaviour change.

If the behavioural, normative and control beliefs inherent in providing improved teaching in LMIC are addressed initially in the preparatory phase and continued to be monitored over the lifecycle of the capacity building project, it is anticipated that midwifery educators would be better enabled to improve midwifery teaching. This applies to individual level factors relevant to both the international

and national educators and also at a relationship level because the quality of the relationship combined with an individual's motivation are factors shown to contribute to effective communication and knowledge exchange which enables actual behaviour.

It may also be beneficial to include explicit project management principles of stakeholder engagement into the capacity building framework to maximize the opportunity for efficient collaborative partnerships. Further research using an implementation science perspective may be useful to ensure that capacity building interventions are being translated into improved learning and teaching behaviours. This has been missing in the literature surrounding capacity building in LMIC and has been addressed in part by this research. Further research is needed to test if addressing the individual, partnership and environmental factors identified in this study results in improved midwifery teaching in LMIC.

Appendices

Appendix 1: Literature review in published format

Building midwifery educator capacity in teaching in low and lower-middle income countries. A review of the literature

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ABSTRACT

Aim and objective: midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. This paper will explore approaches used to build midwifery educator capacity in LMIC and identify evidence to inform improved outcomes for midwifery education.

Design: a structured search of bibliographic electronic databases (CINAHL, OVID, MEDLINE, PubMed) and the search engine Google Scholar was performed. It was decided to also review peer reviewed research, grey literature and descriptive papers. Papers were included in the review if they were written in English, published between 2000 and 2014 and addressed building knowledge and/or skills in teaching and/or clinical practice in midwifery educators who work in training institutions in LMIC. The Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) was used to guide the reporting process. The quality of papers was appraised in discussion with all authors. The findings sections of the research papers were analysed to identify successful elements of capacity building approaches.

Findings: eighteen (six research and 12 discursive) papers were identified as related to the topic, meeting the inclusion criteria and of sufficient quality. The findings were themed according to the key approaches used to build capacity for midwifery education. These approaches are: skill and knowledge updates associated with curriculum review, involvement in leadership, management and research training and, participation in a community of practice within regions to share resources.

Key conclusions: the study provides evidence to support the benefits of building capacity for midwifery educators. Multilevel approaches that engaged individuals and institutions in building capacity alongside an enabling environment for midwifery educators are needed but more research specific to midwifery is required.

Implications for practice: these findings provide insight into strategies that can be used by individuals, faculties and institutions providing development assistance to build midwifery educator capacity in LMIC.

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Contents

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Introduction and background

There is international consensus that midwifery care is the most cost effective solution to decreasing maternal and newborn mortality in low and lower-middle income countries (LMIC) (Renfrew et al., 2014). The ability of a midwife to demonstrate competence according to international standards (Fullerton et al., 2003; ICM, 2013) and contribute to improving outcomes for women and newborns depends on various factors. These include the quality of pre-service training, access to continuing professional development once graduated, the regulated scope of practice, and the presence of an enabling work environment (Renfrew et al., 2014).

Midwifery education has been identified as a critical component contributing to quality midwifery care (Fullerton et al., 2003; World Health Organisation, 2013; Renfrew et al., 2014). In this review, the term 'midwifery education' refers to the formal process of training midwives (ICM, 2010) which has a minimum entry level requirement of a completed secondary school education and is either a three year direct-entry or eighteen month post-nursing programme. The term 'midwifery educators' refer to the midwives who provide the education to students enrolled in a midwifery programme. Unfortunately in LMICs, the number and quality of midwifery educators is often well below what is needed which contributes to the production of midwifery graduates with inadequate technical skills and little ability to think critically (Thompson et al., 2011). The first State of the World's Midwifery Report (2011) found that, despite some promising developments in midwifery education, competency based midwifery curricula and professional development opportunities for midwifery educators in LMIC were lacking. Recommendations to build capacity for midwifery education remain on the international agenda and include a call for an increase in resources for midwifery education and supervised clinical practice for students (The State of the World's Midwifery, 2014). However, as few as 6.6% of midwifery educators in LMIC have any formal preparation in education (World Health Organisation, 2013).

In general terms, capacity building has been defined by the United Nations Development Program as 'the process through which individuals, organisations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time' (United Nations Development Program, 2009). In order to strengthen midwifery education, various approaches have been taken to build the capacity of midwifery educators (World Health Organisation, 2009; ICM, 2010; The State of the World's Midwifery, 2011). The WHO (2013) has defined a set of core competencies for midwifery educators which enable effective midwifery practice, teaching and clinical supervision, research and leadership. Global standards have been published (ICM, 2010) to assist midwifery educators develop a quality midwifery education programme and such documents are most useful when educators are supported by governments, health systems, regulatory bodies and midwifery associations to implement them (Fullerton et al., 2003). Toolkits and teaching aids (WHO, 2008; K4Health, 2014; K4Health, 2015, John Hopkins University, 2015) have also been produced in order to improve the quality of midwifery education but how they have been used in LMIC has not been well documented. The individual context and culture play a significant and important role in how capacity building interventions are developed and implemented and should not be overlooked (Maclean, 2013). Despite investment from international donors, capacity building consultants, national partners and local experts, little is known about the best way to build capacity and support midwifery educators working in institutions in LMIC. This review, therefore, aims to explore the different approaches used to build midwifery educator capacity in LMIC and identify which aspects have been successful in creating improved outcomes for midwifery education.

Method

A descriptive narrative synthesis was chosen for this integrative literature review. This method allows the findings of literature derived from qualitative and quantitative methods to be synthesised and identify gaps by extracting data and then grouping it to present common ideas or arguments (Popay et al., 2005).

Search protocol

A search of electronic bibliographic databases (CINAHL, MEDLINE, OVID, and PubMed) and websites (Google Scholar, University

Table 1
Details of inclusion and exclusion criteria.

|	Date of publication	Country	Language of publication	Cadre of health professional	Place of employment
Included	2000–2014	LMIC as defined by World Bank	English	Midwives, nurses working in an education role in reproductive health or midwifery	Midwife or nurse training institution and clinical placement site
Excluded	1999 or later	Other than LMIC	Other than English	Medical doctors, community health workers, traditional birthing attendants	Hospital, clinic or community health centre only
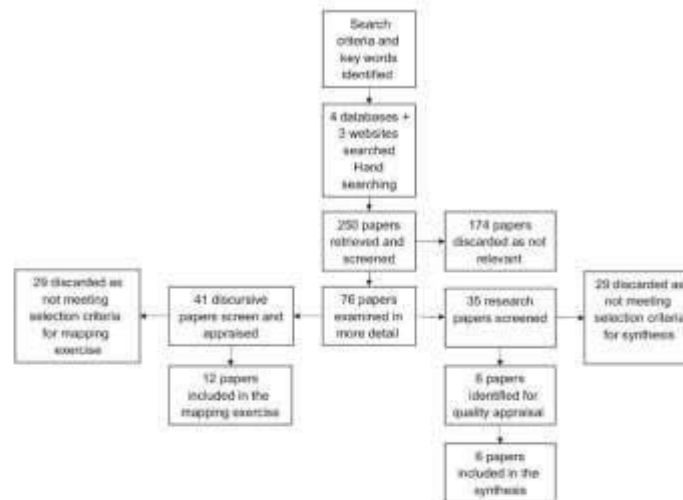
Fig. 1. Overview of the literature review process.

of Technology Sydney library site, World Health Organization, JHPEIGO, UNFPA) was undertaken. Search terms included 'midwifery education', 'midwifery educators', 'midwifery training', 'midwife', 'capacity building'. Searches were limited by year 2000–2014 and to publications in English language. Searches were limited to LMIC regions by using terms 'low resource country', 'low and middle income country', 'LMIC', 'developing country', 'third world country'. The World Bank country classification scale was used to define LMIC (World Bank, 2014). Reference lists were hand searched to identify additional relevant publications.

Papers included in this review explored capacity building from the perspective of both the national educators in LMIC (the capacity 'buildees') and the international educators (the capacity 'builders'). Due to the lack of research papers, a decision was made to examine discursive papers to provide insight into midwifery educator capacity building experiences. We therefore undertook a mapping exercise to provide insight into the context of capacity building alongside a narrative synthesis of research literature. Discursive papers were included that described and/or evaluated an approach to building skills, knowledge and a supportive environment for educators working in training institutions in LMIC. There were low numbers of midwifery-specific papers and the cadre of midwife is not recognised in all countries therefore relevant papers including nurse-midwives or nurse educators who teach maternal, child or reproductive health were also included.

Papers were excluded if approaches to building midwifery educator capacity only focused on clinical teaching sites as midwifery educators who work in institutions face different challenges than those working in the clinical setting alone. Papers involving only medical officers or untrained community midwives were also excluded. Details of inclusion and exclusion criteria for synthesis are included in Table 1.

Study selection and quality appraisal

Initial searching using key words retrieved 250 papers and the titles were read. Of these, 174 papers were removed as they were not relevant to the review question or study focus. The remaining 76 retrieved titles and abstracts were screened and examined in more detail for possible inclusion. Thirty-five research papers were screened and 41 discursive papers screened and appraised for

possible inclusion. Twenty-nine research papers and 29 discursive papers were further discarded as they did not meet the selection criteria leaving six research and 12 discursive papers remaining.

The quality of the six research papers was evaluated using either the Critical Appraisal Skills Program (CASP) tool for qualitative research (NHS, 2006) or the Critical Review Form for quantitative studies (Law et al., 1998). The 12 discursive papers were assessed using the Authority, Accuracy, Coverage, Objectivity, Date, Significance (AACODS) checklist which is designed to enable evaluation and critical appraisal of grey literature (Tyndall, 2010). The 18 papers (six research and 12 discursive) were all determined to be of high quality and were included in the mapping exercise and analysis. An overview of the literature review process is displayed in Fig. 1 using the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) flow diagram.

Data abstraction and synthesis

In total, 18 papers were selected, six research papers and 12 discursive papers and these groups were analysed separately (Fig. 1). A narrative synthesis approach was used to critique the study characteristics, context and quality (Lucas et al., 2007) of the research papers and draw conclusions based on the similarities and differences found across papers. The characteristics of the research papers are outlined in Table 2 identifying relationships and themes across and within the papers. The discursive papers were examined and described under each of these themes to provide context for the research.

Findings

The majority of papers included in this review come from Africa (n=9) with others included from South America (n=2), South East Asia (n=2), Central Asia (n=2), Balkans (n=1), South Pacific (n=1) and South Asia (n=1) with notable knowledge gaps in Central America and coverage across all regions. Three papers focused on nursing only, five papers midwifery only and ten papers a combination of nurse-midwifery that may reflect education programs prioritising the attainment of nursing qualifications over midwifery training. The papers described approaches to building educator capacity to improve teaching and practice across

Table 2

Characteristics of research and discursive papers.

Reference	Country	Research methodology	Sample/participants	Midwifery	Nurse-Midwifery	Nursing	Aims/Objectives	Interventions	Findings
Akinde et al. (2010)	Nigeria	Mixed qualitative interviews and quantitative surveys	Faculty from six midwifery training schools. Midwifery instructors from all 70 schools in Nigeria. 149 midwifery graduates.	✓			To examine the impact of a national intervention that took place between 2003 and 2006 to improve the postabortion care (PAC) content of midwifery education in Nigeria	Curriculum review to include PAC content and training to improve teaching capacity and clinical skills in PAC. International NGO collaborated with national partners. In-country regional training of trainers model and supervisory visits to ensure quality of mentorship.	Incorporation of PAC content into curriculum, clinical skill development and adult education strategies. Significant improvements in midwifery educators knowledge of and exposure to PAC and using manual vacuum aspiration (MVA).
Amaral et al. (2012)	Brazil	Mixed qualitative interviews and quantitative surveys to self-rate knowledge and importance of curriculum topics, knowledge, skills and competence	98 faculty who participated in the Health Professional Educator (HPE) degree programme from faculties of medicine, pharmacy, nursing and dentistry from 2007–2010 classes.			✓	To study the national leadership faculty development programme in HPE in Brazil	The program focused on leadership and management skills and teaching methodologies. Delivered by residential schools and distance learning modules and implementation of an educational innovation project	Increased number of candidates, broadening reach of the programme, changes in knowledge and skills, indications of field leadership in HPE, scholarly products, presentations, education conferences and national, regional or local level meetings, progress towards a critical mass of health professions educators
Evans et al. (2013)	India	Discursive	Faculty from six schools in Andhra Pradesh, India. (four public and two autonomous).		✓		Strengthen the capability and capacity of nursing faculty within the state of Andhra Pradesh	Faculty from School of Nursing, Midwifery and Physiotherapy (SNMP) at University of Nottingham UK provided development courses to faculty from Government College of Nursing Hyderabad (GCNH) using a train-the-trainer model	Conference in Hyderabad, planning and leadership workshop for faculty. Delivery of two modules by SNMP faculty in Hyderabad, six faculty from GCNH visit the SNMP, two further modules developed by SNMP delivered in Hyderabad
Fullerton et al. (2011)	Ghana, Ethiopia, Malawi	Discursive	Informants at donor, government and policy-making levels, representatives of collaborating and supporting agencies, midwives and students in education programmes and midwives in clinical practice.	✓			To stimulate discussion about issues that must be carefully considered in the context of midwifery educational programming and the expansion of the midwifery workforce.	Review of pre-service midwifery education curriculum in Ghana, Ethiopia and Malawi	Issues related to pathways to midwifery, student recruitment and admission, curricula, academic teaching and clinical mentorship capacity, programme accreditation, regulation and assessment of continued competence were discussed
Girot and Enders (2003)	Brazil	Discursive	Bristol (UK) and Natal (Brazil) health faculties.		✓		To strengthen education and training for obstetric nurses. Introduce in-house post-graduate specialisation programme for obstetric nurses to be nurse-midwives using the principles of Safe Motherhood	Link coordinators from each country maintained the focus and continuity of the project to deliver a pilot training programme to qualify 15 Brazilian obstetric nurses as nurse-midwives. Regular exchange visits between the countries and engagement with the medical staff and service users to ensure acceptability of the new role of nurse-midwife.	Key qualities identified are effective communication, deep commitment and the need for both partners to understand each other's context of care

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Table 2 (continued)

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Reference	Country	Research methodology	Sample/participants	Midwifery	Nurse-Midwifery	Nursing	Aims/Objectives	Interventions	Findings
Johnson et al. (2007)	Eritrea	Discursive	Collaboration between Stony Brook University and University of Asmara Eritrea. 10 post graduate nursing students.		✓		To prepare post graduate nursing students for an advanced practice and faculty role with Masters level qualifications in specialties including midwifery	Review of faculty and student experience completing the distance education model	All students successfully completed the programme and are now contributing as educators at University of Asmara
Lacey-Haun and White-head (2009)	South Africa	Discursive	From the University of the Western Cape, South Africa Nursing Faculty. 12 department chairs in the first 12 month of the programme and 11 department chairs in the second 12 months of the programme.			✓	To evaluate the modification of an American model of academic leadership training for utilisation in an African university and to pilot test the efficacy of the resulting model.	Collaboration to revise and pilot test an academic leadership programme for faculty	Leadership programme was successfully modified, faculty participated in training activities and implemented the programme in other universities
Maclean and Furst (2010)	Zambia, Tanzania, Uganda	A qualitative study using interviews, non-participant observation, an internet survey and review of records.	Africa Midwives Research Network (AMRN) chairperson and secretariat. Focus groups and individual interviews with AMRN focal people and members, stakeholders and participants from education programmes in Zambia, Tanzania and Uganda.	✓			To evaluate the strengths and limitations of the AMRN and provide feedback and direction to the network and the funding body.	Evaluate strengths and limitations of AMRN by Swedish International Development Cooperation Agency (Sida) which had financed a technical collaboration between the Karolinska Institute (KI), Stockholm and AMRN.	Provision of biennial conferences which have disseminated information and research to some participants. Curriculum changes, introduction of research methodology into the education of teaching staff, changes in policy and practice.
Mogobe et al. (2009)	South Africa, Botswana, Tanzania, East Africa, Kenya, Rwanda, Niger and DRC.	Discursive	Individuals from eight host universities and consortium universities.		✓		Outlines the rationale and context of the Collaboration in Higher Education for Nursing and Midwifery in Africa (CHENMA) project. Focusing on the conditions in Africa that hamper the development of nursing and midwifery.	CHENMA is a project of collaboration between South African and other African nations to create clinical masters degree programmes.	Curriculum review. Includes developing modules, teaching, research supervision and evaluation of teaching-learning processes.
Parfitt et al. (2008)	Tajikistan	Discursive	Stakeholders from the Aga Khan Health Service (AKHS), the World Health Organisation Collaborating Centre (WHOCC) at the Glasgow Caledonian University (GCU), the WHO and the Ministry of Health (MoH).		✓		The aim of the nursing development project was to provide an infrastructure of training and education that would support the development of professional nursing in Tajikistan	Introduction of new curriculum, four expatriate nurses funded to support the programme. Local capacity building. Workshops, Senior nursing consultant from WHO CC, A regional nursing centre was established, Leadership workshops, mentorship training programmes	Raised standards of nurse practice and education. National recognition of the key role of nurses, Successful voluntary collaboration between partners.
Puns et al. (2002)	Philippines	Discursive	Respondents included 29 faculty members, 210 students. 16 school principals/deans and 16 school clinic administrators from eight nursing and eight midwifery schools.		✓		To assess the impact of the preservice programme since its closeout in 1998. To determine the current capacity of the participating nursing and midwifery schools to implement the strengthened FP/RH preservice programme, and to assess the institutionalisation of the interventions.	Faculty needs assessments and refurbishment of FP clinics affiliated with the schools, FP/RH clinical skills update courses for providers, FP/RH clinical training skills (CTS) courses for faculty and providers, production of curricular support materials, procurement of teaching aids and equipment, faculty training in infection prevention, depo-provera, reversible FP methods and RH counselling.	A review three years later revealed faculty still working in schools, strengthened FP/RH curriculum, improved clinical instruction to students and clinical services to clients, national accreditation of the FP/RH CTS course, Implementation of competency based teaching methods
Sherwood and Liu (2005)	China	Discursive	Participants from two programs: 1. The committee on Graduate Nursing Education (COGNE)			✓	Description of outcomes of two projects to develop graduate nursing education in China.	1. COGNE: 15 Chinese nurses obtained Master of Science in Nursing degree from USA	COGNE: one graduate developed translated resources for nursing

