What gets in the way of Waikato child health nurses undertaking child health specific postgraduate education?

Julia Laing

A thesis submitted to

Auckland University of Technology

In partial fulfilment of the requirements for the degree of

Master's in Health Science (MHSc)

July 2019

Faculty of Health and Environmental Sciences

School of Clinical Science

Abstract

This study sought to identify the factors which deter and hinder Waikato child health nurses from undertaking postgraduate education and to assess the popularity of such education in the practice areas which support the health of children and their families throughout the Waikato region.
The benefits of postgraduate study are well documented throughout the nursing literature. Furthermore, the literature acknowledges the benefits to patient outcomes which specialist knowledge, as part of postgraduate study, enables. The Waikato region has diverse geographical locations; cities, towns and rural communities, and a broad range of practice areas; primary health, secondary and tertiary hospitals all of which employ nurses potentially caring for children. Children and young people have specific and specialised health needs. Child health nurses need to have skills in not only advanced assessment and nursing care but also developmental frameworks, communication across the lifespan and family centred care.

This study used an exploratory mixed methods approach to investigate the barriers nurses in this region experience when undertaking specialised child health postgraduate nursing education. The research was undertaken in three phases: a review of existing questionnaires, focus groups to highlight key issues and adaptation of an existing questionnaire to administer more widely. From the literature, two survey tools were identified for customisation to the study context. A draft tool was taken to the focus groups for critique and adaptation ensuring that concerns experienced by Waikato child health nurses were represented in the final questionnaire. The 27-item survey included Likert scale and demographic questions and was distributed as hard copy and email link. From across the variety of public, private, community and hospital-based care settings, 62 child health nurses completed the finalised validated questionnaire. Key findings from the study show that this group of nurses appreciate the importance of advanced education to their practice and careers and are interested in further education. However, ongoing lack of funding support, frustrating systems and processes, an absence of recognition of postgraduate qualifications and responsibilities outside of work continue to be significant factors impeding child health nurses' uptake of postgraduate education. It is therefore essential that these issues are addressed so that child health nurses gain the knowledge and skills required to care for a population with unique and particular health needs. Further work needs to investigate alternative funding, education delivery and renumeration models to better support advancement of the child health nursing workforce.

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Attestation of authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

Julia Laing

Acknowledgements

Firstly, I'd like to thank my supervisors, Jed Montayre and Deb Spence. Your patience, support and guidance have been invaluable during this journey.

To my husband and children for their resilience and tolerance, thank you for supporting my wild and crazy ideas.

To my created family, the community of women who support me, thank you, you have kept me focused and cheered me on with words of encouragement, coffee and gin – Rachel, Zoe, Kay, Maria, Ellen, Ange.

To Paulette and 'Paulette's' out there, the inspiration for this topic. Nurses who are mums, are great nurses, make shift work work for themselves and their families and are passionate child health nurses.

Thanks to my colleagues and manager at Waikato Institute of Technology for the support, encouragement and space to complete this.

Finally, to the Waikato child health nurses who embraced this research with such enthusiasm and interest. Your work is so important, and I hope this is the beginning of something exciting and innovative.

Ethics approval

Ethics approval was applied for and approved by the Auckland University of Technology Ethics committee in two stages. Firstly, for the focus groups and then subsequently for the wider survey (Application number:18/62, approval date: 06/03/2018, amendments approved:06/06/2018). Approval was also sought from Waikato District Health Board for access to their child health nursing staff. This was confirmed on 23rd of March 2018 (reference number: RD018031). (See appendix A)

Chapter One: Introduction

This chapter outlines the background to the topic of this research project and defines the assumptions which underpin the thesis. The background to child health nursing is complex in that there are different aspects which impact on this area of focus. Nursing education is one aspect which impacts advancing child health nursing, another being child health as a specialist area of practice. Furthermore, the context of child health nursing and postgraduate education is important because it influences nurses' access to advanced education and skills. These contextual aspects are defined and outlined in this chapter.

Assumptions

Nursing as a practice values reflection and reflexivity. The benefit of critical reflection on practice and in professional development is ingrained in our professional identity and laid down in our regulatory documents. When discussing the assumptions that underpin this thesis, I will use 'I'.

The spark which began this thesis was an observation of my colleagues. I had nursing colleagues who were novice nurses in child health, passionate about child health and parents of young children. While it is recognised that shift work in nursing is generally not a reason that people pursue a career in the profession, I observed that nurses with young families would manipulate their shifts to minimise the amount of time their children required care outside of the home or by someone other than the child's primary caregivers. This was often achieved by doing afternoon, nights or weekend shifts. I saw the potential in these colleagues to be expert child health nurses but believed that the lack of flexibility in the delivery of postgraduate courses was a barrier for these nurses.

The importance of knowledge and education has always been a significant value for me personally and in nursing. Each generation has an expectation that the next will undertake further study and resources to help facilitate education are highly sought after. Contribution to discussions with the support of sound information is a value in my own family.

All my life I have cared for children, whether looking after those younger than me at social gatherings, as a job during secondary school or in my professional nursing practice. Reflecting on my undergraduate education I had the benefit of two child health placements within a large city with a dedicated children's hospital. This prepared me well for child health nursing and subsequently the opportunity of specialist postgraduate education. The importance of increasing knowledge and understanding of your area of expertise via learning and research instils a sense of power in practice (Clark, Casey & Morris, 2015).

Positive changes in my practice following completion of specialist postgraduate study has reinforced the benefit of acquiring expert knowledge.

The majority of child health nurses are proactive in ensuring that the care they provide is highly specialised and evidence based (World Health Organisation (WHO), 2003). Annual practicing certificate requirements by the Nursing Council of New Zealand (Nursing Council) include a commitment to ongoing and lifelong learning, thus one could assume that all nurses would take the opportunity to develop their skills and knowledge in this complex and rewarding area of practice. Yet many do not, and this has always concerned me.