Study	Country	Method	Participants	✓	Aim	Description	Findings
			1988–1992 and 2. Program on Higher Nursing Education Development (POHNED) 1993–2001.			university but only four returned to China. 2. POHNED 84 Chinese nurses obtained Masters degree from in-country Chinese universities supported by regional partners from Thailand.	education, one obtained PhD and all four returnees contributed to the development of POHNED. POHNED graduates have increased capacity for research, teaching, administration and leadership.
The RESPOND Project (2012)	Kenya	Discursive	Interviews with 192 stakeholders between Nov 2011 and Mar 2012. Included representatives of regulatory bodies, training institutions, collaborating partners, students and graduates (nurses, nurse-midwives, clinical officers and medical officers).	✓	To gather in-depth information about the state of preservice family planning (FP) training in Kenya and to make recommendations for improving that training.	The team asked informants about the FP tasks of recent graduates, preservice preparation for those tasks, the balance of theoretical and practical training, and the application of the latest RH curriculum. Availability of contraceptives, medical equipment, instruments, and expendable supplies needed to provide FP at clinical sites were assessed.	Pre-service attention to FP varies across institutions. Too little time spent on clinical skill acquisition, little incentive, few instructors, poor ratio, competency based skill requirement does not allow for individual capability, limited simulation supplies, disconnect between what is expected and capability of graduates
Turkmani et al. (2013)	Afghanistan	Mixed methods approach – qualitative and quantitative with use of interviews and focus groups	138 graduated midwives and 20 key informants comprising of stakeholders and 24 focus groups with female residents of midwives catchment areas in eight provinces in Afghanistan	✓	To improve the pre-service midwifery education programme through identification of its strengths and weaknesses	Examined programme strengths and weaknesses. Measured perceptions of the programmes community impact and barriers to provision of care. Gathered perceptions of recently graduated midwives field experience.	Evaluation of pre-service midwifery education programme identified strengths and made recommendations for program improvement.
Usher et al. (2012)	Cook Islands, Fiji, Kiribati, marshall Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu	Discursive	Nurse leaders, tutors and students.	✓	To improve the quality of nursing services in Pacific Island countries through enhancing the quality of nursing and midwifery educational programs and services.	Assess the implementation into curriculum of outcome competencies in Pacific Island countries using WPSEAR common competencies as benchmark. Assess nursing schools in their implementation of relevant academic standards for nursing and midwifery education relevant to the Pacific	Inconsistent use of competencies for nursing and midwifery education and practice, scopes of nursing and midwifery practice, legislative and regulatory processes, and standards of nursing and nursing education. WPSEAR competencies difficult to understand and implement, lacking in primary health care focus and some countries in the region require their own national competencies and do not fit into a regional framework
Uys and Middle-ton (2011)	South Africa, Kenya, Tanzania, DRC, Mozambique, Rwanda	Descriptive qualitative study, single case study design including group interviews, individual interviews, email questionnaires	Nurse academics from the consortium of six universities in Southern Africa	✓	To explore whether an international partnership, developed around a community of practice partnership model can contribute to the understanding of internationalisation as a symmetrical process of engagement in learning/teaching in nursing education.	Examines the CHENMA as a case study and asks five open ended questions of the nurse academics from six consortium universities which formed the community of practice	Evidence of a community of practice, voluntary involvement is highlighted as an important aspect of the project. The south-south character of the project was seen as a central focus. Staff exchange, building skills and knowledge in faculty, creating an ethos that enables international and inter-cultural competence was reported as important.
Voetagbe et al. (2010)	Ghana	Mixed method study using structured self-administered questionnaires.	74 midwifery tutors from all 14 midwifery schools in Ghana	✓	To assess the capacity and willingness of midwifery tutors to teach contraception, post	The study assessed knowledge of the law on abortion and content of tutors' pre-service training, motivational and inhibiting	Only 18.9% of tutors were aware of legal indications for safe abortion. 74.3% of tutors stated that their pre-service

Table 2 (continued)

Reference	Country	Research methodology	Sample/participants	Midwifery	Nurse-Midwifery	Nursing	Aims/Objectives	Interventions	Findings
Wright et al. (2005)	Albania, Macedonia, and Romania, Central America and the Caribbean	Discursive	46 nurse scholars who participated in the International Capacity Building Program for Nurses (ICBN)	✓			Participation in three month residential training at Georgetown University and follow-on support over a 4 year period	Three month residential included courses on international aspects of health, educational development, leadership and professional development, follow-on programme included a web-based distance learning course in research, project management and population health. Teamwork to produce a strategic plan for strengthening nursing and midwifery in their home country/region.	Increased professional capacity. Evaluation results were categorised as: Empowerment, Nursing Practice, Professional development, Education, Legislation and Faculty growth. organisational development, New programme.
							abortion care and legal termination in Ghana	factors to teach comprehensive abortion care (CAC) and personal beliefs versus professional responsibility.	training did not include Ghanaian abortion law and policy. Religious bias and lack of clinical competency were also barriers to teaching CAC.

three key themes. These are: using curricula review to strengthen knowledge and skills in practice and teaching, building capacity in leadership, management and research skills, and finally, participation in communities of practice to increase access to information and resources (Fig. 2).

Using curricula review/update to improve educator skills and knowledge

Seven papers focused on developing midwifery educator's skills and knowledge as part of the curricula review process. Four of the papers were discursive (Pons et al., 2002; Fullerton et al., 2011; The RESPOND Project, 2012; Usher et al., 2012) and three based on primary research (Akiode et al., 2010; Voetagbe et al., 2010; Turkmani et al., 2013).

The methods of engagement between international consultants who are the capacity 'builders' and national participants who are the capacity 'buildees' are described in all the discursive papers that may indicate a focus on donor activity in this area. International capacity buildees used role plays, group discussion, simulation and clinical demonstrations to teach updated curriculum content to the national educators (Pons et al., 2002; Fullerton et al., 2011). If issues arose from working in a cross-cultural partnership, they were not described in any of the papers included in this section.

Master-trainer or train-the-trainer approaches involving key national educators featured in papers describing large projects where a national curriculum update required the involvement of multiple institutions (Pons et al., 2002; Akiode et al., 2010; Usher et al., 2012). An example was provided from Nigeria by Akiode et al. (2010) where a master-trainer model using a combination of theory and clinical practice was used to develop the knowledge, skills and attitudes of 169 midwifery educators from all 70 training institutions in Nigeria. Improvements noted from this approach included the implementation of contemporary adult education methods, which involved the use of simulation materials and sessions delivered by clinicians from teaching hospitals. The pre and post-test evaluation of this programme demonstrated successful outcomes including an increased level of midwifery educator's knowledge and skills relating to both content (post-abortion care) and teaching (Akiode et al., 2010). After the intervention, the results of surveyed midwifery graduates indicated that there was an increase in exposure to theoretical teaching and clinical practice in the area of post-abortion care, greater availability of equipment in the clinical area and more learning support from clinicians (Akiode et al., 2010).

International educators reported that national educators were sometimes reluctant to change their teaching methods and clinical practice (Pons et al., 2002; Akiode et al., 2010; Voetagbe et al., 2010; Fullerton et al., 2011; The RESPOND Project, 2012; Usher et al., 2012; Turkmani et al., 2013). For example, Usher et al. (2012) reported that, despite multiple collaborations with educators and administrators from the Pacific Island region to update curriculum with regional competency standards, some educators failed to implement the recommended changes when they returned to their home country. Reasons for this were noted in the RESPOND project report indicating that national midwifery educators were not always skilled or motivated to use contemporary adult education methods to improve the quality of teaching (The RESPOND Project, 2012). In another study, national midwifery educators were found to be adversely influenced by their peers who were reluctant to employ 'modern' teaching methods and use problem-based learning in their institution (Fullerton et al., 2011). In another study Voetagbe et al. (2010) assessed the capacity and willingness of 70 Ghanaian midwifery educators to teach and support clinical learning associated with comprehensive abortion
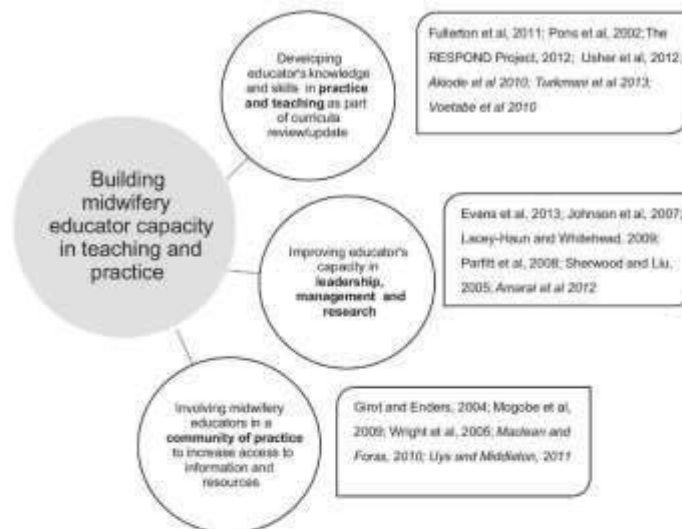
130

Fig. 2. Key findings of the review and citations.

care (Voetagbe et al., 2010). Despite the fact that post-abortion care is considered to be an additional competency (ICM, 2010) and may not be present in all midwifery education curricula, the findings indicated that midwives found teaching the material to be challenging due to a lack of wider knowledge, skills and personal beliefs. Midwifery educators displayed an inadequate knowledge of the law on abortion, a religious belief bias against teaching abortion and a lack of clinical competence in using manual vacuum aspirators. Although Voetagbe et al. (2010) identified the barriers and motivators for midwifery educators to teach comprehensive abortion care, the authors did not report any efforts that were undertaken to update the curriculum or capacity of the midwifery educators (Voetagbe et al., 2010). Such insight may have provided useful strategies to ensure a comprehensive curriculum to facilitate effective midwifery education.

Other challenges described in the papers in the review related to the lack of a standardized curriculum and inconsistent approaches to supporting student's learning within the country (The RESPOND Project, 2012; Turkmani et al., 2013), or within a region (Usher et al., 2012). These challenges were found to create significant variations in graduate competency that was complicated by the fact that the curriculum was not always aligned with national health plans. Although a standardized curriculum with evidence-based content was identified as a strength of a capacity building programme in Afghanistan (Turkmani et al., 2013), there were some criticisms that midwifery educators displayed a lack of professionalism by behaving disrespectfully to the students and lacked skills in the use of audiovisual aids.

A common theme across the papers was the inadequate quality and number of educators available to provide clinical supervision to students and a lack of competency-based assessment methods to assess student learning (Fullerton et al., 2011; Pons et al., 2002; The RESPOND Project 2012). Turkmani et al. (2013) analysed how a lack of midwifery educators in Afghanistan were found to impact on student learning with high ratios of students to educators making it difficult to effectively supervise clinical skill acquisition (Turkmani et al., 2013). In addition, the role of the midwife was not supported by the medical profession and the skills of midwifery clinicians in the clinical placement sites were not consistent with

the clinical practice of the midwifery graduates. Both these issues were reported to cause tension in the clinical area. The lack of equipment and skilled staff in the clinical area affected the provision of clinical learning support with results indicating that midwifery students were often expected to mentor medical students and clinicians which impacted on their own learning (Turkmani et al., 2013).

In summary, papers included under this theme found that approaches used to build midwifery educator's capacity when reviewing or updating curricula were more successful when incorporated into system wide improvements. Being able to apply theoretical knowledge in a supportive clinical environment was reported to improve student outcomes and lead to sustainable improvements in midwifery education.

Improving educator's skills in leadership, management and research

Improving skills in leadership, management and research to build educator capacity was a theme identified in five discursive (Sherwood and Liu, 2005; Johnson et al., 2007; Parfitt et al., 2008; Lacey-Haun and Whitehead, 2009; Evans et al., 2013) and one research paper (Amaral et al., 2012). The papers reported on findings from nurse-midwifery studies as there were no midwifery-specific papers. All discursive papers emphasise the importance of addressing cultural differences between the international capacity builders and the national buildees to ensure that approaches to building capacity are effective and culturally relevant (Sherwood and Liu, 2005; Johnson et al., 2007; Parfitt et al., 2008; Lacey-Haun and Whitehead, 2009; Evans et al., 2013). However, no specific strategies are provided with regards to best practice in this area.

All five discursive papers argued that the development of personal, professional and disciplinary leadership skills were important for educators to represent the profession nationally or internationally and increase the profile of the discipline (Sherwood and Liu, 2005; Johnson et al., 2007; Parfitt et al., 2008; Lacey-Haun and Whitehead, 2009; Evans et al., 2013). Conducting research was also identified as an important role for educators to assist them to remain current in teaching and clinical

practice and contribute to the body of professional knowledge (Lacey-Haun and Whitehead, 2009).

Having knowledge and skills in management was reported to assist educators in institutions gain advanced qualifications and provided more options for career progression. Educators who participated in leadership training reportedly increased their levels of self-confidence, critical thinking and problem solving skills (Sherwood and Liu, 2005; Parfitt et al., 2008). In addition improved leadership skills were found to be associated with improved student outcomes, contributing to a quality workforce (Lacey-Haun and Whitehead, 2009; Amaral et al., 2012).

Two papers from China and Eritrea described the use of a study abroad model to formally upgrade midwifery educator's teaching qualifications specifically in leadership and management (Sherwood and Liu, 2005; Johnson et al., 2007). However, studying abroad was not seen as a successful strategy, as educators did not always return to their home country after the training. A similar finding was found in Africa (Mogobe et al., 2009) where the cost of sending educators to study abroad made this approach prohibitive. The study abroad models in China and Eritrea were successfully revised to include in-country and regional mentoring and distance education modules which resulted in all educators returning to their previous posts with improved skills in leadership and management.

Distance education modules were found to be beneficial to building educator's skills when used in combination with short residential training (Lacey-Haun and Whitehead, 2009). International facilitators used training methods which included the identification of individual personality profiles, the promotion of self-assessment and reflection and the application of self-regulation skills. This was found to result in sustainable outcomes for educators who completed leadership training as they were able to go onto become facilitators for similar training in other African countries (Lacey-Haun and Whitehead, 2009).

Email correspondence between the capacity buildees and builders used as a means to facilitate completion of distance education modules were described in two papers as problematic due to differing cultural perceptions of communication, time and work priorities (Johnson et al., 2007; Lacey-Haun and Whitehead, 2009). Ongoing mentoring from international counterparts and national peer support were highlighted as important approaches to ensure that leadership programme objectives were met and learning outcomes achieved (Sherwood and Liu, 2005; Johnson et al., 2007; Evans et al., 2013). Sherwood and Liu (2005) noted that leadership and management training was conducted in English to enable increased access to evidence based resources (Sherwood and Liu, 2005), however the level of English proficiency of the educators was not specified therefore it is unclear if language difficulties were encountered. The authors described the translation of resources into Chinese which enabled greater dissemination of teaching and learning and improving communication within the faculty (Sherwood and Liu, 2005).

Two papers, from Eritrea and Tajikistan reported the benefits of including computer and internet literacy into the residential training of a leadership training programme. Both studies found improvements in participant's confidence to use electronic methods to complete course requirements (Johnson et al., 2007; Parfitt et al., 2008). Effective electronic communication was reported to be essential to enable multicultural and international collaboration between both parties involved in capacity building (Lacey-Haun and Whitehead, 2009; Fullerton et al., 2011). Such skills enabled educators to build capacity in academic management, student affairs and research paper writing. Communication and negotiation skills were also found to be enhanced through multidisciplinary leadership training that also provided opportunities for networking and building relationships between cadres of health care professionals (Parfitt et al., 2008; Lacey-Haun and Whitehead, 2009). Fullerton et al. (2011) also identified that incorporating leadership training in faculty development programs facilitated effective role modelling and increased professionalism.

The FAIMER project, a two year part-time training programme for nursing, dentistry, pharmacy and medicine educators in Brazil provides another example of leadership and management capacity building (Amaral et al., 2012). The moderated course structure which consisted of both residential schools and distance learning was evaluated positively by the participants. Despite methodological weaknesses, self-reported pre and post programme surveys found that participant's knowledge and skills had improved across programme areas. The majority of participants succeeded in fulfilling the course requirements that included contributing to research and curricula improvements, increasing the professionalism of their cadres by speaking at conferences and contributing to faculty development at their institutions (Amaral et al., 2012). These findings are consistent with discursive reports in this review which highlight the importance of midwifery educator participation in research to remain current in their clinical practice and teaching (Lacey-Haun and Whitehead, 2009).