Definition of child health and child health nursing

In 2003, the World Health Organisation (WHO) in line with their *Strategy for Continuing Education for Nurses and Midwives* published a Children's Nursing Curriculum for Europe. Although recognising the divergent definitions of 'child' internationally, they have defined 'child' as being from birth up to the age of eighteen years in keeping with the United Nations Convention on the Rights of the Child (UNICEF, 1990). The WHO curriculum recommends that a children's nurse is a practitioner who has both general undergraduate and specialist postgraduate qualifications. The nurse who practices in child health has skills in holistic child development and wellbeing. These practitioners appreciate the unique and essential relationship the child has with the family and the need for care of the whole family. The establishment of a therapeutic partnership with both the child and family facilitates a focus on care and health, education and support towards independence and wellbeing for all the family members (WHO, 2003).

Child healthcare in New Zealand

The recognition that children are different from adults and hold a special space in our communities is recognised by the New Zealand government. The Ministry of Health (MOH) produced the Child Health Strategy in 1998, identifying the goals and priorities for child health in New Zealand. Within this strategy, importance is placed not only on the practice of child health and the benefits of collaboration by professionals across health care environments but also on workforce suitability. Ensuring that within child health all staff are "specifically trained to work with children in order to understand their needs within a developmental framework and to know how to communicate with them… Children's care needs differ significantly from those of adults" (Ministry of Health, 1998, p20). The Child Health Strategy refers to and upholds the United Nations Convention for the Rights of the Child reflecting the importance of child health and wellbeing internationally for the last twenty years. However, New Zealand has some concerning issues relating to child health and wellbeing. The Organisation for Economic Cooperation and Development (OECD) assessment of poverty in member countries establishes that New Zealand continues to have a child poverty rate above the OECD average (Thévenon, Manfredi, Govin & Kualuzner, 2018). This constitutes up to 270,000 children (Office of the Children's Commissioner, 2012).

NZ also reflects international trends in health concerns relating to obesity and mental health. The childhood obesity rate in 2016 was 11%, up from 8% in 2007 (Office of the Children's Commissioner (OCC), 2016). Obesity in childhood has significant effects on all areas of healthy development (MOH, 2017). Furthermore, the MOH Health Survey in 2017-2018 reported that 46,000 children under 14 years old in New Zealand experienced mental health and behavioural problems and youth (15-24 years old) were the highest proportion of adults who indicated that they have mental health concerns (MOH, 2019).

Child health nursing in New Zealand

Future directions from the Child Health Strategy incorporate the recognition of the unique need for workforce development. Acknowledging the differences between children and adult care, the complexity of child health and the importance of skilled and experienced health care staff to facilitate health goals and uphold the rights of the child to "ensure that children survive and develop to their full potential" (UNICEF, 1990). The strategy continues by accepting there is a lack of educational opportunities available to the child health workforce and that information about appropriate courses is often not well advertised, or it is limited by cost and access.

New Zealand has recognised the importance of our children/tamariki[1] with a more than century long history of well child health focused nursing care. We have the benefit of a unique organisation in Plunket founded by Sir Fredrick Truby King 110 years ago in Dunedin. His motto then was to "Help the Mothers and Save the Babies" from the malnutrition and high infant mortality rate of the early 1900s by providing home visiting nurses to complete health checks on the babies and support for the mothers. Today, Plunket is a nationwide service with Plunket nurses engaging with the majority of children in New Zealand to undertake developmental assessments and ensure growth and milestones are being achieved up to 5 years of age (Plunket, 2019). Nurses employed by Plunket perform a minimum of 8 visits between the transfer of care from the Lead Maternity Carer (LMC) until the child begins school at 5. These free visits begin whilst the mother and baby are still under the care of their LMC and include family support, holistic assessment and monitoring of the infant or child towards meeting developmental milestones. These visits are flexible in that they can take place in a variety of settings. Initial assessments happen in the child's home and it is a unique opportunity to not only evaluate the child's growth and development but also the environment the child is growing up in and the health and well-being of the family supporting the achievement of the child's potential (Plunket, 2019).

In addition to Plunket nurses across the country and the Waikato region, there are a number of other environments in which nurses provide health care to children and their families. Nationwide, specialty

[1] Tamariki is the Māori term for children

nursing care, public health nursing, primary health care, school nursing, practice nursing and hospice nursing all have significant child health components within their practice.

Child health nursing in the Waikato

The majority of child health nurses in the Waikato work within the District Health Board. The Waikato District Health Board (WDHB) delivers a variety of publicly funded child health focused healthcare under the brand 'Waikids'. The Waikids service integrates the range of healthcare services the region provides for children and youth. Along with tertiary hospital inpatient care for acute and chronic health issues they provide inpatient care for mothers and babies needing support with mothercraft skills; feeding, settling and parenting support. They also have a team of nurses who provide expert community follow up with babies discharged from the Newborn Intensive Care Unit, children requiring feeding or respiratory support in the home, children with chronic illness or who are medically fragile as well as public health nursing (WDHB, n.d.b). Children and young people might also seek healthcare services via other publicly funded services which are not specialty focused such as the public health service, district nursing service or emergency departments in smaller rural hospitals. These healthcare providers may also care for a large number of children and have nurses who are interested in this specialty practice area.

New Zealand's funding of health services is undertaken by regional district health boards who decide which services they can provide with the financial resource allocated to them by the government. To this end, the WDHB outsources some specialist health services such as paediatric intensive care, paediatric oncology and paediatric neurosurgery to a nearby district health board. Because Waikato is geographically close to the largest city in New Zealand many subspecialty services can be managed by contracting the provision of the service to the larger, more experienced centre.

Nursing education in New Zealand

In the late 1970s nursing education moved from an apprenticeship model facilitated in hospitals to a more professional academic model with education facilitation occurring in tertiary institutions. Initially as a Comprehensive Diploma and then in the early 1990s as a Bachelor of Nursing, the three-year course was approved by Nursing Council and at the conclusion of the clinical and theory-based course Bachelor of Nursing candidates are put forward by the educational institution to complete the Nursing Council state final examination. Following this, successful candidates are issued with a practicing certificate and are able to work as a registered nurse [RN] in a variety of settings. Post graduate courses are available and can have a clinical focus with advanced assessment and speciality area modules or be more generalised comprising management, education and/or research modules.

Currently, undergraduate nursing education in child health is limited by a lack of child health experience away from the larger centres with large child health specific hospitals. In the Waikato, there are fewer opportunities for students to engage in child health nursing prior to graduation than in Auckland, for example.

The Nursing Entry to Practice (NEtP) Programme provides most new graduate nurses in New Zealand with supported transition to practice, similar to an intern year. New graduates apply to the programme and are employed in a clinical area for a year. In some programmes new RNs complete a postgraduate paper in advanced assessment which then contributes to a postgraduate certificate qualification. However, NEtP nurses are not always guaranteed an ongoing position in the clinical area in which they completed the programme.

Child health nursing education in the Waikato

Previously the local tertiary institution provided educational opportunity in child health, in line with the Child Health Strategy of 1998 (MOH, 1998). However, due to a lack of applicants, this stream hasn't been offered for more than five years. Why is this? Are the post-NEtP child health nurses accessing post graduate education from an educational institution outside of the region? Have the current child health nursing population forgotten about the local course? Is the face to face course design of the old course a factor? To what extent is the funding support for postgraduate study a deterrent?

Funding models for postgraduate education differ across DHBs. Some health boards allocate a set amount of funds per nurse depending on that nurses' level of practice. The Waikato model is complex, whereby nurses apply to a funding pool and may or may not gain support depending on who among their colleagues is also applying and on what stage they are at in their postgraduate journey.

As outlined above, the former child health modules were delivered face to face. Since this time the nursing school and tertiary institution has embraced technological advancement and currently has several courses of varying academic levels including postgraduate qualifications which are more flexible in delivery with little or no block course/study day/didactic content (Wintec, 2019).

Research focus and thesis structure

The aim of this research is to determine the factors which hinder nurses working in child health in the Waikato region in terms of undertaking child health specific postgraduate education. The project used a three-phase mixed methods approach. The exploratory nature of mixed methods research facilitates inclusion of aspects of both qualitative and quantitative methodologies supporting a depth of enquiry and assessment of the extent of the experience for Waikato child health nurses who practice across the region. Phase one included exploration of current validated survey tools to use or adapt for the Waikato, New Zealand context. Phase two collected qualitative data, employing focus

groups to identify anything missing from the questionnaire, to provide validation of the survey and a description of perceived deterrents to further postgraduate education. Once the focus group themes and changes were integrated into the questionnaire tool, phase three began with a region wide dissemination of the survey both online and in hard copy, to gage the prevalence of the issues across the region.

The thesis will be presented in six chapters. It has commenced with an introductory chapter outlining the context of child health and child health nursing including New Zealand and Waikato factors. Current nursing education in the Waikato region and factors influencing child health specific education have been discussed. Rationale for the investigation and some of what I understand to be the current situation for local child health nurses in the Waikato region has also been provided.

Chapter two will appraise the current available literature on the benefits and barriers to completing postgraduate qualifications. It will include a summary of the search process and identification of common themes across the literature relating to barriers for nurses to undertake further advanced or postgraduate education.

Methodology will be discussed in the next chapter. Rationale for the choice of research design and a critical analysis of the mixed methods approach will be provided along with addressing the issues of rigour and validity within the selected research paradigm. This chapter will also provide in-depth explanation of how the study was conducted including detailed descriptions of each of the three phases: survey tool discovery, focus group elements and questionnaire administration. Ethical considerations, recruitment planning, data collection and methods of data analysis are also contained in this chapter.

The fourth chapter will facilitate presentation of the raw data and reporting of the findings from all phases of the project. It will report significant concerns and themes as well as the statistically significant values found in the analysis of the survey data.

Chapter five will comprise the discussion of the findings, considering the results in relation to literature and inferences that can be made from the results.

The sixth, and final, chapter will draw together the concluding factors and discuss implications and limitations of the conducted research. It answers the question: What gets in the way of Waikato child health nurses undertaking child health specific postgraduate education.

Summary

Clear identification of the context and assumptions relating to the topic is essential to highlight at the beginning of a thesis. Description of the history both recent and past is required to provide an illustration of the potential experience of the participants involved in the research. An outline of the thesis structure has been presented and the following chapter will report on the investigation of the study focus in literature, including the process of the investigation, benefits of postgraduate education

to nursing practice, key themes which are identified that hinder or deter nurses from undertaking postgraduate education and gaps in the literature.

Chapter Two: Literature review

This chapter presents a critical analysis of the literature available in relation to the barriers or deterrents to undertaking postgraduate nursing education. Whilst the focus of the thesis is child health nurses, a broader look at the literature is required because the themes may cross specialties. The search process is outlined, a rationale for key word choice will be discussed and criteria for inclusion is explained. An assessment of the literature in relation to the benefits of postgraduate nursing education is included and then the literature around deterrents for nurses to undertake postgraduate education is examined. Areas of the literature lacking discussion are identified and how this project is situated within the literature is addressed.

Search strategy

The primary search accessed literature from 1989 onwards from peer reviewed sources utilising the databases of CINAHL, EBSCOHOST, ONESEARCH and two New Zealand tertiary institution databases who offer both postgraduate and undergraduate nursing qualifications. A range of terms can be used for education after registration or education for practicing nurses. Key words such as Continuing Professional Education (CPE) or Continuing Professional Development (CPD), Continuing Education (CE), higher education, graduate education, advanced training, and postgraduate education/study/qualifications were discovered to be used in a variety of ways depending on the education model of the country of origin. Typically, the terms advanced training, CPD or CE are used to describe hospital or employer-based study, sometimes due to a requirement of employment or maintenance of level of practice. However due to the variety of key words used in the discussion of postgraduate education all the above terms were searched with nursing and with barriers/obstacles/challenges/issues; with or without specialist or specialised; with or without paediatric/pediatric or child health. The search approach was undertaken as a logical process as supported by Aveyard (2010). Whilst this elicited a comprehensive discussion of nursing postgraduate issues, refining the search to hone in on the barriers, influences or deterrents in this area was instrumental in accessing the pertinent literature for this study.