In summary, building midwifery educator's skills in leadership, management and research can increase individual's confidence and skills. Personal confidence improves educator's self-efficacy and ability to advocate for resources, share knowledge and strengthen education systems. Participating in research and disseminating research findings was reported to strengthen the status of the midwifery profession and ensure the use of contemporary curricula and teaching methods. All discursive papers included in this section indicate that international capacity builders who are culturally sensitive and have knowledge about the country, context and language are more likely to achieve improved outcomes.

Creating a community of practice

Three discursive (Girot and Enders, 2003; Wright et al., 2005; Mogobe et al., 2009) and two research papers (Maclean and Forss, 2010; Uys and Middleton, 2011) reported on the development of midwifery educator capacity through the establishment of communities of practice involving national, regional or international collaboration. Alternate terms are used within the papers to describe collaboration or the process of working together to improve the quality of midwifery education including internationalisation and participation.

Communicating using a common language and having access to evidence based resources were important considerations when working in an international or regional partnership (Girot and Enders, 2003; Wright et al., 2005; Mogobe et al., 2009). Strategies were described to facilitate communication prior to the commencement of one collaborative education project including the requirement that all partners were proficient in the English language (or another common language) and the provision of a three month intensive language training for national educators who were not fluent (Wright et al., 2005). In addition, establishing context specific goals when collaborating between countries was considered important when setting up an international partnership (Wright et al., 2005). Culture was acknowledged as having an impact on capacity building and it was emphasised that both parties benefit from knowledge of the others culture and context in order for communication to be effective (Girot and Enders, 2003; Wright et al., 2005; Uys and Middleton, 2011). An example of a successful collaboration between educators from different countries is described by Uys and Middleton (2011). The South African capacity builders involved in the Collaboration in Higher Education for Nursing and Midwifery (CHENMA) were described as enabling their East African counterparts to feel respected and

empowered during the project. The South-South nature of the project was identified as a major strength and the voluntary involvement of the capacity builders from South Africa was an important characteristic to reduce power imbalance between the countries (Uys and Middleton, 2011). In addition to building capacity at an individual level, the project assisted in building institutional capacity by strengthening universities' ability to interact with major stakeholders and prepare them for international involvement. Some additional benefits for the institutions were the establishment of ongoing international relationships between midwifery educators, improved university status and increased staff motivation to use contemporary adult education methods and evidence based practice. Challenges were found where collaboration included supervisory relationships across institutions. Supervising the work of others via the internet was problematic due to lack of infrastructure, poor computer literacy or decreased student motivation to communicate electronically (Uys and Middleton, 2011). Strategies that include not only a common language but equivalent levels of information literacy and computer infrastructure may also be useful requisites to collaborative endeavours.

Engaging with multiple stakeholders (recipients of care, clinical service providers, professional organisations, members of the health department) was noted as essential to ensure that support is available for the capacity building interventions to be implemented and sustained (Girot and Enders, 2003; Wright et al., 2005). For example, Pons et al. (2002) described how collaboration between individuals, organisations and the health system in the Philippines enabled a sustained change in contemporary clinical practice up to two years after the initial curriculum review and update. Engaging in regional or international partnerships in order to meet the health needs of an increasingly globalised population was identified as being beneficial for national educators in two papers (Wright et al., 2005; Mogobe et al., 2009). These papers identified that regional collaboration improved midwifery educators capacity to work across cultures and had a lasting positive impact on the development of curriculum, practice and professional association (Wright et al., 2005; Mogobe et al., 2009).

Sharing knowledge and resources in a supportive environment was reported to improve teamwork, inter-disciplinary collaboration and contribute to professional development (Girot and Enders, 2003; Wright et al., 2005; Mogobe et al., 2009). For example, team building exercises, lectures, and site visits were used to facilitate teaching and learning in an International Capacity Building Program for Nurses (ICBN) where national educators were supported in small groups to develop strategic plans for how to improve capacity in their home country. Group work was evaluated as beneficial for building confidence in working with others and it was found that capacity buildees had increased confidence to present their strategic plans to Ministries of Health, the World Health Organization, and at national and international meetings (Wright et al., 2005).

A lack of networking and alliance between countries was found to contribute to the delayed development of midwifery education (Mogobe et al., 2009). However, increasing numbers of qualified educators within a region was reported to contribute to the advancement of the midwifery profession as educators who had access to professional development opportunities were more likely to engage with stakeholders and contribute to all levels of decision making and policy development. (Wright et al. 2005). Regional collaboration was also identified as a cost effective way to develop midwifery educator capacity in smaller LMIC where it may not be financially feasible to have in-country professional development programs to upgrade midwifery educator's qualifications to Masters or PhD level. An example of networks within a region has been described by Maclean and Forss (2010). The African Midwives Research Network (AMRN) created a network of professionals who could support each other, share resources and contribute to midwifery faculty development (Maclean and Forss, 2010). However, a lack of availability and access to electronic forms of communication meant that the majority of members who resided in less developed countries in Africa had limited interaction with others and could not access electronic research findings. Some members of the network displayed evidence of improved knowledge andpractical skills which stimulated inclusion of contemporary research evidence into curricula revisions and the provision of respectful maternity care to women.(Maclean and Forss 2010).

In summary, approaches using collaboration to build capacity of midwifery educators has been reported to increase access to resources, strengthen alliances and may be a cost effective strategy to upgrade teaching qualifications. During an international partnership to build capacity, it was acknowledged that learning occurs both ways and the capacity builders often experienced cultural learning which was essential to the successful implementation of the project.

Discussion

This review focuses on approaches used to build midwifery educator's capacity in teaching. The review focused on educators working in midwifery training institutions, regardless of the length of the curriculum or whether the institution provided a direct-entry or post-graduate qualification. This review identified a variety of approaches to develop the quality of midwifery educator's knowledge and skills in teaching and clinical practice, with some overlap of approaches described within the papers. As primary evidence from research papers was limited, discursive literature was included to enrich an understanding of the environment and challenges affecting the capacity building of midwifery educators in LMIC. Overall, the papers showed that a lack of trained and motivated midwifery educators and outdated curricula affected the quality of midwifery education. It was also reported that support to clinical teaching sites through the provision of material resources and continuing professional development for clinicians would be useful to minimise the theory-practice gap experienced by midwifery educators and student midwives during clinical placement. Not all papers that conducted assessments of curricula and midwifery educator capacity have implemented or evaluated their recommendations which limits the ability of this review to critique suggested strategies. A lack of research studies specific to midwifery was noted together with an absence of a framework for planning, implementing and evaluating midwifery educator development in LMIC. The findings of this review provide insights for developing midwifery educator capacity at individual, institutional and system levels that requires active leadership and support from midwifery faculty members with appropriate professional skills and attributes. This review identified a number of approaches to building midwifery educator capacity that were included as part of curriculum review or update, focused on strengthening leadership, management and research skills and collaborating in a community of practice. These approaches are described in the following section.

Leadership as an enabling factor

If educators have completed a leadership and management programme and hold positions of influence, there is evidence that they take a more active role in sharing research and education-related information at conferences, meetings and workshops, assisting to build a critical mass of educators within their schools, regions and country (Lacey-Haun and Whitehead, 2009; Amaral et al., 2012). In most resource poor country settings there is a

breadth of knowledge and experience but midwifery educators are often not empowered to act as change agents (Voetagbe et al., 2010). There is evidence to suggest that the poor status of women and midwifery in some LMIC pose barriers for midwifery educators to influence policy at institutional and health system level (Turkmani et al., 2013; Bacon et al., 2014). This review found that leadership and management training enabled midwifery educators to communicate more effectively with heads of department, university administration and ministry of health officials to advocate for resources for midwifery education (Amaral et al., 2012). In countries where there is a motivated midwifery professional association or academic community, there is increased midwifery representation in national level discussions and policy development (Amaral et al., 2012; Turkmani et al., 2013). Leadership and management training combined with building knowledge and skills in teaching methodologies and clinical midwifery practice is an effective strategy to build midwifery educators confidence and competence (Johnson et al., 2007; Parfitt et al., 2008; Lacey-Haun and Whitehead, 2009).

Individual, institutional and system-wide approaches to building midwifery educator capacity

Concurrent strengthening of organisations and systems to complement individual capacity building was highlighted to improve the quality of midwifery educator teaching and clinical facilitation (Akiode et al., 2010; Maclean and Forss, 2010; Voetagbe et al., 2010; Turkmani et al., 2013). There is little evidence, however, about how such comprehensive approaches can be achieved. There is high level acknowledgement that a collaborative approach involving relevant stakeholders in education facilities, regulation authorities and clinical placement sites is useful and has a more sustainable impact on midwifery educator satisfaction and retention than a single-level approach (The State of the World's Midwifery, 2014). Developing policy, infrastructure and resources and investing in in-service education are supportive strategies that can assist the professional development of midwifery educators and therefore better prepare students for midwifery practice (World Health Organisation, 2009, 2013; International Confederation of Midwives, 2013).

Considerations for individuals providing faculty development in low-resource countries

The paper by Maclean and Forss (2010) highlighted the importance of considering cultural competence and collaboration when planning a programme to develop midwifery education. Establishing trust and mutual respect are key to developing an effective partnership and prevent cultural misunderstandings that can affect the achievement of capacity building outcomes (Maclean, 2013). International collaborative efforts to build capacity have been accepted more readily in countries where there has been an established relationship in health development or education prior to the implementation of an initiative (Maclean, 2013). Having knowledge of the context and the different working and living conditions helps to prepare international consultants to provide development assistance (Maclean, 2013). The review findings show that where possible, in-country programs were preferred over sending educators outside their country for training and development highlighting the importance of context specific capacity building. It was identified across both discursive and research papers that variable internet connectivity, poor computer literacy and a preference for face-to-face learning impacted on the transfer of skills and knowledge. This meant that externally-moderated internet-based learning modules were not well

accepted in LMIC and would be more successful with an in-country facilitator to support learning.

Limitations

The inclusion of only English language publications is a limitation of this review. Although research from seven regions have been included, not all member countries or regions of the ICM or WHO (ICM, 2014; WHO, 2015) have published quality research in English language which limits the representation from the other regions.

Conclusion

The approaches identified in this review to build midwifery educator capacity were related to curriculum review and skill development, leadership, management and research training and collaborating in a community of practice. It is acknowledged that focusing on education alone is not sufficient to build an effective midwifery workforce. Support to build educational infrastructure, resources, systems and regulation is also needed to produce a practice-ready midwifery workforce who can meet the needs of women and children (The State of the World's Midwifery, 2014). Participation in leadership and management training enables midwifery educators to engage at both national and international levels to advocate for professional development opportunities for midwives. In a resource-poor environment, collaboration between countries (internationalisation) can be beneficial given there is an increasingly global midwifery education workforce. Educating midwifery educators abroad was not found to be an effective strategy in this review and a lack of infrastructure and poor computer literacy in LMIC limited the use of internet-based distance learning modules. There was a lack of literature relating to the use of a framework to guide capacity building approaches and how the outcomes of existing interventions are being monitored and evaluated. Implementing competency based assessment methods into teaching and learning has also not been thoroughly reported nor how midwifery educators could engage with their institution or system to ensure sustainability. More research in these areas and the development of a framework to guide approaches to build midwifery educator capacity in LMIC is needed.

Conflict of interest

The authors declare that they have no competing interests.

References

Akiode, A., Fetters, T., Daroda, R., Okeke, B., Oji, E., 2010. An evaluation of a national intervention to improve the postabortion care content of midwifery education in Nigeria. Int. J. Gynaecol. Obstet. 110, 186–190.
Amaral, E., Campos, H.H., Friedman, S., et al., 2012. An educational international partnership responding to local needs: process evaluation of the Brazil FAIMER Regional Institute. Educ. Health (Abingdon) 25, 116–123.
Bacon, A., Ellis, C., Rostoker, J.-F., Olaro, A.A., 2014. Exploring the role of midwives in Uganda's postabortion care: current practice, barriers, and solutions. Int. J. Childbirth 4, 1–14.
Evans, C., Razia, R., Cook, E., 2013. Building nurse education capacity in India: insights from a faculty development programme in Andhra Pradesh. BMC Nurs. 12, 1–8.
Fullerton, J.T., Johnson, P.G., Thompson, J.B., Vivio, D., 2011. Quality considerations in midwifery pre-service education: exemplars from Africa. Midwifery 27, 308–315.
Fullerton, J.T., Severino, R., Brogan, K., Thompson, J., 2003. The International Confederation of Midwives' study of essential competencies of midwifery practice. Midwifery 9, 174–190.
Girot, E.A., Enders, B.C., 2003. International educational partnership for practice: Brazil and the United Kingdom. J. Adv. Nurs. 46, 144–151.

International Confederation of Midwives, 2014. Midwives Associations, viewed 5 February 2014. 〈www.internationalmidwives.org〉.

International Confederation of Midwives, 2013. Association Core Documents, viewed 23 October 2013. 〈www.internationalmidwives.org〉.

International Confederation of Midwives, 2010. Essential Competencies for Basic Midwifery Practice, viewed 5 February 2014.

John Hopkins University. 2015. The Training Resource Package for Family Planning. USAID, WHO and UNFPA, Baltimore.

Johnson, P., Ghebreyohanes, G., Cunningham, V., Kutenplon, D., Bouey, O., 2007. Distance education to prepare nursing faculty in Eritrea: diffusion of an innovative model of midwifery education. J. Midwifery Womens Health 52, e37–e41.

K4Health, 2015. Pre-service Education Toolkit, USAID, MCHIP and JHPIEGO, Baltimore.

K4Health, 2014. Postpartum Family Planning (PPFP) Toolkit, USAID, MCHIP, Baltimore.

Lacey-Haun, L.C., Whitehead, T.D., 2009. Leading change through an international faculty development programme. J Nurs. Manag. 17, 917–930.

Law, M., Stewart, D., Pollock, N., Letts, L., Bosch, J., Westmorland, M., 1998. Critical Review Form – Quantitative Studies. McMaster University, Ontario.

Lucas, P.J., Baird, J., Arai, L., Law, C., Roberts, H.M., 2007. Worked examples of alternative methods for the synthesis of qualitative and quantitative research in systematic reviews. BMC Med. Res. Methodol. 7, 1–7.

Maclean, G.D., 2013. Electives and International Midwifery Consultancy: A Resource for Students, Midwives and Other Healthcare Professionals. Tiger stripes and tears, Quay Books, London.

Maclean, G.D., Furst, K., 2010. An evaluation of the Africa Midwives Research Network. Midwifery 26, e1–e8.

Mogobe, K.D., Bruce, J.C., Meyer, S., 2005. Collaboration in higher education for nursing and midwifery in Africa (CHENMA). Afr. J. Nurs. Midwifery 11, 5–15.

National Health Service, 2006. Critical Appraisal Skills Programme (CASP) Making Sense of Evidence. Public Health Resource Unit, London.

Parfitt, B., Mughal, M., Thomas, H., 2008. Working together: a nursing development project in Tajikistan. Int. Nurs. Rev. 55, 205–211.

Pons, M., Rawlins, B., Griffey Brechin, S.J., 2002. Institutionalization of Reproduction Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987–1998. JHPIEGO, USA.

Popay, J., Roberts, H.M., Sowden, A., et al., 2005. Guidance on the Conduct of Narrative Synthesis in Systematic Reviews: A Product from the ESRC Methods Programme. Lancaster University, UK.

Renfrew, M.J., McFadden, A., Bastos, M.H., et al., 2014. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet 384.

Sherwood, G., Liu, H., 2005. International collaboration for developing graduate education in China. Nurs. Outlook 53, 15–20.

The RESPOND Project, 2012. Kenya Preservice Training for Long-acting and Permanent Methods of Contraception: Assessment Report, Engender Health/The RESPOND Project, New York.

The State of the World's Midwifery, 2011. Delivering Health, Saving Lives, UNFPA, New York.

The State of the World's Midwifery, 2014. A Universal Pathway. A Woman's Right to Health, UNFPA, New York.

Thompson, J.B., Fullerton, J.T., Sawyer, A.J., 2011. The International Confederation of Midwives: Global standards for midwifery education (2010) with companion guidelines. Midwifery 27, 409–416.

Turkmani, S., Currie, S., Mungia, J., et al., 2013. Midwives are the backbone of our health system: lessons from Afghanistan to guide expansion of midwifery in challenging settings. Midwifery 29, 1166–1172.

Tyndall, J., 2010. AACODS Checklist. Flinders University Academic Commons, Adelaide.

United Nations Development Program, 2009. Capacity Development: A UNDP Primer, New York.

Usher, K., Lindsay, D., Stewart, L., et al., 2012. Enhancing the Quality of Nursing and Midwifery. Educational Programs and Services in the Pacific, JCU/AUT.

Uys, L.R., Middleton, L., 2011. Internationalising university schools of nursing in South Africa through a Community of Practice. Int. Nurs. Rev. 58, 115–122.

Voetagbe, G., Yellu, N., Mills, J., et al., 2010. Midwifery tutors' capacity and willingness to teach contraception, post-abortion care, and legal pregnancy termination in Ghana. Hum. Resour. Health 8, 1–6.

World Health Organization, 2015. Alphabetical List of WHO Member States, viewed 10 April 2014. 〈www.who.int〉.

World Bank, 2014. World Bank List of Economies, viewed 5 April 2014. 〈www.worldbank.org〉.

World Health Organization, 2013. Midwifery Educator Core Competencies. World Health Organization, Geneva.

World Health Organization, 2009. Global Standards for the Initial Education of Professional Nurses and Midwives. World Health Organization, Geneva.

World Health Organization, 2008. Midwifery Education Modules, 2nd Edition WHO, Geneva.

Wright, S., Cloonan, P., Leonhardy, K., Wright, G., 2005. An international programme in nursing and midwifery: building capacity for the new millennium. Int. Nurs. Rev. 52, 18–23.

Appendix 2: Conference presentation abstracts

1. West, F., Homer, C and Dawson, A. (September 2014). *Developing capacity in midwifery education for the next generation of Midwives in Papua New Guinea.* Australian College of Midwives Queensland State Conference, Gold Coast, Australia.

TITLE

Developing capacity in midwifery education for the next generation of midwives in Papua New Guinea

AUTHORS

Florence West, Caroline Homer and Angela Dawson

BACKGROUND

Papua New Guinea (PNG) has some of the poorest health and education outcomes in the Asia-Pacific region. Maternal mortality is estimated to be as high as 733 per 100 000 live births. The World Health Organization (WHO) PNG Maternal and Child Health Initiative (MCHI) commenced in 2011 and is funded by the Australian Government.

AIM OF PAPER

The aim of the MCHI is to build midwifery capacity to reduce maternal and child deaths and improve health outcomes. In this paper I will present my professional reflections on my involvement in the MCHI and describe how collaborations between midwives can help to build much needed capacity for the next generation of midwives in PNG.

METHODS USED/RECOMMENDATIONS FOR PRACTICE

I was a Clinical Midwifery Facilitator (CMF) in the MCHI from 2012 to 2013. The role of CMF is to work alongside PNG midwifery educators as mentor and advisor to improve clinical and tutoring skills. The cultural exchange, professional development and personal growth that occurred was extremely valuable for both myself and my counterparts. In a low-resource, culturally diverse country like PNG, there are many challenges for the expatriate midwife. Language, culture, the 'way things are done around here' were all different. English, for many staff and students, is their third or fourth language and consequently face to face communication was more effective than email or telephone. There were inequities in housing conditions, salary and leave entitlements that also affected relationship building.

RESULTS/CONCLUSIONS

Capacity building requires more effective methods of culturally appropriate communication. Sharing details of my family life and my experiences working in other countries were received well as knowledge is traditionally transferred through story-telling. My 'direct' approach to get straight to

the point was not culturally appropriate. The emphasis was more on the process of communication, rather than the outcome of the discussion. The responsibility for having cultural competence becomes more relevant today as increasing numbers of midwives migrate around the globe to support capacity development initiatives, seek professional development opportunities or fill rural and remote area vacancies.

ETHICAL/CONSENT CONSIDERATIONS

No personal identifying information will be provided. I have permission from UTS for this presentation.

2. West, F., Homer, C and Dawson, A. (April 2015). *Cultural competence in midwifery education in Papua New Guinea.* Virtual International Day of the Midwife, Online Conference.

PRESENTER NAME

Florence West

TITLE OF PRESENTATION

Developing capacity in midwifery education for the next generation of midwives in Papua New Guinea

BACKGROUND

Papua New Guinea (PNG) has some of the poorest health and education outcomes in the Asia-Pacific region. Maternal mortality is estimated to be as high as 733 per 100 000 live births. The World Health Organization (WHO) PNG Maternal and Child Health Initiative (MCHI) commenced in 2011 and is funded by the Australian Government.

AIM OF PAPER

The aim of the MCHI is to build midwifery capacity to reduce maternal and child deaths and improve health outcomes. In this paper I will present my professional reflections on my involvement in the MCHI and describe how collaborations between midwives can help to build much needed capacity for the next generation of midwives in PNG.

METHODS USED/RECOMMENDATIONS FOR PRACTICE

I was a Clinical Midwifery Facilitator (CMF) in the MCHI from 2012 to 2013. The role of CMF is to work alongside PNG midwifery educators as mentor and advisor to improve clinical and tutoring skills. The cultural exchange, professional development and personal growth that occurred was extremely valuable for both myself and my counterparts. In a low-resource, culturally diverse country like PNG, there are many challenges for the expatriate midwife. Language, culture, the 'way things are done

around here' were all different. English, for many staff and students, is their third or fourth language and consequently face to face communication was more effective than email or telephone. There were inequities in housing conditions, salary and leave entitlements that also affected relationship building.

RESULTS/CONCLUSIONS

Capacity building requires more effective methods of culturally appropriate communication. Sharing details of my family life and my experiences working in other countries were received well as knowledge is traditionally transferred through story-telling. My 'direct' approach to get straight to the point was not culturally appropriate. The emphasis was more on the process of communication, rather than the outcome of the discussion. The responsibility for having cultural competence becomes more relevant today as increasing numbers of midwives migrate around the globe to support capacity development initiatives, seek professional development opportunities or fill rural and remote area vacancies.

ETHICAL/CONSENT CONSIDERATIONS

No personal identifying information will be provided. I have permission from UTS for this presentation.

3. West, F., Homer, C and Dawson, A. (July 2015). *Building midwifery educator capacity in teaching in low and lower-middle income countries (LMIC): A review of the literature*. International Confederation of Midwives Asia Pacific Region. Yokohama, Japan.

TITLE

Building midwifery educator capacity in teaching and practice in low and lower-middle income countries: A review of the literature

AIM AND OBJECTIVE

Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. This paper will explore approaches used to build midwifery educator capacity in LMIC and identify evidence to inform improved outcomes for midwifery education.

DESIGN

A structured search of bibliographic electronic databases (CINAHL, OVID, MEDLINE, and PubMed) and the search engine Google Scholar were performed. It was decided to also review peer reviewed research, grey literature and descriptive papers. Papers were included in the review if they were written in English, published between 2000 and 2014 and addressed building knowledge and/or skills

in teaching and/or clinical practice in midwifery educators who work in training institutions in LMIC. The Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) was used to guide the reporting process. The quality of papers was appraised in discussion with all authors. The findings sections of the research papers were analyzed to identify successful elements of capacity building approaches.

FINDINGS

Eighteen (6 research and 12 discursive) papers were identified as related to the topic, meeting the inclusion criteria and of sufficient quality. The findings were themed according to the key approaches used to build capacity for midwifery education. These approaches are: skill and knowledge updates associated with curriculum review, involvement in leadership, management and research training and, participation in a community of practice within regions to share resources.

KEY CONCLUSIONS

The study provides evidence to support the benefits of building capacity for midwifery educators. Multi-level approaches that engaged individuals and institutions in building capacity alongside an enabling environment for midwifery educators are needed but more research specific to midwifery is required.

IMPLICATIONS FOR PRACTICE

These findings provide insight into strategies that can be used by individuals, faculties and institutions providing development assistance to build midwifery educator capacity in LMIC.

Keywords: Midwifery; education; developing country; capacity building.

4. West, F., Homer, C and Dawson, A. (June 2016). *Working together to build midwifery capacity. Findings from a qualitative study.* Optimizing Healthcare Quality. Teamwork in Education, Research and Practice, Chiang Mai, Thailand.

TITLE

Working together to build midwifery educator capacity: Findings from a qualitative study

AIM AND OBJECTIVE

Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. This paper reports the findings from a study that aimed to determine how a capacity building initiative (Papua New Guinea (PNG) Maternal and Child Health Initiative) enabled the midwifery educators to improve the teaching and learning to ensure quality graduates.

DESIGN

A qualitative study using an exploratory case study design was used to explore how the capacity of midwifery educators in LMIC can be strengthened. Data were collected from 26 semi-structured interviews conducted with both the national and international midwifery educators. The interviews explored the educator's perceptions of working together in teaching institutions and clinical practice sites to strengthen teaching capacity. A thematic analysis was undertaken.

FINDINGS

There were seven themes identified. The first three provide insights into enabling factors for strengthening midwifery educator capacity, that is: knowing your own capabilities, being able to build relationships and being motivated to improve the health status of women.

The next four themes explored aspects which were perceived to constrain the individual's ability to improve midwifery educator capacity. These were: having a mutual understanding of the capacity building project, preparing stakeholders for working together, knowing how to adapt to a different culture, needing an environment which supports improved midwifery education.

KEY CONCLUSIONS

Central to the success of partnering international and national counterparts is the ability of individuals to work together in a cross-cultural partnership. The study provides evidence to support a capacity-building approach where international and national midwifery educators work closely together to strengthen teaching and learning skills. An individual's personal and professional attributes play a role in determining the success of working in such a partnership. Having cultural competence, adapting to the context and having a supportive environment to implement improved knowledge and skills were also identified as key aspects of a capacity building initiative.

IMPLICATIONS FOR PRACTICE

These findings provide insight into strategies that can be used by individuals, and organizations who provide development assistance to build midwifery educator capacity in LMIC. Recommendations for future capacity building initiatives will be provided.

Keywords: Midwifery; education; developing country; capacity building.

5. West, F., Homer, C and Dawson, A. (July 2016). *Working together to build midwifery capacity. Findings from a qualitative study.* Global Network of World Health Organization Collaborating Centre for Nursing and Midwifery. Strategic Conversations. Glasgow, Scotland.

TITLE

Working together to build midwifery educator capacity in Papua New Guinea: Findings from a qualitative study

BACKGROUND/CONTEXT OF PAPER

Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. Study abroad, externally-facilitated online training modules and working together with overseas trained midwifery educators are just some of the approaches that have been used to strengthen midwifery educator's knowledge and skills in teaching.

AIM OF PAPER

This paper reports the findings from a study that aimed to determine how a capacity building initiative (Papua New Guinea (PNG) Maternal and Child Health Initiative) enabled the Papua New Guinean midwifery educators to improve teaching and learning, incorporate contemporary research evidence and ensure quality midwifery graduates.

METHODS

A qualitative study using an explanatory case study design was used to explore how the capacity of midwifery educators in LMIC can be strengthened. Data were collected from 26 semi-structured interviews conducted with both national and international midwifery educators. The interviews explored the educator's perceptions of working together in teaching institutions and clinical practice sites to strengthen teaching capacity. A thematic analysis was undertaken.

KEY POINTS FOR DISCUSSION

There were seven themes identified. The first three provide insights into enabling factors for strengthening midwifery educator capacity, that is: knowing your own capabilities, being able to build relationships and being motivated to improve the health status of women.

The next four themes explored aspects which were perceived to constrain the individual's ability to improve midwifery educator capacity. These were: having a mutual understanding of the capacity building project, preparing stakeholders for working together, knowing how to adapt to a different culture, needing an environment which supports improved midwifery education.

CONCLUSION AND RECOMMENDATIONS

Central to the success of partnering international and national counterparts is the ability of individuals to work together in a cross-cultural partnership. The study provides evidence to support a capacity-building approach where international and national midwifery educators work closely together to strengthen context-specific knowledge and skills in teaching. An individual's personal and professional attributes play a role in determining the success of working in such a partnership. Having self-awareness, cultural competence and adapting to a new working environment are desirable

qualities for midwifery educators working in partnership models. Access to contemporary midwifery knowledge, being receptive to change and having a supportive environment to implement improved knowledge and skills were also identified as important factors. Further research is necessary to establish whether the findings from this case study are transferrable to other LMIC. Midwifery education institutions, educators and students would benefit from additional findings which can inform and prepare international and national midwifery educators to work together to strengthen midwifery educators capacity in LMIC.

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practice involving national, regional or international collaboration.

Communicating using a common language and having access to evidence based resources were important considerations when working in an international or regional partnership.

Engaging with multiple stakeholders (recipients of care, clinical service providers, professional organizations, members of the health department) was noted as essential to ensure that support is available for the capacity building interventions to be implemented and sustained.

Sharing knowledge and resources in a supportive environment was reported to improve teamwork, inter-disciplinary collaboration and professional development.

In summary, approaches using collaboration to build capacity of midwifery educators has been reported to increase access to resources, strengthen alliances and may be a cost effective strategy to upgrade teaching qualifications. During an international partnership to build capacity, it was acknowledged that learning occurs both ways and the capacity builders often experienced cultural learning which was essential to the successful implementation of the project.

Conclusion

The approaches identified in this review to build midwifery educator capacity were related to curriculum review and skill development, leadership, management and research training and collaborating in a community of practice. It is acknowledged that focusing on education alone is not sufficient to build an effective midwifery workforce. Support to build educational infrastructure, resources, systems and regulation is also needed to produce a practice-ready midwifery workforce who can meet the needs of women and children. Participation in leadership and management training enables midwifery educators to engage at both national and international levels to advocate for professional development opportunities for midwives. In a resource-poor environment, collaboration between countries (internationalization) can be beneficial given there is an increasingly

global midwifery education workforce. Educating midwifery educators abroad were not found to be effective in this review and a lack of infrastructure and poor computer literacy in LMIC limited the use of internet-based distance learning modules. More research in these areas and the development of a framework to guide approaches to build midwifery educator capacity in LMIC is needed.

Developing policy, infrastructure and resources and investing in in-service education are supportive strategies that can assist the professional development of midwifery educators and therefore better prepare students for midwifery

WORLD HEALTH ORGANIZATION COLLABORATING CENTRE FOR NURSING, MIDWIFERY AND HEALTH DEVELOPMENT
Building midwifery educator capacity in teaching and practice in low and lower-middle income countries: a review of the literature

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BUILDING MIDWIFERY EDUCATOR CAPACITY IN TEACHING AND PRACTICE IN LOW AND LOWER-MIDDLE INCOME COUNTRIES:
A REVIEW OF THE LITERATURE

Florence West, Midwifery Research Officer/Project Coordinator, UTS
Caroline Homer, Professor of Midwifery and Associate Dean, International and Development, UTS
Angela Dawson, Research Fellow, Conjoint Senior Lecturer, School of Public Health and Community Medicine, University of New South Wales

Abstract
Aim and Objective:
Midwifery educators play a critical role in strengthening the midwifery workforce in low and lower-middle income countries (LMIC) to ensure that women receive quality midwifery care. However, the most effective approach to building midwifery educator capacity is not always clear. This paper will explore approaches used to build midwifery educator capacity in LMIC and identify evidence to inform improved outcomes for midwifery education.
Design:
A structured search of bibliographic electronic databases (CINAHL, OVID, MEDLINE, PubMed) and the search engine Google Scholar was performed. It was decided to also review peer reviewed research, grey literature and descriptive papers. Papers were included in the review if they were written in English, published between 2000 and 2014 and addressed building knowledge and/or skills in teaching and/or clinical practice in midwifery educators who work in training institutions in LMIC. The Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) was used to guide the reporting process. The quality of papers was appraised in discussion with all authors. The findings sections of the research papers were analyzed to identify successful elements of capacity building approaches.
Findings:
Eighteen (6 research and 12 discursive) papers were identified as related to the topic, meeting the inclusion criteria and of sufficient quality. The findings were themed according to the key approaches used to build capacity for midwifery education. These approaches are: skill and knowledge updates associated with curriculum review, involvement in leadership, management and research training and, participation in a community of practice within regions to share resources.
Key conclusions:
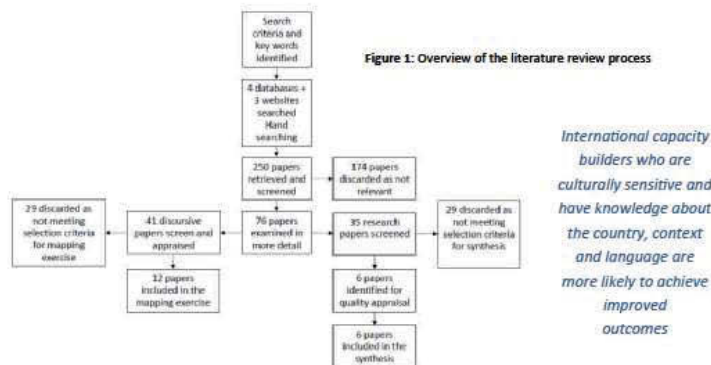The study provides evidence to support the benefits of building capacity for midwifery

educators. Multi-level approaches that engaged individuals and institutions in building capacity alongside an enabling environment for midwifery educators are needed but more research specific to midwifery is required.
Implications for practice:
These findings provide insight into strategies that can be used by individuals, faculties and institutions providing development assistance to build midwifery educator capacity in LMIC.

Introduction and Background

There is international consensus that midwifery care is the most cost effective solution to decreasing maternal and newborn mortality in low and lower-middle income countries (LMIC). The ability of a midwife to demonstrate competence according to international standards and contribute to improving outcomes for women and newborns depends on various factors. These include the quality of pre-service training, access to continuing professional development once graduated, the regulated scope of practice, and the presence of an enabling work environment.

The first State of the World's Midwifery Report found that, despite some promising developments in midwifery education, competency based midwifery curricula and professional development opportunities for midwifery educators in LMIC were lacking. Recommendations to build capacity for midwifery education remain on the international agenda and include a call for an increase in resources for midwifery education and supervised clinical practice for students.

As few as 6.6% of midwifery educators in LMIC have any formal preparation in education

Figure 1: Overview of the literature review process

International capacity builders who are culturally sensitive and have knowledge about the country, context and language are more likely to achieve improved outcomes

Method

A descriptive narrative synthesis was chosen for this integrative literature review. This method allows the findings of literature derived from qualitative and quantitative methods to be synthesized and identify gaps by extracting data and then grouping it to present common ideas or arguments. In total, 18 papers were selected, six research papers and 12 discursive papers and these groups were analyzed separately.

Findings

The papers described approaches to building educator capacity to improve teaching and practice across three key themes. These are: using curricula review to strengthen knowledge and skills in practice and teaching, building capacity in leadership, management and research skills, and finally, participation in communities of practice to increase access to information and resources (Figure 2).

Using curricula review/update to improve educator skills and knowledge

Seven papers focused on developing midwifery educator's skills and knowledge as part of the curricula review process.