A scan of the literature provided by the search showed that often barriers are discussed with benefits. Of the documents retrieved closer examination was undertaken on those whose focus aligned with the project aim of postgraduate nursing challenges. The search uncovered some literature that reported on mandatory education requiring nurses to undertake specific education. Often education in this situation is affected by the institution in which the nurse practices and is prevalent in regions where corporate entities sponsor or support healthcare provider institutions. This literature was excluded due to the lack of choice and the lack of barriers to the studying nurse. Exploration of specific methods of postgraduate education delivery in literature were also excluded because the primary aim of that

literature is to assess the manner of education delivery. Often literature deliberated on the barriers and also the benefits of postgraduate education and therefore these articles were included for the deterrent perspective. Of the literature sourced, 48 papers included benefits and barriers to nursing postgraduate education in a variety of perspectives; the advantages to the nurse clinically or professionally, the improvement to health consumers outcomes, the experience of specialist postgraduate nursing knowledge in contrast to generalised postgraduate qualifications and the barriers encountered by nurses wishing to expand their skill and practice. Literature which discussed the benefits and challenges has been used to support the discussion regarding the importance of postgraduate study to nursing practice and advancing care. The identified challenges or deterrents are included in the literature themes which have informed the broader headings of the survey tool development.

In order to evaluate the literature critically the main ideas or themes are collated under sections. The following focuses firstly on the advantages of postgraduate education, discussing the themes relating to the benefits to the nurse personally and professionally, the rewards to the profession of nursing, the positive impact on resourcing of nurses and the improvement of practice on the healthcare consumer population. Subsequently the main ideas from the literature which address the challenges of postgraduate education are presented. Key concerns for potential students include how they will fund the study, what support and recognition will they receive from their workplace, and how they will fulfil their obligations to work and home life with the addition of education. Other key themes from this literature include academic requirements and course design and the impact of these on the nurse considering further qualifications, culminating in such questions as “Can I achieve at the postgraduate level? Which course would support my work-life balance? Which course design fits with my style of learning?” among others.

Benefits of postgraduate study

Much of the literature available outlines nursing postgraduate study in relation to a variety of concepts; these concepts will be addressed individually. Research highlights distinctions between generalised and specialised postgraduate education directions. A generalised postgraduate qualification would include nursing management, research and education whilst specialist postgraduate qualifications focus on advancing clinical knowledge and skill in specific nursing practice areas. The literature reviewed highlights the benefits and barriers of postgraduate nursing education in both specialist and general postgraduate qualifications.

Completion of postgraduate study benefits nurses and nursing with regard to increases in clinical judgement and access to supporting resources such as new and innovative research. This is accompanied by a positive change in attitude towards the profession and championing the unique role

of nursing in the multidisciplinary environment (Spence, 2004b). It has also been demonstrated that completion of specialist nursing postgraduate study significantly benefits health consumer's outcomes by enhancing the individual nurse's knowledge and ability, enriching the clinical decisions made and consequently improving patient outcomes (Barnhill, McKillop & Aspinall, 2012; Cotterill-Walker, 2012).

Similarly, Ng, Tuckett, Fox-Young and Kain (2014) reviewed literature exploring the perspective of specialty nursing postgraduate education and viewpoints and concurs with the themes and concepts elicited from generalised postgraduate education literature above. The increase in depth and breadth of knowledge, positive impact on the nurse professionally and personally, growth in professional confidence and a constructive relationship between postgraduate education, practice and the quality of patient care were identified themes from the authors' research.

Ellis (2001, as cited in Ellis & Nolan, 2005) identified four areas of growth for nurses undertaking postgraduate education. These are; professional benefits including changes in attitude, career development and an increase in knowledge; personal/professional advantages in the development of critical thinking skills, confidence and an increase in inter-professional practice. Thirdly, from a human resources perspective, postgraduate qualifications can increase the retention, recruitment and motivation of staff whilst reducing burnout. Lastly an improvement in practice and patient care is evident.

PERSONAL/PROFESSIONAL ADVANTAGES

The concepts which are included in professional benefits are changes in the nurse's attitude, career development and an increase in knowledge. Armstrong and Adam (2002) focused on changes in practice after specialised postgraduate education in the critical care field. They found that, like Ellis and Nolan (2005), following postgraduate achievement there was a growth in practice confidence and articulation of rationale for practice within the nursing team and the wider health care professional community. This empowerment of nurses and higher-level critical thinking and decision making is also supported by Clark, Casey and Morris (2015).

Local literature provided some essential evidence within the New Zealand professional and educational context. Spence (2004a) assessed the effect of clinically focused post-graduate education on the advancement of nursing practice. This research revealed positive changes in clinical practice of the nurse through enhanced skills in assessment and nursing attributes, such as advocacy and clinical decision making. Spence (2004a) also reported a change in outlook and consideration of the clinical picture and the benefit of this change in perspective, enriching both the individual nurse professionally and the profession of nursing in New Zealand, providing "clinical credibility" (pg54) to those who undertake clinical Master's level education.

Advantages of completing postgraduate education personally and professionally include concepts such as enhanced critical thinking, confidence and an increase in inter-professional practice. Cotterill-Walker (2012) reviewed the literature surrounding the impact of patient outcomes from receiving care from Master's level nurses. This comprehensive analysis differentiated between specialist study and general postgraduate education. The publication highlighted an increase in the individual nurse's self-assurance in practice, thereby supporting and empowering individual nurses to critically assess care planning and management. This empowerment and increase in professional confidence supports the nurse to voice their clinical decisions and concerns within the multidisciplinary team impacting positively on the child/individual and family at the centre of their care.

RESOURCE BENEFITS

The benefits of postgraduate education on an institution are identified by Ellis and Nolan (2005) as staff retention and recruitment and also a reduction of burnout and stress. Several pieces of literature discovered that the professional benefits of postgraduate study were less likely to be academic in nature and more employment focused in that Master's qualified nurses were seen as a resource and had a greater depth of knowledge and understanding and its application in clinical practice (Cotterill-Walker, 2012; Spence, 2004a).

In counterpoint to this there is literature which contrasts these themes. Depending on the focus of the postgraduate education course – academic or clinical – the literature illustrates differing responses from students on the value or worth of the postgraduate paper, suggesting that the content needed to focus on and specifically apply to the individual student's area of practice or future focus (Cotterill-Walker, 2012). Student experience is a factor to be considered in the literature in that perceived benefit of the education undertaken by the student will impact on the individuals feeling towards the challenges or deterrents; specifically, how big the obstacle is and whether it is worth the resource required to overcome. The majority of the literature is assessing learners' experience and which challenging concepts influence the decision to embark on postgraduate education or not. Should the learning be relevant to the practitioner's current role then the application of the education is seamless and benefits of completion of the course is intrinsic and motivating to the nurse (Cotterill- Walker, 2012; Kinsella, Fry & Zecchin, 2018). Having the student's perspective on their postgraduate experience is valuable in that if the students find the courses valuable, they will promote and encourage their peers to undertake similar qualifications.

Speciality practice areas have published findings in relation to assessment of advanced education in their own sector. Hallinan and Hegarty (2016) centred on primary care nursing students and found that the increase in education for nurses in this area supports workforce development to care for complex patients in the community and an increase in work satisfaction. An Irish perspective of child health nursing concurs that workforce development is essential to provide skilled resources to care for specialist populations (Doyle, Murphy, Begley & King, 2008). These authors acknowledge that further

study is essential to advance nursing practice and the results stress the benefits to the nurse personally and professionally, as well as the ability of the advanced qualification to support changes within their healthcare setting, facilitating strategic development to positively impact on the focus population now and in the future.

PRACTICE IMPROVEMENT

International literature debates that having nurses who are postgraduate-qualified impacts positively on patient outcomes. Aiken et al., (2003) concluded that American nurses with degrees or higher education positively impacted on patient mortality. It is important to note that the American nursing education system has three levels of education and registration as a registered nurse can happen at diploma or bachelors' level. Aiken et al (2003) highlighted the benefits to patient outcomes of those who are already degree qualified or who have completed post registration education.

Considine, Ung and Thomas (2001) surveyed Australian emergency department nurses comparing clinical decision making in triage case studies and educational level of the individual nurse. They found no benefit of experience or further education in the clinical decisions made in the case studies or in the use of the triage tool. However, limitations to their methodology include questions regarding the triage tool used and the reliability of findings generated by its use. In particular, the survey instrument provides no facility to explain rationale for decision making, preventing a valuable source of data regarding clinical reasoning or critical thinking process.

Several articles agree with the notion that one of the aims for nurses to undertake postgraduate education is to specialise in a specific area of clinical focus and that there are real advantages in the sharing of new knowledge and a more critical and questioning attitude to practice, positively impacting patient care and outcomes (Barnhill, McKillop & Aspinall, 2012; Clark, Casey & Morris; 2015; Cooley, 2008; Cook, Daniels, Sheehan & Langton, 2006; Cotterill-Walker, 2012; Doyle, Murphy, Begley & King, 2008).

Walker (2009) adopts a personal perspective to advocate for specialist postgraduate education, arguing for the development of processes and increases in standards of care for patients in the intensive care area. Walker concurs with this literature review in relation to the themes outlined of increased professional self-esteem, and confidence in suggesting new ideas within the health care team and also stating that the impact of her advanced education has positively shaped patient outcomes.

Impetus for undertaking research and studies in this area is almost unilaterally in relation to workforce development and assessment of courses or qualifications. When examining workforce development some of the literature is driven by industry focus or national focus on advancing nursing as a profession (Alexander et al, 2002; Bellfield & Gessner, 2010; Clark, Casey & Morris; 2015; Doyle, Murphy, Begley & King, 2008; Ellis & Nolan, 2005; Gorczyca, 2013; McCarthy & Evans, 2003; McKinlay, Clendon & O'Reilly, 2012; Massimi et al, 2017; Ng, Ooi & Siew, 2015; Rautiainen & Vallimies-Patomäki, 2016; Richardson &

Gage, 2010; Rolls, 2005; Schweitser & Krassa, 2010; Spence, 2004b; Trotto, 2014). Internationally literature reports the advancement of nursing by using ongoing education or higher education to impact positive change in relation to nursing and patient outcomes. This positive impact on patient outcomes comes with changes in nursing practice and keeping up with changing educational approaches internationally, expert skill requirements in specialty practice areas and requiring nursing in management roles (Brown, Kerr, Taylor & Yates, 2003; Black & Bonner, 2011; Clark, Casey & Morris; 2015; Cooley, 2008; Cook, Daniels, Sheehan & Langton, 2006; Clunie, 2006; Hallinan & Hegarty, 2016; Doyle, Murphy, Begley & King, 2008; Ni et al, 2014). The third purpose for investigation in the literature was continuing professional development. Across the world there is an agreement that nurses need to ensure that their practice is up to date and incorporates latest evidence (Cook, Daniels, Sheehan & Langton, 2006; Davids, 2006; Essa, 2011; Ross, Barr & Stevens, 2013). How continuing education and professional development happens differs worldwide. Assessing the ways in which nurses engage with ongoing education and the factors which deter them from investigating options or areas of interest is important in the purpose of the literature. Several articles focus on specific courses or qualifications and assessing or moderating them in some part; for example, whether the course meets a need; or, the reasons nurses lack interest in enrolling or completing the course (Cameron, 2017; Cook, Daniels, Sheehan & Langton, 2006; Essa, 2011; Fowler et al, 2015; Johnson & Copnell, 2002). All of the literature examined agrees that nursing is a significant predictor of patient outcomes and that advancing knowledge on an ongoing basis for nursing is essential for the provision of a high standard of safe nursing care and therefore improved patient outcomes.