International educators reported that national educators were sometimes reluctant to change their teaching methods and clinical practice

Other challenges related to the lack of a standardized curriculum and inconsistent approaches to supporting student's learning within the country, or within a region were described in the papers in the review. These challenges were found to create large variations in graduate competency which was complicated by the fact that the curriculum was not always aligned with national health plans.

A common theme across the papers was the inadequate quality and number of educators available to provide clinical supervision to students and a lack of competency-based assessment methods to assess student learning.

Improving educator's skills in leadership, management and research

Improving skills in leadership, management and research to build educator capacity was a theme identified in five discursive and one research paper.

Educators who participated in leadership training reportedly increased their levels of self-confidence, critical thinking and problem solving skills. In addition improved leadership skills were found to be associated with improved student outcomes, contributing to a quality workforce.

Two papers from China and Eritrea described the use of a study abroad model to formally upgrade midwifery educator's teaching qualifications specifically in leadership and management. However, studying abroad was not seen as a successful strategy, as educators did not always return to their home country after the training. Distance education modules were found to be beneficial to building educator's skills when used in combination with short residential training, and ongoing mentoring from international counterparts and national

peer support were highlighted as important approaches to ensure that leadership program objectives were met and learning outcomes achieved .

Two papers reported the benefits of including computer and internet literacy into the residential training of a leadership training program. Both studies found improvements in participant's confidence to use electronic methods to complete course requirements.

Three discursive and two research papers reported on the development of midwifery educator capacity through the establishment of communities of
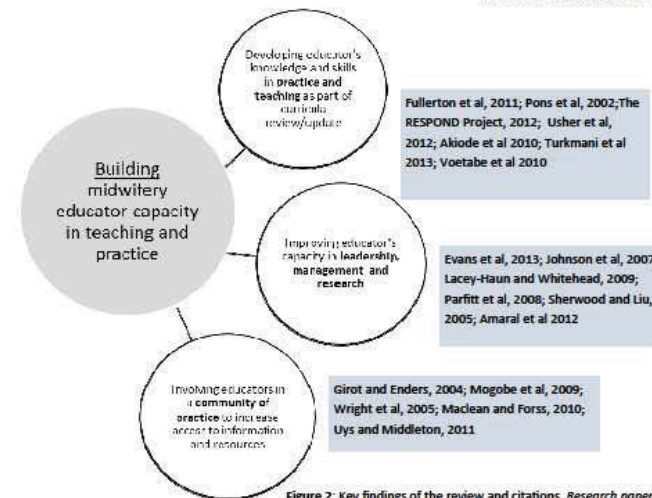

Figure 2: Key findings of the review and citations. *Research papers shown in italics.*

- Developing educator's knowledge and skills in practice and teaching as part of curricula review/update — Fullerton et al, 2011; Pons et al, 2002; The RESPOND Project, 2012; Usher et al, 2012; Akiode et al 2010; Turkmani et al 2013; Voetabe et al 2010

- Improving educator's capacity in leadership, management and research — Evans et al, 2013; Johnson et al, 2007; Lacey-Haun and Whitehead, 2009; Parfitt et al, 2008; Sherwood and Liu, 2005; Amaral et al 2012

- Involving educators in a community of practice to increase access to information and resources — Girot and Enders, 2004; Mogobe et al, 2009; Wright et al, 2005; Maclean and Forss, 2010; Uys and Middleton, 2011

Appendix 5: Ethics approval documents

4 March 2015

Prof Caroline Homer
Associate Dean (International and Development)
Faculty of Health
CB10.07.260
UNIVERSITY OF TECHNOLOGY, SYDNEY

Dear Applicant,

The UTS Human Research Ethics Committee reviewed your application titled, "Strengthening midwifery educator capacity in teaching and clinical practice in low and middle income countries", and agreed that the application meets the requirements of the NHMRC National Statement on Ethical Conduct in Human Research (2007). I am pleased to inform you that ethics approval is now granted.

Your approval number is UTS HREC REF NO. 2014000689 Your approval is valid five years from the date of this email.

Please note that the ethical conduct of research is an on-going process. The National Statement on Ethical Conduct in Research Involving Humans requires us to obtain a report about the progress of the research, and in particular about any changes to the research which may have ethical implications. This report form must be completed at least annually from the date of approval, and at the end of the project (if it takes more than a year). The Ethics Secretariat will contact you when it is time to complete your first report.

I also refer you to the AVCC guidelines relating to the storage of data, which require that data be kept for a minimum of 5 years after publication of research. However, in NSW, longer retention requirements are required for research on human subjects with potential long-term effects, research with long-term environmental effects, or research considered of national or international significance, importance, or controversy. If the data from this research project falls into one of these categories, contact University Records for advice on long-term retention.

If you have any queries about your ethics approval, or require any amendments to your research in the future, please do not hesitate to contact Research.Ethics@uts.edu.au.

Yours sincerely,

Professor Marion Haas
Chairperson
UTS Human Research Ethics Committee
C/- Research & Innovation Office
University of Technology, Sydney
T: (02) 9514 9645

This report is to be completed every twelve months following the date of ethics approval, and at the completion of your research project. To cross the check boxes, double click on the check box and tick checked (under default value). <u>Type</u> your responses into the box which expand to accommodate your answers. If you have any queries on how to complete this report, please contact the Research Ethics Officer (Ph.: 02/9514 9772).

Project Title: "Strengthening midwifery educator capacity in teaching and clinical practice in low and middle income countries"

UTS HREC Approval Number: UTS HREC 2014000689

Current status of project: (Double click on box and mark 'checked')	
☐ **Not yet commenced** (you have not commenced recruitment or data collection)	Estimated commencement date:
☒ **In Progress** (You have commenced research **or** have put the research on hold)	Estimated completion date: January 2018
☐ **Completed** (You have completed data collection and first stage analysis of data)	Approximate completion date:
☐ **Discontinued** (You have withdrawn **or** stopped the research due to insufficient or suspension of funding, **or** have stopped the research for another reason)	Approximate discontinued date:

Position	Name (include title)	Contact number	Email	Period of involvement
Chief Investigator/ Supervisor	Prof. Caroline Homer	+61 2 9514 4886	Caroline.homer@uts.edu.au	Jan 2014 - current
Co-investigator	Dr. Angela Dawson	+61 2 9514 4892	Angela.dawson@uts.edu.au	Jan 2014 - current

(Student)	Florence West	+[REDACTED]	Florence.west@student.uts.edu.au	Jan 2014 - current

(Note: copy this section as required to accommodate the number of investigators)

1. **Are you requesting an extension to your project?**
Please tick Yes or No. If yes, please justify why you require an extension to your HREC approval. Your request will be reviewed by the UTS HREC Chairperson.

   Tip: *If you submitted a full application form, you would have received a standard 5 years approval. All other forms are subject to different approval periods.*

   Please note: Extensions are for 1 year. A maximum of 2 extension requests can be given per project before a new ethics application is required.

(a)   Yes ☐   No ☒

2. **Have there been any changes to your research project since ethics approval was granted or since your last progress report?**
<u>*Please tick Yes or No to the options below.*</u> *If yes, please outline and explain the reasons for any changes that have occurred in any of the following areas in the boxes provided:*

(Note: major changes may require an <u>amendment application form</u>. Please contact the Research Ethics Officer on 02/9514 9772 or email <u>Research.Ethics@uts.edu.au</u> if you are unsure)

(a)   Participating investigators

Yes ☐   No ☒

(b)   Procedures or methodology

Yes ☐   No ☒

(c)   Data collection instruments (surveys/questionnaires/interview questions)

Yes ☐   No ☒

(d)   Has an amendment application been submitted for any of these changes? *Note: changes to personnel do not require an amendment application.*

Yes ☐   No ☒

3. **Did any of the following events occur?** *Please tick Yes or No. If yes, please give details of the event, and how it was resolved or addressed.*

(a)   Unforeseen ethical or other difficulties during your research

Yes ☐   No ☒

(b)   Adverse effects for your subjects /participants

Yes ☐   No ☒

(c)   Complaints received from participants or other persons involved in the research

Yes ☐   No ☒

4. **How and where have you stored the data you have collected?** *Please give details (e.g. coded on computer, files, etc.)*

Data is stored on my personal password protected computer and will be kept for a minimum of 5 years as per the UTS policy for data storage and record management. A back up copy of the de-identified data is also saved on the UTS OXYGEN secure cloud storage platform. Data and codes are stored in separate files.

5. **What steps have you taken to ensure the confidentiality of your participants?**
   Please give details (e.g. de-identified data, password protected, locked filing cabinet, limited access to data, etc.)

Participant names will not be used on interview guides or survey instruments. An alpha-numeric code will be used to differentiate between participants from Phase 1 and Phase 2 of the study. De-identified data is stored in a personal password protected computer. Only supervisors and the research student have access to the data.

6. **Are you planning to publish or have you published the results of your research?**
   Please tick Yes or No. If yes, please provide the reference and attach a copy of any articles or abstracts.

Yes ☒ No ☐

A literature review has been published. REF: West, F., Homer. C., and Dawson, A. 2016. Building midwifery educator capacity in teaching in low and lower-middle income countries. A review of the literature. Midwifery 33; 12-23.

Planned publication titles include: "Working together to build midwifery educator capacity in teaching. Perspectives of Papua New Guinean midwifery educators." To be submitted to Midwifery and/or Journal of Midwifery and Women's Health by end of March 2016.

"Using the Theory of Planned Behavior to inform building midwifery educator capacity in teaching in low and middle income countries. Findings from a mixed method study." To be submitted to International Journal of Nursing and Midwifery and/or International Journal of Childbirth by end of June 2016.

7. **Additional Comments?** *Please add any further information you feel may be relevant.*

DECLARATION

I declare that the information I have given above is true and that my research has contravened neither the *National Statement on Ethical Conduct in Human Research (2007);* the Commonwealth Privacy Act 1998 (NSW); Privacy and Personal Information Protection Act (1998); the Australian Privacy Principles (2014), nor the UTS policy, directives and guidelines relating to the ethical conduct of research involving human participants.

I also declare that I have respected the personality, rights, wishes, beliefs, consent and freedom of the individuals in the conduct of my research and that I have notified the UTS Human Research Ethics Committee of any ethically relevant variation in this research.

Production Note:
Signature removed prior
to publication.   Date: 14/3/2016

Chief Investigator/Supervisor   **Professor Caroline Homer**

Production Note:
Signature removed prior
to publication.   Date: 14/3/2016

Student (if applicable)   **Florence West**

Government of Papua New Guinea
Medical Research Advisory Committee
National Department of Health

PO Box 807
WAIGANI 131, NCD
Papua New Guinea

Phone: + (675) 301 3650
Fax: + (675) 323 9670
Email: urarang_kitur@health.gov.pg

Collected from PNG NDoH MRAC office

By Amanda Neill on Monday 1 December 2014

Prof. Caroline Homer
WHO Collaborating Centre for Nursing,
Midwifery and Health Development
Faculty of Nursing, Midwifery and Health
University of Technology, Sydney
P.O Box 123 Broadway
NSW 2007 Australia

Dear Professor Caroline Homer,

This is to certify that the proposal:

"Evaluation of the Maternal and Child Health Initiative (MCHI) (Phase II)."

Resubmitted by you has been examined by the Medical Research Advisory Committee of Papua New Guinea

The MRAC acknowledged and accept these requirements provided and approve the study to be done in Papua New Guinea and assigned **MRAC 14.18.**

The Medical Research Advisory Committee of Papua New Guinea act as the National Ethical Clearance Committee and advises that there is no further bar to this project being carried out in Papua New Guinea.

Investigators are reminded of the importance of keeping provincial health and research authorities informed about their study and its progress, and of submitting progress and outcome reports to the Medical Research Advisory Committee.

Yours sincerely,

Dr. Urarang Kitur
Chairperson

cc   Professor Peter Siba

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Appendix 6: Samples of consent form and participant information sheet

UNIVERSITY OF TECHNOLOGY SYDNEY

INFORMATION SHEET

Approaches to strengthening midwifery educator capacity in low and middle income countries:

Phase 1– interviews with participants in Papua New Guinea (UTS HREC 2014000689)

WHO IS DOING THE RESEARCH?

My name is Florence West and I am a PhD Health student at UTS. My supervisors are Professor Caroline Homer and Dr. Angela Dawson. Dr. Nina Joseph from the PNG Nursing Council is also an advisor to this project.

WHAT IS THIS RESEARCH ABOUT?

This research is to understand how the Papua New Guinea Maternal and Child Health Initiative (PNG MCHI) approach to building midwifery educator capacity has contributed to the strengthening of midwifery teaching and clinical practice in Papua New Guinea and to explore the strengths and challenges associated with the approach.
You have been asked to participate because you are a midwifery educator in PNG – either a national educator or course coordinator or one of the Clinical Midwifery Facilitators working on the MCHI.

IF I SAY YES, WHAT WILL IT INVOLVE?

I will ask you to participate in an interview, lasting approximately 30-45 minutes. The interview will take place face to face, or on the phone or skype – whichever is most appropriate.

Interview questions will include these listed below:

- How long have you been a midwife?
- How long have you worked in an institution in a midwifery education role?
- What education/training have you completed?
- What do you see as the advantages and/or disadvantages of strengthening midwifery education and clinical facilitation of students?
- Who supported and/or opposed your implementation of improved methods of teaching or clinical practice in the institution and in the clinical area?
- What aspects of the PNG MCHI have made it easy and/or difficult for you to improve the standard of midwifery teaching and practice?

ARE THERE ANY RISKS/INCONVENIENCE?

There are very few if any risks to you. However, it is possible talking about your experiences may be upsetting. The interview can be paused at any time and restarted at a later time. We can arrange for

you to debrief with a person external to the research if you are distressed. Our PNG advisor, Dr. Nina Joseph, is also available for you to talk to about any concerns.

A transcript of the interview may be provided for you to review if you want to check that your views have been correctly expressed. Your privacy is important to us and confidentiality will be maintained throughout the research. All notes and interview recordings will be de-identified. No names will be written on the interview or survey tools and you will not be identified in any reports, papers or in the PhD thesis.

Prof Homer will also only see de-identified data and will not be able to identify individual comments to further protect the identity of the participants. Participating in this study and your responses will not impact on your current employment, performance review or future employment.

WHY HAVE I BEEN ASKED?

You are able to give me the information I need to find out about the strengths and challenges associated with the PNG MCHI approach to strengthening midwifery education.

DO I HAVE TO SAY YES?

You don't have to say yes. Participating in this study is completely up to you.

WHAT WILL HAPPEN IF I SAY NO?

Nothing. I will thank you for your time so far and won't contact you about this research again. Saying no will not affect your employment or engagement with the MCHI and will not impact on your current or future employment or your professional or personal life.

IF I SAY YES, CAN I CHANGE MY MIND LATER?

You can change your mind at any time and you don't have to say why. We will thank you for your time so far and won't contact you about this research again.

WHAT IF I HAVE CONCERNS OR A COMPLAINT?

If you have concerns about the research that you think I or my supervisor/s can help you with, please feel free to contact me (us) on Florence.west@student.uts.edu.au caroline.homer@uts.edu.au angela.dawson@uts.edu.au nina.joseph@health.gov.pg

If you would like to talk to someone who is not connected with the research, you may contact the Research Ethics Officer on 02 9514 9772, and quote this number UTS HREC 2014000689.

CONSENT FORM: PHASE 1– interviews with participants in Papua New Guinea

I _____ *(participant's name)* agree to participate in the research project *Approaches to strengthening midwifery educator capacity in low and middle income countries: Phase 1* (UTS HREC 2014000689) being conducted by Florence West, PO Box 123, Broadway, NSW 2007, ph. +_____ of the University of Technology, Sydney for her degree C02024 Doctor of Philosophy, Health. Professor Caroline Homer and Dr. Angela Dawson are the supervisors for this study. Dr. Nina Joseph from the PNG Nursing Council is also an advisor to this project. This research is supported by the Papua New Guinea Maternal and Child Health Initiative (MCHI).

I understand that the purpose of this study is to understand how the PNG MCHI approach to building midwifery educator capacity has contributed to the strengthening of midwifery teaching and clinical practice in Papua New Guinea and to explore the strengths and challenges associated with the approach.

I understand that I have been asked to participate in this research because I am a midwifery educator working in the Papua New Guinea Maternal and Child Health Initiative and that my participation in this research will involve participating in an interview, lasting approximately 30-45 minutes. The interview will take place face to face, or on the phone or skype – whichever is most appropriate. I understand that there is a chance that talking about my experiences may be upsetting and the researcher/s have talked with me about how to this will be addressed this it happens.

I am aware that I can contact Florence West or her supervisors Caroline Homer or Angela Dawson, or my PNG advisor Nina Joseph, if I have any concerns about the research. I also understand that I am free to withdraw my participation from this research project at any time I wish, without consequences, and without giving a reason.

I agree that the researcher/s has answered all my questions fully and clearly.

I agree that the research data gathered from this project may be published in a form that does not identify me in any way.

_____   ____/____/____

Signature (participant)

_____   ____/____/____

Signature (researcher or delegate)

NOTE: This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer (ph: +61 2 9514 9772 Research.Ethics@uts.edu.au) and quote the UTS HREC reference number. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

Appendix 7: Sample of Phase 1 interview guide questions

Phase 1 interview question guide: PNG midwifery educators

How can midwifery educator capacity in LMIC be strengthened and improved?

1. Tell me about when and how you came to be a midwife.

2. Tell me about when and how you came to be a midwifery educator.

3. What qualities/skills are important to you in your work as a midwifery educator and why?

4. What further study, training or experience would help you in your role as midwifery educator? What opportunities are available to you?