Provision of postgraduate education or ongoing professional development of any kind is part of nursing practice. Provision of education in a postgraduate qualification or in an industry/employer-based environment does not benefit the patient or nurse if the supports are not in place for the nurse to actively engage in the learning. Therefore, the literature investigating the deterrents or obstacles for nurses to participate in further education is wholly focused on the nurse/student experience. This provides the nurse's perception and experience of working and being expected to learn and gain further knowledge and skill.

Factors hindering nurses' uptake of postgraduate education.

The literature suggests a variety of barriers or challenges to undertaking postgraduate study. Some barriers are institutional or professional; however, internationally regions such as Europe (Brekelmans, Poell & van Wijk, 2013; German Millberg et al; 2011), America and Canada (Griscti & Jacono, 2006), China (Ni et al., 2014), Australia (Ross, Barr & Stevens, 2013) and New Zealand (Clunie, 2006) require ongoing professional development to maintain registration and practice as a nurse. Lifelong professional education in nursing is valued internationally and maintaining currency in nursing practice and building knowledge and skill throughout a career is a global imperative (Ellis & Nolan, 2004).

The literature search identified 27 documents which have investigated barriers or deterrents to nurses furthering their education both in a formal way and by means of institutional clinical updates or in-service education. These were incorporated in the literature review on the proviso that closer inspection of the article augments or includes themes which align with literature which concentrated on formal postgraduate education or in some cases, post registration education in some countries. The themes identified in relation to barriers are cost, commitments outside of work such as family, travel required to attend the course, course design, recognition and remuneration, workplace support and academic requirements.

FUNDING

As discussed in the introduction, sponsorship for postgraduate education in New Zealand has several alternative models throughout the 20 district health boards. The issue of expense and subsidy as a concern is echoed in all but five articles retrieved in the literature review. Cooley's (2008) investigation is based in Ireland and due to the funding model for postgraduate education applied in that country, financing of post registration study is not an issue to practitioners wishing to expand their skills and knowledge. Some authors fail to mention funding or cost to students. McCarthy and Evans (2003) are also focused on continuing nursing and midwifery education in an Irish context and the report produced lacks mention of funding. Yfantis, Timiakou and Yfanti (2010) describe a similar situation with a significant amount of underwriting provided to Greece via the European Union to increase education across a wide range of fields including nursing. Massimi et al (2017) omit discussion around funding in Italy. It may be possible that Italian universities also received extra funding via the European Union (EU) and the Bologna Process; this is an alignment programme for nursing education across the EU, which facilitates regional movement of skilled practitioners and recognition of their qualifications from other EU countries.

The remaining 17 articles reflect entry into postgraduate education as a significant concern for nurses in not only New Zealand (Clunie, 2006; McKinlay, Clendon & O'Reilly, 2012; Richardson & Gage, 2010; Rolls, 2005; Spence, 2004b; Woulfe, 2016) but also Australia (Black & Bonner, 2011; Hallinan & Hegarty, 2016; Johnson & Copnell, 2002; Ross, Barr & Stevens, 2013; Taylor, 2003), China (Ni et al, 2014), Malaysia (Ng, Ooi & Siew, 2015), Finland (Rautiainen & Vallimies-Patomäki, 2016) South Africa (Davids, 2006; Essa, 2011), USA (Alexander et al, 2002; Bellfield & Gessner, 2010; Schweitzer & Krassa, 2010) and Canada (Gorczyca, 2013).

Whilst the literature identifies that cost is a significant barrier to undertaking postgraduate study it is critical to acknowledge the contrasting modes of educational provision at the postgraduate level. Johnson and Copnell (2002) profile a course in which the students have to move to a different city and work part time and study part time. This increases the financial burden with moving, new housing requirements and a decrease in paid hours. For other studies, the rising cost of education and a lack of

government support in this area results in qualifications costing tens of thousands of dollars (Spence, 2004b), an expenditure which nurses may ill afford while achieving other life goals.

RECOGNITION, REMUNERATION AND WORKPLACE SUPPORT

Registered nurses in New Zealand undertake extra education with no measurable reflection in their pay scale or role title or description (Spence, 2004b). Therefore, the incentive to undertake study whilst working is often a personal aspiration to increase knowledge and skill. The financial cost and lack of workplace support for study might be regarded as acceptable if learners gain a qualification and the workplace gains the benefit of the increased growth in practice. However, this quid pro quo arrangement is reneged on when the employer presents obstacles that deter nurses from engagement. In particular, complex funding models and application processes, lack of study leave or defaulting of pledged study leave due to clinical workload demands reduce the perception of support. Rolls (2005) suggests that nurses lose interest in postgraduate possibilities if the support and recognition is not there for them during or after completion of qualifications. These issues are supported by Hallinan and Hegarty (2016) who found that on completion of the qualification there was no funding to advance the nurse's role or remuneration. The authors also mentioned the need for employer support in terms of course fees and leave. Black and Bonner (2011) concur with these findings in their research in which they ask nurses what supports they feel should be supplied by employers to enable further nursing qualifications. They reported that roster request and study leave were as important as fees support. Both Hallinan and Hegarty (2016) and Black and Bonner (2011) argue the need for study time regardless of whether the course is delivered face to face or online.

An increase in remuneration post qualification was not always the case in the several nursing education models (Bellfield & Gessner, 2010; Johnson and Copnell, 2002; Massimi et al, 2017; Ng, Ooi & Siew, 2015). However, as with New Zealand, it is recognised that postgraduate education is essential for advanced nursing roles and that nursing management needs to encourage and support nurses to complete postgraduate education to support better health outcomes.