5. Working in a cross-cultural environment with international consultants is one way for both parties to learn new things. What have you taught the international consultant working with you? What have you learnt from them?

6. What motivates you to work with the international consultant?

7. What advice would you give a new midwifery educator to prepare them for working with an international consultant?

Phase 1 interview question guide: International Clinical Midwifery Facilitators

How can midwifery educator capacity in LMIC be strengthened and improved?

1. Tell me about when and how you came to be a midwife.

2. Tell me about when and how you came to be a midwifery educator.

3. What qualities/skills are important to you in your work as a midwifery educator and why?

4. What further study, training or experience would help you in your role as midwifery educator? What opportunities are available to you?

5. Working in a cross-cultural environment is one approach to capacity development. What have you taught your PNG counterpart, what have you learnt from them?

6. What motivates you to come and work in PNG?

7. What advice would you give a new CMF to prepare them for working with a PNG midwifery educator?

Phase 1 interview question guide: Both PNG midwifery educators and International CMF

Additional questions related to the study's underpinning theoretical framework – the theory of planned behavior.

BEHAVIORAL BELIEFS/ATTITUDE TOWARD THE BEHAVIOUR

(CMF) What do you see as the benefits of strengthening midwifery educator's capacity in teaching and clinical facilitation?

(National) What do you see as the benefits of strengthening your skills and knowledge in teaching and clinical facilitation of students?

(CMF) Tell me about any personal challenges you may have experienced when trying to strengthen midwifery educator's capacity?

(National) Tell me about any personal challenges you may have experienced when learning new methods of teaching and clinical facilitation?

NORMATIVE BELIEFS/SUBJECTIVE NORM

What people or processes supported/facilitated your implementation of improved methods of theoretical and clinical teaching?

Tell me about any barriers you have faced from people or processes when trying to implement improved teaching methods?

CONTROL BELIEFS/PERCEIVED BEHAVIOURAL CONTROL

What aspects of the PNG MCHI approach to capacity building have made it easy and/or difficult for you to improve the standard of midwifery teaching and practice?

Appendix 8: Description of how Phase 1 findings were used to develop Phase 2 survey

Phase 1 theme	Phase 2 survey questions
Knowing your capabilities	Do you think assessing yourself against the Midwifery Educator Core Competencies (World Health Organization 2013) would help you to monitor and evaluate your professional capabilities? Do you think being more aware of your professional capabilities would help you to improve midwifery teaching?
Being able to build relationships	What aspect of working with your colleague do you feel is most rewarding? What aspect of working with your colleague do you feel is most challenging? Do you feel that knowledge is shared both ways? Do you feel working side-by-side in the education institution enables improved midwifery teaching? Do you feel working side-by-side in the clinical placement site enables improved midwifery teaching?
Being motivated to improve the health status of women and newborns	Which of the following factors motivates you to improve midwifery teaching? (state your agreement with the following options) • Having a specific goal to work towards • Having written roles and responsibilities • Having incentives for performance • Starting with an easy task and gradually getting more difficult • Having social pressure • Being spoken to in a motivational manner • Knowing the likely outcome of a behaviour • Improve the health status of women and newborns
Having a mutual understanding of the capacity building project	Do you have a written work or activity plan for how to work together with your colleague? Who created the work/activity plan? Do you think having a written work/activity plan would enable improved midwifery teaching?
Preparing stakeholders for working together in a capacity building project	In your experience working together to improve midwifery teaching, how important is it to have the following factors? (state your agreement with the following options)

Phase 1 theme	Phase 2 survey questions
	• Willingness to work together collaboratively • Mutually developed and documented roles and responsibilities • Up-to-date clinical skills • A formal adult-education qualification • Confidence to use student-centered teaching methods • Access to contemporary midwifery research • Midwifery practice of clinical colleagues aligned with curriculum • Other
Knowing how to adapt to a different culture	Do you feel you have an understanding of your colleague's culture? Do you feel you were adequately prepared to work in a cross-cultural context? What additional cultural knowledge or skills would enable you to be more effective in your role? (state your agreement with the following options) • Language skills • Previous travel outside home country • Previous work experience in LMIC • Knowledge about different learning styles • Knowledge about different communication styles • Knowledge of how the culture is oriented to time • Knowledge of the influence of hierarchy • Knowledge of gender roles • knowledge of the degree to which the culture adheres to social norms • Knowledge of the degree to which the culture accepts individuality • Other
Having an enabling environment which supports improved midwifery education	How much do the following environmental factors constrain your ability to improve midwifery teaching? (state your agreement with the following options) • Insufficient midwifery educator workforce • Lack of positive role models • Poor quality professional workplace appraisal/performance review • Lack of resources for clinical laboratory simulation and training • Midwifery regulatory body not functioning • Other What do you think are the elements that make up a supportive working environment?

Appendix 9: Sample of Phase 2 survey: International educator version

1. Participant information and consent

My name is Florence West, I am a midwife and a PhD Health student at University of Technology Sydney (UTS). My supervisors are Professor Caroline Homer and Dr Angela Dawson. We have ethics approval from the UTS Human Research Ethics Committee (HREC).

This research is to understand how capacity building processes in midwifery education have been able to build midwifery educator's capacity in theory and clinical teaching and to explore the strengths and challenges associated with the capacity building process.

It is expected that findings from this research will contribute to improving capacity building processes for midwifery educators working in low and middle income countries and potentially improve the quality of midwifery education.

If you have questions about the research that you think I or my supervisor/s can help you with, please feel free to contact me by email: Florence.west@student.uts.edu.au

If you would like to talk to someone who is not connected with the research, you may contact the Research Ethics Officer on telephone +61 2 9514 9772, and quote this number UTS HREC Approval Number: 2014000689

We thank you for your valuable contribution.

1. I have read the information and I consent to participate in this research

○ Yes

○ No

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2. Participant information

* 2. Do you identify with being an international expatriate educator?

○ Yes

○ No

3. Participant Sample

Survey of educators working in education institutions in low or middle income countries.
Do you identify with all of the following? (please select all that apply)

* 3. Are you currently, or in the last two years been working in an education institution for more than 3 months in a low or middle income country which educates midwives?

○ Yes

○ No

* 4. Are you currently or were you in the last two (2) years working together with a national/local educator for more than 3 months?

○ Yes

○ No

* 5. Are you currently or were you in the last two years participating in a capacity building process lasting more than 3 months which aimed to strengthen midwifery educator teaching?

○ Yes

○ No

4. Demographic Details

The following questions will gather information regarding your:
Demographic information
Professional details and
Travel experience to a low and middle income country (LMIC)

* 6. What is your age?

○ 18 to 24

○ 25 to 34

○ 35 to 44

○ 45 to 54

○ 55 to 64

○ 65 to 74

○ 75 or older

* 7. What is your gender?

○ Female

○ Male

* 8. What is your country of birth?

[   ]

[   ]

4. Demographic Details

The following questions will gather information regarding your:
Demographic information
Professional details and
Travel experience to a low and middle income country (LMIC)

* 6. What is your age?

- ( ) 18 to 24
- ( ) 25 to 34
- ( ) 35 to 44
- ( ) 45 to 54
- ( ) 55 to 64
- ( ) 65 to 74
- ( ) 75 or older

* 7. What is your gender?

- ( ) Female
- ( ) Male

* 8. What is your country of birth?

[   ]

[   ]

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* 12. What is your highest completed qualification level?

○ Secondary School

○ Trade school

○ Undergraduate Certificate

○ Undergraduate Diploma

○ Undergraduate Bachelor Degree

○ Postgraduate Diploma/Certificate

○ Masters Degree

○ PhD/Doctorate Degree

○ Other (please specify)

[   ]

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6. Information about your general experience living abroad in a low or middle income country (LMIC)

* 13. Have you ever worked/studied or lived abroad in a LMIC

○ Yes, I have

○ No, I have not

7. Information about your general experience working/studying or living abroad in a LMIC

14. Which countries have you lived in, how long were you there and what was your role?

Country/ies

Length of time

Role

8. Information about any previous experience you have working in a capacity building role

Excluding your current or within past 2 years experience

* 15. Have you ever been involved in the capacity building process before?

○ Yes, I have

○ No, I have not

9. Information about any previous experience working in a capacity building role

16. Who was the employer (NGO, UN agency, Donor agency, University etc), what country were you in, what aspect of capacity building was the focus of the training/development, what was your position, how long were you employed?

Employer

Country

Aspect of capacity building

Position

Length of time employed

10. Information about your current or within 2 years experience

The following questions gather information about your experience working to strengthen midwifery educator's capacity in teaching

* 17. Who is/was the employer (NGO, UN agency, Donor agency, University etc), what country are/were you in, what aspect of capacity building is/was the focus of the training/development, what is/was your role, how long have you been/were you employed?

Employer	
Country	
Aspect of capacity building	
Role	
Length of time employed	

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11. Information about your current or within 2 years experience

The following questions are related to knowing your professional capabilities.
The World Health Organization (2013) Midwifery Educator Core Competencies offers a starting
point for defining attributes of midwifery educator competency.
www.who.int/hrh/nursing_midwifery/educator_competencies/en/

* 18. Do you think assessing yourself against these international guidelines at the start, during and at the end of the capacity building process would help you to monitor and evaluate your professional capabilities?

Strongly disagree	○
Disagree	○
Neither disagree or agree	○
Agree	○
Strongly agree	○

Comments (please specify)

* 19. Do you think being more aware of your professional capabilities would help you to improve midwifery teaching?

Strongly disagree	○
Disagree	○
Neither disagree or agree	○
Agree	○
Strongly agree	○

Comments (please specify)

12. The following questions are related to building relationships

* 20. What aspect of working with your national colleague do you feel is most rewarding?

* 21. What aspect of working with your national colleague do you feel is most challenging?

* 22. Specifically related to working in a capacity building process, when working with your national colleague, do you feel that knowledge is shared both ways?

Never	○
Rarely	○
Sometimes	○
Most of the time	○
Always	○

Comments (please specify)

* 23. Do you feel working side-by-side with your national colleague when you are in the education institution enables you to strengthen midwifery teaching?

Never	○
Rarely	○
Sometimes	○
Most of the time	○
Always	○

Comments (please specify)

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* 24. Do you feel working side-by-side with your national colleague when you are in the clinical practice site enables you to strengthen midwifery teaching?

Never	○
Rarely	○
Sometimes	○
Most of the time	○
Always	○

Comments (please specify)

[   ]

* 25. In what way/s would you like your national colleague to support you to improve midwifery teaching?

[   ]

13. The following questions are related to your motivations to improve midwifery teaching

* 26. Which of the following factors motivates you to improve midwifery teaching?

	Extremely motivated	Very motivated	Somewhat motivated	Not so motivated	Not at all motivated
Having a specific goal (behavior or outcome) to work towards	○	○	○	○	○
Having a written employment contract which outlines roles and responsibilities	○	○	○	○	○
Having incentives for performance	○	○	○	○	○
Starting with an easy task and gradually getting more difficult	○	○	○	○	○
Having social pressure, encouragement and/or support	○	○	○	○	○
Being spoken to in a motivational manner by a colleague	○	○	○	○	○
Knowing the likely outcome (positive or negative) of a behavior	○	○	○	○	○
Improve the health status of women and newborns	○	○	○	○	○

Comments (please specify)

[   ]

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14.

The following questions are relating to having a mutual understanding of the capacity building process

* 27. Do you have written work/activity plan for how to work together with your national colleague?

  ◯ Yes

  ◯ No

15.

The following questions are relating to having a mutual understanding of the capacity building process

* 28. Who created/wrote the activity/work plan?

◯ International educator

◯ National educator

◯ Mutually developed

◯ Other (please specify)

[   ]

16.

* 29. Do you think having a written work/activity plan between national and international midwifery educators enables/would enable improved midwifery teaching?

○ Extremely enabling

○ Very enabling

○ Somewhat enabling

○ Not so enabling

○ Not at all enabling

Comments (please specify)

[   ]

17.

The following questions are related to the preparation of international and national educators to work together to strengthen midwifery teaching

* 30. In your experience working to improve midwifery teaching, how important is it to have the following factors?

	Extremely important	Very important	Somewhat important	Not so important	Not at all important
Willingness to work together collaboratively	○	○	○	○	○
Mutually developed and documented roles and responsibilities	○	○	○	○	○
Up-to-date clinical skills	○	○	○	○	○
A formal adult-education qualification	○	○	○	○	○
Confidence to use student-centered teaching methods to facilitate critical thought	○	○	○	○	○
Access to contemporary midwifery evidence and research	○	○	○	○	○
Midwifery practice of clinical colleagues aligned with what is being taught in education institution	○	○	○	○	○

Other (please specify)

[   ]

18.

The following questions are related to adapting to a different culture

* 31. Do you feel you have an understanding of your national colleague's culture?

○ Extremely good understanding

○ Very good understanding

○ Somewhat good understanding

○ Not so good understanding

○ No understanding

Comment (please specify)

[   ]

* 32. Do you feel you were adequately prepared to work in a cross-cultural context?

○ Extremely well prepared

○ Very well prepared

○ Somewhat prepared

○ Not so well prepared

○ Not prepared at all

Comment (please specify)

[   ]

* 33. What additional cultural knowledge or skills would enable you to be more effective in your role? (mark all that apply)

- [ ] Language skills
- [ ] Previous travel outside home country
- [ ] Previous work experience in LMIC
- [ ] Knowledge about different learning styles
- [ ] Knowledge about different communication styles
- [ ] Knowledge of how the culture is oriented to time
- [ ] Knowledge of the influence of hierarchy
- [ ] Knowledge of gender roles
- [ ] Knowledge of the degree to which the culture adheres to social norms
- [ ] Knowledge of the degree to which the culture accepts individuality
- [ ] Other (please specify)

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19.

The following questions are related to the need for a supportive environment

* 34. How much do the following environmental factors constrain your ability to improve midwifery teaching?

	Extremely constraining	Very constraining	Somewhat constraining	Not so constraining	Not constraining at all
Insufficient midwifery educator workforce	○	○	○	○	○
Lack of positive role models	○	○	○	○	○
Poor quality professional workplace appraisal (ie: performance review)	○	○	○	○	○
Lack of resources for clinical laboratory simulation and training	○	○	○	○	○
Midwifery regulatory body not functioning	○	○	○	○	○

Other (please specify)

* 35. What are the elements that you think make up a supportive working environment?

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20. General comments

36. Do you have any other comments, questions, or concerns regarding the capacity building process to strengthen midwifery educator teaching in LMIC?

References

Ajzen, I. 1991, 'The theory of planned behavior', *Organizational behavior and human decision processes*, vol. 50, pp. 179-211.

Ajzen, I. & Fishbein, M. 1980, *Understanding attitudes and predicting social behavior*, Prentice-Hall, Englewood Cliffs.

Akiode, A., Fetters, T., Daroda, R., Okeke, B. & Oji, E. 2010, 'An evaluation of a national intervention to improve the postabortion care content of midwifery education in Nigeria', *International Journal of Gynaecology and Obstetrics*, vol. 110, no. 2, pp. 186-90.

Algeo, C. 2015, 'Developing the 'heads and feet' of the next generation of project managers', *National 2015 Conference*, Australian Institute of Project Managment, Hobart, pp. 12-27.

Amaral, E., Campos, H.H., Friedman, S., Morahan, P.S., Araujo, M.N., Carvalho, P.M., Bollela, V., Ribeiro, M.G., Mennin, S., Haddad, A.E. & Campos, F. 2012, 'An educational international partnership responding to local needs: process evaluation of the Brazil FAIMER Regional Institute', *Education for Health*, vol. 25, no. 2, pp. 116-23.

Australian Agency for International Development 2011, 'Use of Advisors in the Australian Aid Program. Guidance Note 1: Operational Policy Implementation Checklist', in Australian Government (ed.) Canberra.

Australian Government 2005, *Cultural Competency in Health: A guide for policy, partnerships and participation*, Commonwealth of Australia, Canberra.

Bacon, A., Ellis, C., Rostoker, J.-F. & Olaro, A.A. 2014, 'Exploring the role of midwives in Uganda's postabortion care: current practice, barriers, and solutions', *International Journal of Childbirth*, vol. 4, no. 1, pp. 1-14.

Bandura, A. 2001, 'Social Cognitive Theory and Clinical Psychology', *International Encyclopedia of the Social and Behavioral Sciences*, pp. 14250-4.

Bandura, A. 2004, 'Health promotion by social cognitive means', *Health Education and Behavior*, vol. 31, no. 2, pp. 143-64.

Bates, I., Akoto, A., Ansong, D., Karikari, P., Bedu-Addo, G., Critchley, J., Agbenyega, T. & Nsiah-Asare, A. 2006, 'Evaluating health research capacity building: An evidence-based tool', *PLoS Medicine*, vol. 3, no. 8, pp. 1224 - 9.

Baxter, P. & Jack, S. 2008, 'Qualitative case study methodology: Study design and implementation for novice researchers', *The Qualitative Report*, vol. 13, no. 4 December, pp. 544-59.

Beach, M.C., Price, E.G., Gary, T.L., Robinson, K.A., Gozu, A., Palacio, A., Smarth, C., Jenckes, M.W., Feuerstein, C., Bass, E.B., Powe, N.R. & Cooper, L.A. 2005, 'Cultural competence. A systematic review of health care provider educational interventions.', *Medical Care*, vol. 43, no. 4, pp. 356-73.

Bogren, M.U., Wiseman, A. & Berg, M. 2012, 'Midwifery education, regulation and association in six South Asian countries - A descriptive report', *Sexual and Reproductive Healthcare*, vol. 3, pp. 67-72.

Boshoff, N. 2010, 'South-South research collaboration of countries in the Southern African Development Community (SADC)', *Scientometrics*, vol. 84, pp. 481-503.

Boyd, P. & Lawley, L. 2009, 'Becoming a lecturer in nurse education: the work-place learning of clinical experts as newcomers', *Learning in Health and Social Care*, vol. 8, no. 4, pp. 292-300.

Bradbury-Jones, C. 2007, 'Enhancing rigor in qualitative health research: exploring subjectivity through Peshkin's I's', *Journal of Advanced Nursing*, vol. 59, no. 3, pp. 290-8.

Braun, V. & Clarke, V. 2006, 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, vol. 3, pp. 77-101.

Bray, L., O'Brien, M.R., Kirton, J., Zubairu, K. & Christiansen, A. 2013, 'The role of professional education in developing compassionate practitioners: A mixed methods study exploring the

perceptions of health professionals and pre-registration students.', *Nurse Education Today*, vol. 34, pp. 480-6.

Brideson, G., Glover, P. & Button, D. 2012, 'Flight nurses in Australia: Maintaining their midwifery competence - a case study', *Contemporary Nurse*, vol. 43, no. 1, pp. 121-30.

Brodie, P.M. 2013, ''Midwifing the midwives': Addressing the empowerment, safety of, and respect for, the world's midwives. ', *Midwifery*, vol. 29, no. 10, pp. 1075-6.

Burns, E., Fenwick, J., Schmied, V. & Sheehan, A. 2012, 'Reflexivity in midwifery research: The insider/outsider debate', *Midwifery*, vol. 28, pp. 52-60.

Butterfoss, F. 2006, 'Process evaluation for community participation', *Annual Review of Public Health*, vol. 27, pp. 323 - 40.

Callister, L.C. 2001, 'Culturally competent care of women and newborns: Knowledge, attitude, and skills', *Journal of Obstetric Gynecologic and Neonatal Nursing*, vol. 30, no. 2, pp. 209-15.

Cameron, R. 2009, 'A sequential mixed model research design: design, analytical and display issues', *International Journal of Multiple Research Approaches*, vol. 3, no. 2, pp. 140-52.

Campinha-Bacote, J. 2009, *Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R)*, viewed October 2016, <www.transculturalcare.net/iapcc-r.htm>.

Christ, T.W. & Makarani, S.A. 2014, 'Teachers' attitudes about teaching English in India: An embedded mixed methods study', *International Journal of Multiple Research Approaches*, vol. 3, no. 1, pp. 73-87.

Christofides, N.J., Nieuwoudt, S., Usdin, S., Goldstein, S. & Fonn, S. 2013, 'A South African university-practitioner partnership to strengthen capacity in social and behaviour change communication.', *Global Health Action*, vol. 6, no. 19300, pp. 67-74.

Clayton, L.H. 2006, 'Concept Mapping: An effective, active teaching-learning method', *Nursing Education Perspectives*, vol. 27, no. 4, pp. 197-203.

Coast, E., Jones, E., A., P. & Lattof, S.R. 2014, 'Maternity Care Services and Culture: A Systematic Glabal Mapping of Interventions', *PLoS ONE*, vol. 9, no. 9, pp. 1-17.

Cote, F., Gagnon, J., Houme, P.K., Abdeljelil, A.B. & Gagnon, M. 2011, 'Using the Theory of Planned Behavior to predict nurses' intention to integrate research evidence into clinical decision-making', *Journal of Advanced Nursing*, vol. 68, no. 10, pp. 2289-98.

Creswell, J.W. 2009, *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches.*, Sage Publications Inc., Thousand Oaks.

Creswell, J.W. 2013, *Research Design. Qualitative, quantitative and mixed methods approaches. 4th Edition*, Sage Publications, Inc., Thousand Oaks.

Crisp, B., Swerissen, H. & Duckett, S. 2000, 'Four approaches to capacity building in health: consequences for measurement and accountability', *Health Promotion International*, vol. 15, no. 2, pp. 99 - 107.

Crotty, M. 1998, 'The research process', *The foundations of social research: Meaning and perspective in the research process*, Allen and Unwin, Sydney.

Cushman, L.F., Delva, M., Franks, C.L., Jimenez-Bautista, A., Moon-Howard, J., Glover, J. & Begg, M.D. 2015, 'Cultural competency training for public health students: Integrating self, social, and global awareness into a Master of Public Health curriculum.', *American Journal of Public Health*, vol. 105, no. S1, pp. S132-S40.

Dawson, A., Brodie, P.M., Copeland, F., Rumsey, M. & Homer, C.S.E. 2014, 'Collaborative approaches towards building midwifery capacity in low income countries: A review of experiences.', *Midwifery*, vol. 30, no. 4, pp. 391-402.

Dawson, A. & Homer, C.S.E. 2013, 'Managing the International Humanitarian and Development Health Workforce- a review of experiences and needs', *Asia Pacific Journal of Health Management*, vol. 8, no. 1, pp. 14-23.

Dawson, A., Kililo, M., Geita, L., Mola, G., Brodie, P.M., Rumsey, M., Copeland, F., Neill, A. & Homer, C.S.E. 2016, 'Midwifery capacity building in Papua New Guinea: Key achievements and ways forward.', *Women and Birth*, vol. 29, pp. 180-8.

Dawson, A., Nkowane, A.M. & Whelan, A. 2015, 'Approaches to improving the contribution of the nursing and midwifery workforce to increasing universal access to primary health care for vulnerable populations: a systematic review', *Human Resources for Health*, vol. 13, no. 97. http://doi.org/10.1186/s12960-015-0096-1

Day-Stirk, F., and Fauveau, V. 2012. The state of the world's midwifery: Making the invisible visible. *International Journal of Gynecology and Obstetrics.* 119, pp. S39-41.

De Briganti, N. 2015, 'A review of stakeholder managment: The case for social networks. ', *National 2015 Conference*, Australian Institute of Project Management, Hobart, pp. 46-61.

DeSouza, R. 2008, 'Wellness for all: the possibilities of cultural safety and cultural competence in New Zealand', *Journal of Research in Nursing*, vol. 13, no. 2, pp. 125-37.

Eskerod, P. & Huemann, M. 2013, 'Sustainable development and project stakeholder managment: what standards say', *International Journal of Managing Projects in Business*, vol. 6, no. 1, pp. 36-50.

Evans, C., Razia, R. & Cook, E. 2013, 'Building nurse education capacity in India: insights from a faculty development programme in Andhra Pradesh', *BioMed Central Nursing*, vol. 12, no. 8, pp. 1-8.

Fee, A. & Gray, S.J. 2013, 'Transformational learning experiences of international development volunteers in the Asia-Pacific: The case of a multinational NGO', *Journal of World Business*, vol. 48, no. 2, pp. 196-208.

Fee, A., Gray, S.J. & Lu, S. 2013, 'Developing cognitive complexity from the expatriate experience: Evidence from a longitudinal field study', *International Journal of Cross Cultural Management*, vol. 13, no. 3, pp. 299-318.

Fee, A., McGrath-Champ, S. & Yang, X. 2011, 'Expatriate performance management and firm internationalization: Australian multinationals in China', *Asia Pacific Journal of Human Resources*, vol. 49, no. 3, pp. 365-84.

Forss, K. & Maclean, G.D. 2007, *The African Midwives Research Network*, SIDA, Department for Democracy and Social Development, Stockholm.

Franco, L.M. & Marquez, L. 2011, 'Effectiveness of collaborative improvement: evidence from 27 applications in 12 less-developed and middle-income countries', *BMJ Quality and Safety*, vol. 20, no. 8, pp. 658-65.

Fraser, D.M., Avis, M. & Mallik, M. 2013, 'The MINT project - An evaluation of the impact of midwife teachers on the outcomes of pre-registration midwifery education in the UK', *Midwifery*, vol. 29, pp. 86-94.

French, S.D., Green, S.E., O'Connor, D.A., McKenzie, J.E., Francis, J.J., Michie, S., Buchbinder, R., Schattner, P., Spike, N. & Grimshaw, J.M. 2012, 'Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework', *Implementation Science*, vol. 7, no. 38, pp. 1-8.

Frenk, J., Chen, L., Bhutta, Z.A., Cohen, J., Crisp, N., Evans, T., Fineberg, H., Garcia, P., Ke, Y., Kelley, P. & Kistnasamy, B. 2010, 'Health professionals for a new century: transforming educaiton to strenthen health systems in an interdependent world.', *The Lancet*, vol. 376, no. 9756, pp. 1923-58.

Fullerton, J.T., Johnson, P.G., Thompson, J.B. & Vivio, D. 2011, 'Quality considerations in midwifery pre-service education: Exemplars from Africa', *Midwifery*, vol. 27, no. 3, pp. 308-15.

Gardner, B., Whittington, C., McAteer, J., Eccles, M.P. & Michie, S. 2010, 'Using theory to synthesize evidence from behavior change interventions: The example of audit and feedback. ', *Social Science & Medicine*, vol. 70, pp. 1618-25.

Girot, E.A. & Enders, B.C. 2003, 'International educational partnership for practice: Brazil and the United Kingdom', *Journal of Advanced Nursing*, vol. 46, no. 2, pp. 144-51.

Godin, G., Belanger-Gravel, A., Eccles, M. & Grimshaw, J. 2008, 'Healthcare professionals' intentions and behaviours: A systematic review of studies based on social cognitive theories.', *Implementation Science*, vol. 3, no. 36, pp. 1-12.

Gower, S., van den Akker, J., M., J., Dantas, J.A.R. & Duggan, R. 2016, 'Australian nursing and midwifery educators delivering evidence-based education in Tanzania: A qualitative study', *Nurse Education in Practice*, vol. 18, pp. 16-22.

Gross, J., McCarthy, C. & Kelley, M. 2011, 'Strengthening nursing and midwifery regulations and standards in Africa', *African Journal of Midwifery and Women's Health*, vol. 5, no. 4, pp. 185-8.

Hanson, J. 2013, 'Educational developers as researchers: The contribution of insider research to enhancing understanding of role, identity and practice', *Innovations in Education and Teaching International*, vol. 50, no. 4, pp. 388-98.

Hanson, W.E., Creswell, J.W., Plano Clark, V.L., Petska, K.S. & Creswell, J.D. 2005, 'Mixed Methods research designs in counseling psychology', *Faculty Publications Department of Psychology*, vol. 1, no. 1, pp. 1-13.

Hardeman, W., Johnston, M., Johnston, D., Bonetti, D., Wareham, N. & Kinmonth, A.L. 2002, 'Application of the Theory of Planner Behaviour in Behaviour Change Interventions: A Systematic Review.', *Psychology and Health*, vol. 17, no. 2, pp. 123-58.

Harder, H. 2010, 'Explanatory Case Study', in A.J. Mills, G. Durepos & E. Wiebe (eds), *Encyclopedia of case study research*, Sage Publications, Inc, Thousand Oaks.

Harwell, M.R. 2011, 'Research design in qualitative/quantitative/mixed methods', in C.F. Conrad & R.C. Serlin (eds), *The SAGE Handbook for Research in Education. Second Edition*, Sage Publications Ltd, Thousand Oaks.

Herberg, P. 2005, 'Nursing, midwifery and allied health education programmes in Afghanistan', *International Nursing Review*, vol. 52, pp. 123-33.

Hofstede, G. 2001, *Culture's consequences: Comparing values, behaviours, institutions and organizations across nations. , Second edition,* Sage Publications, Thousand Oaks.

Hogan, M.C., Foreman, K.J., Naghavi, M., Ahn, S.Y., Makela, S.M. Lopez, A.D., Lozano, R., and Murray, C.J.L. 2010. Maternal mortality for 181 countries, 1980-2008: a systematic analysis of progress towards Millennium Development Goal 5. *Lancet,* 375, pp. 1609-23.

Holmes, P., Bavieri, L. & Ganassin, S. 2015, 'Developing intercultural understanding for study abroad: students' and teachers' perspectives on pre-departure intercultural learning', *Intercultural Education*, vol. 26, no. 1, pp. 16-30.

Homer, C.S.E., Friberg, I.K., Augusto Bastos Dias, M., ten Hoope-Bender, P., Sandall, J., Speciale, A.M. & Bartlett, L.A. 2014, 'The projected effect of scaling up midwifery', *The Lancet*, vol. 384, pp. 1-12.

Hunt, M.R. 2009, 'Moral experience of Canadian Healthcare Professionals in Humanitarian work.', *Prehospital and Disaster Medicine*, vol. 24, no. 6, pp. 518-24.

Hunter, B. & Warren, L. 2014, 'Midwives' experiences of workplace resilience.', *Midwifery*, vol. 30, pp. 926-34.

International Confederation of Midwives 2010, *Essential Competencies for Basic Midwifery Practice*, ICM, The Hague, viewed February 2014, <www.internationalmidwives.org>.

International Confederation of Midwives 2011, *Global standards for midwifery regulation*, ICM, The Hague, viewed 1 July 2015, <www.internationalmidwives.org>.

International Confederation of Midwives 2013, *Association Core Documents*, ICM, The Hague, viewed 23 October 2013, <www.internationalmidwives.org>.

International Confederation of Midwives 2014, *Comprehensive Midwifery Program Guidance*, ICM, The Hague, viewed 1 July 2015, <www.internationalmidwives.org>.

International Confederation of Midwives 2015, *Midwifery Services Framework. Guidelines for developing SRMNAH services by midwives. Field-test version 17 March 2015*, ICM, The Hague.

Ireland, J., Van Teijlingen, E. & Kemp, J. 2015, 'Twinning in Nepal: The Royal College of Midwives UK and the Midwiery Society of Nepal working in partnership.', *Jounal of Asian Midwives.*, vol. 2, no. 1, pp. 26-33.

Johnsen, K.O., Aasgaard, H.S., Wahl, A.K. & Salminen, L. 2002, 'Nurse educator competence: A study of Norwegian nurse educators' opinions of the importance and application of different nurse educator competence domains', *Journal of Nursing Education*, vol. 41, no. 7, pp. 295-301.

Johnson, J.P., Lenartowicz, T. & Apud, S. 2006, 'Cross-cultural competence in international business: Toward a definition and a model.', *Journal of International Business Studies*, vol. 37, no. 4, pp. 525-43.

Johnson, P., Ghebreyohanes, G., Cunningham, V., Kutenplon, D. & Bouey, O. 2007, 'Distance education to prepare nursing faculty in Eritrea: diffusion of an innovative model of midwifery education', *Journal of Midwifery and Women's Health*, vol. 52, no. 5, pp. e37-41.

Kohlbacher, F. 2006, 'The use of qualitative content analysis in case study research', *Forum: Qualitative Social Research*, vol. 7, no. 1, pp. 1-28.

Labonte, R. & Laverack, G. 2001, 'Capacity building in health promotion, Part 1: for whom? And for what purpose?', *Critical Public Health*, vol. 11, no. 2, pp. 111 - 27.

Lacey-Haun, L.C. & Whitehead, T.D. 2009, 'Leading change through an international faculty development programme', *Journal of Nursing Management*, vol. 17, no. 8, pp. 917-30.

Lasker, J.N. 2016, 'Global Health Volunteering; Understanding Organizational Goals', *International Society for Third-Sector Research and The Johns Hopkins University*, vol. 27, pp. 574-94.

Laurencelle, F.L., Scanlan, J.M. & Brett, A.L. 2016, 'The meaning of being a nurse educator and nurse educators' attraction to academia: A phenomenological study.', *Nurse Education Today*, vol. 39, pp. 135-40.

Lavender, T., Lugina, H., Vido, P., Chimwaza, A., Bedwell, C., Donovan, P., Kohi, T., Dlammani, P., Tsekiri, E. & Msuya, M. 2009, 'Capacity building to reduce maternal and neonatal morbidity and mortality.', *African Journal of Midwifery and Women's Health*, vol. 3, no. 4, pp. 161-167.

Law, M., Stewart, D., Pollock, N., Letts, L., Bosch, J. & Westmorland, M. 1998, *Critical Review Form - Quantitative Studies*, McMaster University, Ontario.

Lemay, N.V., Sullivan, T., B., J. & Peabody Perry, C. 2012, 'Reaching Remote Health Workers in Malawi: Baseline Assessment of a Pilot mHealth Intervention', *Journal of Health Communication*, vol. 17, pp. 105-17.

Liberato, S.C., Brimblecombe, J., Ritchie, J., Ferguson, M. & Coveney, J. 2011, 'Measuring capacity building in communities: a review of the literature', *BMC Public Health*, vol. 11, no. 850, pp. 1-10.

Loftin, C., Hartin, V., Branson, M. & Reyes, H. 2013, 'Measures of cultural competence in nurses: an integrative review', *Scientific World Journal*, vol. 2013, p. 289101.

Lopes, S.C., Nove, A., ten Hoope-Bender, P., de Bernis, L., Bokosi, M., Moyo, T.N. & Homer, C.S.E. 2016, 'A descriptive analysis of midwifery education, regulation and association in 73 countries: the baseline for a post-2015 pathway', *Human Resources for Health*, vol. 14, no. 37, pp. 1-12.

Lucas, P.J., Baird, J., Arai, L., Law, C. & Roberts, H.M. 2007, 'Worked examples of alternative methods for the synthesis of qualitative and quantitative research in systematic reviews', *BMC Medical Research Methodology*, vol. 7, no. 4, pp. 1-7.

Lynch, E.W. & Hansen, K.J. 1998, *Developing cross-cultural competence.*, Paul H. Brookes., Baltimore.