The literature shows that internationally role advancement or salary increase is a key part of considering committing to further study (Johnson and Copnell, 2002; Massimi et al, 2017; Ng, Ooi and Siew,2015; Spence, 2004b). In these studies, many nurses who had completed further postgraduate qualifications had no change in their financial advancement following completion of their courses and such qualifications did not always lead to a promotion (Johnson and Copnell, 2002; Massimi et al, 2017). Ng, Ooi and Siew (2015) concur from a Malaysian perspective and suggested that employers need to support nurses to pursue postgraduate study by offering recognition of qualifications through "extra allowances and promotion opportunities" (p45). Locally, Spence (2004b) identified this issue within New Zealand when interviewing nurses about their experiences undertaking clinical Master's level qualifications. She noted particularly that employers commend and claim the qualification in their work force data; however, there is no reflection in remuneration for the nurse.

Many articles highlighted the inconsistency of support from workplaces who initially foster further education with supportive rosters and study leave, but then overturn leave or renege on support due to clinical load or staff absence (Alexander et al, 2002; Cooley, 2008; Fowler et al., 2015; Richardson & Gage, 2010; Ross, Barr & Stevens, 2013; Schweitzer & Krassa, 2010; Woulfe, 2016). Other experiences report a lack of opportunity to offer time away from work to support education due to busy practice environments (Davids, 2006; Yfanti, Tiniakou & Yfanti, 2010). Some employers did not have the capacity to support nurses with favourable rostering or leave to enable further education (Black & Bonner, 2011; Ng, Ooi & Siew, 2015). A shortage of nurses in some regions adds to the inability of employers and nursing management to support continuing education at any level (Ni et al., 2014).

McCarthy and Evans (2003) report from their survey of Irish nurses that most of the nurses who changed jobs after further degree qualifications were promoted within their speciality. The authors of this study recognise the potential of encouraging practitioners who have undertaken specialist qualifications to remain in the specialty area and use their new skills to better outcomes for the population in the healthcare area. The report also identifies the need to enhance opportunities in terms of role advancement for those who have completed higher education, indicating that colleagues might be inspired to do the same and create a more knowledgeable and skilled work force. Transferring this concept into the New Zealand context is difficult in a population which does not support large numbers of specialist nursing roles. Therefore, role advancement can be seen as a factor which gets in the way ('Why bother - there isn't an advanced role for me/in this area? Why bother - the job/role I am aiming for won't be available for ages?') and as a benefit ('I'll have that qualification and it may better my chances of getting that advanced job when it comes up)'. Perhaps a change in perception and nursing culture valuing clinical nurses "at the bedside" having specialist knowledge and advanced qualifications and skill is a way forward to benefit healthcare consumers outcomes and provide expert specialist care across the care spectrum and not just in pockets of populations.

COMMITMENTS OUTSIDE OF WORK

Many of the articles retrieved highlighted the theme of the added stress undertaking education places on nurses' commitments outside of employment. Most identify family responsibilities as a significant deterrent to making a commitment to add to their basic qualification. The flexibility that working rostered shifts could afford nurses to care for family members with minimal support from outside agencies provides a cost effective and holistic opportunity to meet their responsibilities as parents, the needs of their families and the expected duties within their culture. Along with this, as a parent and nurse there is the benefit of meeting both a desire to be present in raising children, enabling some added financial income and providing some space to practice knowledge and skill in a professional capacity. The literature which addresses this theme also recognises that a nurses' income is finite and the potential requirement to self-fund or limit their income due to course design or time commitment impacts on their social and financial responsibilities. Davids (2006) reported that South African nurses

identified family and financial limitations were concerns for two-thirds of participants. An Australian perspective also promotes the support of distance education to combat the issues of earning potential and family commitments (Hallinan & Hegarty, 2016). Cooley (2008) identified that two thirds of the participants in her research had dependants, suggesting that these commitments influenced the nurse's decision to carry out further education. It was also noted that support from family and colleagues was important in the success of nurses to complete qualifications.

Ross, Barr and Stevens (2013) and Spence (2004b) discuss the reluctance of nurses with family obligations of any form (i.e. as a parent or to elderly relatives) to begin further study, with these practitioners aware of the time and space away from family required to be successful. Woulfe (2016) concurs and recognises how responsibilities outside of work affect the amount of energy for practice and deter nurses from embarking on the commitment required for higher qualifications. The balance of work and home life is emphasised by much of the literature, not only those mentioned above but also Trotto, (2014), Fowler et al. (2015) and Cameron (2017). When assessing the well child specialist programme facilitated as a postgraduate certificate in a New Zealand nursing school, Cameron (2017) used a term "earner-learner" for nurses who are working and studying.

The competing demands of work, home and study are supported by Ellis and Nolan (2005) and Essa (2011) who conducted research in England and South Africa. The impact of adding in education to the balance of one's life is a real concern for nurses and one which is significant in the decision to commit to further qualifications.

For the first phase of this project, survey tools were sought and critically assessed. Five pieces of literature which utilised questionnaires in their research into barriers to nurses undertaking postgraduate education were found. All five works identified the effect which out-of-work commitments have as a barrier to starting further study. Bellfield and Gessner (2010) reported most of their participants saying their family would support their "educational journey" (p31). A proportion of respondents (40%) cited family obligations as a barrier to advancing their education. Gorczyca (2013) found work-life balance to be a "major" (p33) expected issue and therefore inhibited embarking on a new learning opportunity. McCarthy and Evans (2003) also recognise the difficulty that further education creates in a balance between work, study and family. This issue has been highlighted by nurses for many years, Johnson and Copnell (2002) in their work specifically looking at child health nurses identified family commitments as a barrier by participants of the study. This factor was added by the nurses surveyed because it was not one of options provided in the questionnaire. Married nurses are less likely to commit to further education due to family responsibilities (Ng, Ooi & Siew, 2015) and the addition of parental obligations were a further demotivating factor.

COURSE DESIGN

As a factor which supports or deters nurses to undertake further study course design is included in the themes identified. Not all literature mentions it; the reason for this can only be speculated about. It may be that course design is a component which is not important to potential students or that it is something that students have little control over. Potentially, course design is a less significant issue than other factors included in the decision to commence further study. Another reason for the limited attention to course design may be that the literature has not specifically questioned this factor.