Maclean, G.D. 2011, 'Short-term international midwifery consultancy: Evaluating practice', *British Journal of Midwifery*, vol. 19, no. 12, pp. 814-9.

Maclean, G.D. 2013, *Electives and International Midwifery Consultancy: a resource for students, midwives and other healthcare professionals. Tiger stripes and tears.*, Quay Books Division, London.

Maclean, G.D. & Forss, K. 2010, 'An evaluation of the Africa Midwives Research Network', *Midwifery*, vol. 26, no. 6, pp. e1-8.

Mahler, H. 1987. The Safe Motherhood Initiative: A call to action. *The Lancet,* March 21, pp. 668-670.

Mangundjaya, W.L. 2013, *Is there cultural change in the national cultures of Indonesia?*, International Association for Cross-Cultural Psychology, Jakarta.

Marshall, B., Cardon, P., Poddar, A. & Fontenot, R. 2013, 'Does sample size matter in qualitative research?: A review of qualitative interviews in IS research', *Journal of Computer Information Systems*, vol. Fall, pp. 11-22.

Mason, M. 2010, 'Sample size and saturation in PhD studies using qualitative interviews', *Forum: Qualitative Social Research*, vol. 11, no. 3.

Mazdayasna, G. & Tahririan, M.H. 2008, 'Developing a profile of the ESP needs of Iranian students: The case of students of nursing and midwifery.', *Journal of English for Academic Purposes*, vol. 7, no. 277-289.

McAllister, M. & Flynn, T. 2016, 'The Capabilities of Nurse Educators (CONE) questionnaire: Development and evaluation.', *Nurse Education Today*, vol. 39, pp. 122-7.

McAllister, M., Oprescu, F. & Jones, C. 2014, 'N(2)E: Envisioning a process to support transition from nurse to educator', *Contemporary Nurse*, vol. 46, no. 2, pp. 242-50.

Merino, S.S. & Carmenado, I.d.l.R. 2012, 'Capacity Building in Development Projects', *Procedia - Social and Behavioral Sciences*, vol. 46, pp. 960-7.

Michie, S., Haines, A. & Donald, A. 2005, 'Making better use of research findings.', *British Medical Journal.*, vol. 1998, no. 317, pp. 72-5.

Michie, S., Johnston, M., Abraham, C., Lawton, R., Parker, D. & Walker, A. 2005, 'Making psychological theory useful for implementing evidence based practice: a consensus approach', *Quality and Safety in Health Care*, vol. 26, no. 33, pp. 26-33.

Michie, S., Johnston, M., Francis, J., Hardeman, W. & Eccles, M. 2008, 'From theory to intervention: Mapping theoretically derived behavioral determinants to behaviour change techniques.', *Applied Psychology*, vol. 57, no. 4, pp. 660-80.

Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., Eccles, M., Cane, J. & Wood, C.E. 2013, 'The Behavior Change Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions.', *The Society of Behavioral Medicine*, vol. 46, pp. 81-95.

Mills, A.J., Durepos, G. & Wiebe, E. 2010, 'Thematic analysis', *Encyclopedia of case study research*, Sage Publications, Inc., Thousand Oaks.

Mogobe, K.D., Bruce, J.C. & Meyer, S. 2009, 'Collaboration in higher education for nursing and midwifery in Africa (CHENMA)', *Africa Journal of Nursing and Midwifery*, vol. 11, no. 1, pp. 5-15.

Moores, A., Catling, C., West, F., Neill, A., Rumsey, M., Samor, M.K. & Homer, C.S.E. 2015, 'What motivates midwifery students to study midwifery in Papua New Guinea?', *Pacific Journal of Reproductive Health*, vol. 1, no. 2.

Moores, A., Puawe, P., Buasi, N., West, F., Samor, M.K., Joseph, N., Rumsey, M., Dawson, A. & Homer, C.S.E. 2016, 'Education, employment and practice: Midwifery graduates in Papua New Guinea', *Midwifery*, vol. 41, pp. 22-29.

Msiska, G., Smith, P. & Fawcett, T. 2014, 'The "lifeworld" of Malawian undergraduate student nurses: The callenge of learning in resource poor clinical settings.', *International Journal of Africa Nursing Sciences*, vol. 1, pp. 35-42.

Nagy Hesse-Biber, S. & Leavy, P.L. 2010, *The practice of qualitative research. Second Edition* Sage Publications, Washington.

National Centre for Research Methods 2012, *How many qualitative interviews is enough?*, National Centre for Research Methods, Southhampton.

National Health and Medical Research Council 2007a, *Australian code for the responsible conduct of research*, Australian Government, Canberra.

National Health and Medical Research Council 2007b, *National Statement on Ethical Conduct in Human Research*, NHMRC, Canberra.

National Health Service 2006, *Critical Appraisal Skills Programme (CASP) Making Sense of Evidence*, Public Health Resource Unit, London.

Noble, L.M., Noble, A. & Hand, I.L. 2009, 'Cultural competence of healthcare professionals for breastfeeding mothers in urban areas', *Breastfeeding Medicine*, vol. 4, no. 4, pp. 221-24.

Nursing and Midwifery Board of Australia 2006, *National competency standards for the midwife* Nursing and Midwifery Board of Australia, Canberra.

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. & Hoagwood, K. 2015, 'Purposeful sampling for qualitative data collection and analysis in mixed method implementation research', *Administration and Policy in Mental Health*, vol. 42, pp. 533-44.

Palys, T. 2008, 'Purposive Sampling', in L.M. Given (ed.), *The SAGE Encyclopedia of qualitative research methods*, Sage Publications, Inc., Thousand Oaks.

Papua New Guinea National Government 2009, *Papua New Guinea Demographic and Health Survey 2006 National Report*, National Statistical Office, Port Moresby.

Parfitt, B., Mughal, M. & Thomas, H. 2008, 'Working together; a nursing development project in Tajikistan', *International Nursing Review*, vol. 55, pp. 205-11.

Perry, L.B. & Southwell, L. 2011, 'Developing intercultural understanding and skills: models and approaches', *Intercultural Education*, vol. 22, no. 6, pp. 453-66.

Pons, M., Rawlins, B. & Griffey Brechin, S.J. 2002, *Institutionalization of reproduction health preservice education in the Philippines: An evaluation of programmatic efforts, 1987-1998*, JHPIEGO, Baltimore.

Popay, J., Roberts, H.M., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K. & Duffy, S. 2005, *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC Methods Programme*, Lancaster University, Lancaster.

Reimann, J.O., Talavera, G.A., Salmon, M., Nunez, J.A. & Velasquez, R.J. 2004, 'Cultural competence among physicians treating Mexican Americans who have diabetes: a structural model', *Social Science & Medicine*, vol. 59, no. 11, pp. 2195-205.

Renfrew, M.J., McFadden, A., Bastos, M.H., Campbell, F., Channon, A.A., Cheung, N.G., Silva, D.R.A.D., Downe, S., Kennedy, H.P., Malata, A., McCormick, F., Wick, L. & Declercq, E. 2014, 'Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care', *The Lancet*, vol. 384, pp. 1-17.

Requejo, J.H., Toure, K., Bhutta, Z.A., Katz, I., Zaidi, S. & de Francisco, A. 2010, 'Regional Collaborations as a Way Forward for Maternal, Newborn and Child Health: The South Asian Healthcare Professional Workshop', *Journal of Health, Population and Nutrition*, vol. Oct 28, no. 5, pp. 1-7.

Rhodes, D. 2014, *Capacity across cultures. Global lessons from Pacific experiences*, Inkshed Press Pty Ltd, Melbourne.

Rhodes, D. & Rumsey, M. 2016, 'An Innovative Approach to Supporting Health Service Delivery in the Pacific Appears to be Ticking Health Policy and Development Boxes. ', *Health Systems and Policy Research*, vol. 3, no. 1, pp. 1-6.

Robins, L. 2008, 'Making capacity building meaningful: a framework for strategic action', *Environmental Management*, vol. 42, no. 5, pp. 833 - 46.

Rumsey, M., Catling, C., Thiessen, J. & Neill, A. 2016, 'Building nursing and midwifery leadership capacity in the Pacific', *International Nursing Review*, vol. 6, pp. 1-9

Ryan, G.W. & Bernard, H.R. 2003, 'Techniques to identify themes', *Field Methods*, vol. 15, no. 1, pp. 85-109.

Saffu, K. 2003, 'The role and impact of culture on South Pacific island entrepreneurs', *International Journal of Entrepreneurial Behaviour & Research*, vol. 9, no. 2, pp. 55-73.

Saldana, J. 2009, *The coding manual for qualitative researchers*, Sage Publications Ltd, London.

Sales, I., Jonkman, L., Connor, S. & Hall, D. 2013, 'A comparison of educational interventions to enhance cultural competency in pharmacy students.', *American Journal of Pharmaceutical Education*, vol. 77, no. 4, pp. 1-9.

Sherwood, G. & Liu, H. 2005, 'International collaboration for developing graduate education in China', *Nursing Outlook*, vol. 53, no. 1, pp. 15-20.

Simmons, M. 2007, 'Insider ethnography: tinker, tailer, researcher or spy?', *Nurse Researcher*, vol. 14, no. 4, pp. 7-17.

Sturges, J.E. & Hanrahan, K.J. 2004, 'Comparing telephone and face-to-face qualitative interviewing: A research note', *Qualitative Research*, vol. 4, no. 1, pp. 107-18.

Tajebi, Z., Dehghan-Nayeri, N., Negarandeh, R. & Shahbazi, S. 2013, 'Motives for entering nursing in Iran: A qualitative study.', *Iranian Journal of Nursing and Midwifery Research*, vol. 18, no. 1, pp. 59-64.

ten Hoope-Bender, P., De Bernis, L., Campbell, F., Downe, S., Fauveau, V., Fogstad, H., Homer, C.S.E., Powell Kennedy, H., Matthews, Z., McFadden, A., Renfrew, M.J. & Van Lerberghe, W. 2014, 'Improvement of maternal and newborn health through midwifery', *The Lancet*, vol. 384, pp. 1-10.

The Knowledge for Health (K4Health) Project 2013, *Pre-service Education Toolkit*, USAID MCHIP JHPIEGO, Baltimore, viewed January 2014, <https://www.k4health.org/>.

The Knowledge for Health (K4Health) Project 2014, *Postpartum Family Planning (PPFP) Toolkit*, USAID MCHIP JHPIEGO, Baltimore, viewed January 2014, <https://www.k4health.org/>.

The RESPOND Project 2012, *Kenya preservice training for long-acting and permanent methods of contraception: Assessment report*, Engender Health/The RESPOND Project, New York.

Thompson, J.B., Fullerton, J.T. & Sawyer, A.J. 2011, 'The International Confederation of Midwives: Global standards for midwifery education (2010) with companion guidelines', *Midwifery*, vol. 27, pp. 409-16.

Truong, M., Paradies, Y. & Priest, M. 2014, 'Interventions to improve cultural competency in healthcare: a systematic review of reviews.', *BMC Health Services Research*, vol. 14, no. 99, pp. 1-17.

Turkmani, S., Currie, S., Mungia, J., Assefi, N., Rahmanzai, A.J., Azfar, P. & Bartlett, L. 2013, ''Midwives are the backbone of our health system': Lessons from Afghanistan to guide expansion of midwifery in challenging settings', *Midwifery*, vol. 29, pp. 1166-72.

Tyndall, J. 2010, *AACODS checklist*, Finders University, Adelaide.

UNFPA WHO ICM 2011, *The State of the World's Midwifery. Delivering health, saving lives*, UNFPA, WHO, ICM, New York.

UNFPA WHO ICM 2014, *The State of the World's Midwifery. A universal pathway. A woman's right to health*, UNFPA, WHO, ICM, New York.

United Nations, 2014, *Sustainable Development Goals. 17 goals to transform our world*. United Nations, Geneva, Viewed February 2017, <http://www.un.org/sustainabledevelopment>.

United Nations Development Program 2009, *Capacity Development: A UNDP Primer*, UNDP, New York.

University of Technology Sydney 2012, *Responsible conduct of research policy*, UTS, Sydney, viewed Feb 2014, <www.uts.edu.au>.

University of Technology Sydney World Health Organisation Collaborating Centre for Nursing Midwifery & Health Development 2014, *Phase 1: Final Report PNG Maternal and Child Health Initiative (MCHI)*, UTS, Sydney.

Usher, K., Lindsay, D., Stewart, L., West, C., McAuliffe, M., Henry, R., MacManus, M., Hall, J. & Conaglen, J. 2012, *Enhancing the quality of nursing and midwifery. Educational Programs and Services in the Pacific*, JCU/AUT, Auckland.

Uys, L.R. & Middleton, L. 2011, 'Internationalising university schools of nursing in South Africa through a Community of Practice', *International Nursing Review*, vol. 58, pp. 115-22.

Vaismoradi, M., Turunen, H. & Bondas, T. 2013, 'Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study', *Nursing and Health Sciences*, vol. 15, pp. 398-405.

Van Vianen, A.E.M., De Pater, I.E., Kristof-Brown, A.L. & Johnson, E.C. 2004, 'Fitting in: Surface- and deep-level cultural differences and expatriates' adjustment', *Academy of Management Journal*, vol. 47, no. 5, pp. 697-709.

Viano, K., Holbrook, J. & Rannikmae, M. 2012, 'A case study examining change in teacher beliefs through collaborative action research', *International Journal of Science Education*, vol. 35, no. 1, pp. 1-30.

Voetagbe, G., Yellu, N., Mills, J., Mitchell, E., Adu-Amankwah, A., Jehu-Appiah, K. & Nyante, F. 2010, 'Midwifery tutors' capacity and willingness to teach contraception, post-abortion care, and legal pregnancy termination in Ghana', *Human Resources for Health*, vol. 8, no. 2, pp. 1-6.

Volino, M.A. 2014, 'Factors influencing nurses' intentions to provide weight management education to hospitalized obese adults', Duquesne University, Duquesne.

Ward, H.C. & Selvester, P.M. 2012, 'Faculty learning communities: improving teaching in higher education', *Educational Studies*, vol. 38, no. 1, pp. 111-21.

Webb, T.L. & Sheeran, P. 2006, 'Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence', *Psychological Bulletin*, vol. 132, no. 2, pp. 249-68.

West, F., Homer, C., Dawson, A. 2015, 'Building midwifery educator capacity in teaching in lower and lower-middle income countries. A review of the literature.', *Midwifery*, vol. 33, pp. 12-23.

Wisdom, J.P. & Creswell, J.W. 2013, *Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis WHile Studying Patient-Centered Medical Home Models.*, Agency for Healthcare Research and Quality, Rockville.

World Bank 2011, *Reproductive health at a glance. Papua New Guinea*, viewed October 2016, <www.worldbank.org>.

World Bank 2014, *World Bank list of economies*, viewed September 2016, <www.worldbank.org>.

World Health Organisation 1998, *Health Promotion Glossary*, viewed March 2014, <www.who.int>.

World Health Organization 1986, 'Ottawa Charter for Health Promotion', paper presented to the *First International Conference on Health Promotion*, WHO, Ottawa, viewed March 2014, <http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf>.

World Health Organization 2008, *Midwifery Education Modules. 2nd Edition*, WHO, Geneva.

World Health Organization 2009, *Global standards for the initial education of professional nurses and midwives*, WHO, Geneva.

World Health Organization 2010, *Global Strategy for Women's and Children's Health*, WHO, Geneva.

World Health Organization 2013, *Midwifery Educator Core Competencies*, WHO, Geneva.

World Health Organization 2014, *Global Strategy for Women's and Children's Health*, WHO, Geneva.

World Health Organization 2015a, *Global Strategy on Human Resources for Health: Workforce 2030. Draft for consultation*, WHO, Geneva.

World Health Organization 2015b, *Papua New Guinea Country Profile*, WHO, Geneva, viewed October 2016, <www.who.int>.

World Health Organization 2015c, *Tracking Universal Health Coverage. First Global Monitoring Report*, WHO, Geneva.

World Health Organization 2015d, *WHO recommendations on health promotion interventions for maternal and newborn health*, WHO, Geneva.

World Health Organization 2016a, *Definition of region groupings*, WHO, Geneva, viewed August 2016, <http://www.who.int/healthinfo/global_burden_disease/definition_regions/en/>.

World Health Organization 2016b, *Global strategic directions for strengthening nursing and midwifery 2016-2020*, WHO, Geneva.

World Health Organization 2016c, *The Global Strategy for Women's Children's and Adolescents' Health (2016-2030)*, WHO, Geneva.

World Health Organization 2016d, *Standards for improving quality of maternal and newborn care in health facilities*, WHO, Geneva.

World Health Organization 2016e, *Transformative Education for Health Professionals*, WHO, Geneva, viewed October 2016, <www.who.int>.

World Health Organization. 2017, *Millennium Development Goals (MDGs)*, WHO, Geneva, viewed February 2017, <http://www.who.int/topics/millennium_development_goals/en/>.

Wright, S., Cloonan, P., Leonhardy, K. & Wright, G. 2005, 'An international programme in nursing and midwifery: building capacity for the new millennium', *International Nursing Review*, vol. 52, pp. 18-23.

Yin, R.K. 2009, *Case study research design and methods. Fourth Edition*, vol. 5, Sage, Los Angeles.

Yin, R.K. 2012, *Applications of case study research. Edition 3.*, Sage, Los Angeles.

Zheng, X.X., Hinshaw, A.S., Yu, M.Y., Guo, G.F. & Oakley, D.J. 2001, 'Building International Partnerships', *International Council of Nurses*, vol. 48, pp. 117-21.