Johnson and Copnell (2002) addressed course design specifically in their investigation into the main benefits and barriers of a specific qualification. Course design was significant because it required nurses to attend classes at a specific university and work part-time in clinical placements in particular specialty hospitals. The commitment required to complete this qualification is much more than courses undertaken on top of employment via distance or even face to face at a close location. The course design impacts upon a significant number of aspects of the nurse's life including a reduction in working hours and therefore wages, travel expenses, relocation issues and potential loss of position held prior to the course. These issues were included with the already identified themes of a lack of employment opportunities, cost of the course and recognition of advanced skills and knowledge reflected in pay.

Discussion of a variety of course design aspects are included in the literature. Massimi et al. (2017) discovered that nurses preferred their education to be provided by expert peers rather than other disciplines. Davids (2006) found conflicting ideas around how and where formal courses should be held – full time vs. part time, residential vs. distance, whilst still recognising that family commitments are a barrier to undertaking study. Black and Bonner (2011) champion the value of distance education courses, which they define as utilising information technology, video conferencing, online resource packages and learning off campus, outlining the benefits of providing flexibly delivered content to support nursing postgraduate education. This theme is supported by Hallinan and Hegarty (2016), Cameron, (2017) and Trotto, (2014) in the identification of further support in flexible distance education, facilitating the removal of some of the barriers to nurses furthering their knowledge and skill via postgraduate qualifications. Hallinan and Hegarty (2016) also include identification of enablers and therefore barriers to completion of postgraduate education for nurses. Deterrents identified within the work were financial support and course design in relation to in class time and the associated organisational requirements to engage in face to face educational facilitation such as childcare and travel.

Essa (2011) and Gorczyca (2013) identify the lack of awareness of courses available by potential students and the course requirements, including academic prerequisites and entry levels as well as personal commitments required such as travel. From a New Zealand perspective McKinlay, Clendon and O'Reilly (2012) report primary healthcare nurses noting difficulty in finding information about specialty courses and connecting with others with similar needs. Ni et al. (2014) also identify travel requirements as a deterrent and also previous negative educational experience as a potential issue for some. These

factors of course design, travel, location of education providers are also recognised by Ross, Barr and Stevens (2013), particularly with regard to those in rural and remote locations.

ACADEMIC REQUIREMENTS

Nurses in practice come to postgraduate study with a variety of undergraduate qualifications including bachelor's degrees, tertiary diplomas or hospital apprenticeship model qualifications. For some potential students a significant period of time may have lapsed between episodes of formal learning. These factors may deter nurses from engaging in further education.

Essa (2011) provides a South African assessment and perspectives of the challenges faced by nurses seeking to achieve postgraduate knowledge. The study utilised participants who withdrew from their postgraduate diploma course, inquiring into the reasons for their decision not to complete the qualification. These included a lack of information regarding the course requirements and academic level and preparation required to be successful in the course. Cooley (2008) supports this and discusses the need for nurses to adapt to learning at a higher academic level. Programme and course requirements are common themes in Ellis & Nolan's (2005) work also, outlining academic demands as a factor which students contend with, as they prioritise home and work commitments over formal learning.

Emotional and personal traits such as drive and resolution are recognised as necessary skills for those who wish to undertake formal postgraduate education when faced with complex enrolment processes, especially when qualifications do not align with the projected qualification pathway (Kinsella et al, 2018; Spence, 2004b). Gorczyca (2013) outlines several academic challenges which are both institutional and personal. Admission procedures including deadlines and a lack of course information was identified as factors which got in the way of nurses pursuing postgraduate study. The nurse's individual lack of self-confidence in relation to study or anxiety about returning to study were identified by Gorczyca (2013) and supported by Richardson and Gage (2010).

Additionally, previous negative experiences with continuing education have been identified in China by Ni et al (2014). This theme may be common across contexts and impact negatively on how nurses approach their consideration to undertake postgraduate education.

Overall, the literature reviewed identified key themes which deter nurses from participating in postgraduate education. In order to assist nurses to advance their knowledge, practice and careers we need to address the obstacles of funding, recognition and support from a variety of perspectives in order to build on the literature and to find solutions to these barriers facilitating the continued enhanced practice provided by postgraduate education.

Summary and focus for this study

The literature review provided significant agreement across countries, educational models and specialty areas regarding the benefits of postgraduate education for nurses, nursing and healthcare consumers. The key themes are identified and supported across the nursing spectrum. Advantages to the nurse personally and professionally, for specific populations, and to the professional identity of nursing are evident in the literature.

Similarly, there is agreement in the barriers and deterrents to committing to postgraduate study. Internationally, each author supported several of the key concerns, regardless of funding models or speciality practice area. The literature supports the ideal of continuing professional development and recognises the benefits of postgraduate qualifications; however, there are still significant hurdles and obligations for potential students. Recognition of the increase in skill and knowledge and need for significant support; financial, academic and practical to successfully complete advanced nursing qualifications, is dominant.

The review of the literature reveals a focus in New Zealand-situated research upon specific programmes of study or specialised areas of practice for specific contexts, along with a need to advance these areas for the benefit of the populations which they serve. None looked more broadly at general child health nursing as a focus or specialty area. None discussed or related to a population similar to the Waikato context of a large geographically diverse community close to a major city. Internationally, much of the literature addressed the need to advance nursing from a diploma qualification to a university level degree. Several concentrated on specific areas of practice, however, only one piece of published research addressed the specialty focused area of child health nursing. This research project therefore offers an opportunity to examine the experience of child health nurses within the Waikato region of New Zealand, regarding the factors which hinder interest and enrolment into specialised postgraduate education.

Chapter Three: Methodology and methods

This chapter presents the methodological approach to data gathering and analysis to answer the thesis question: 'What gets in the way of Waikato child health nurses engaging in child health specific postgraduate study?' To gather data rich enough to provide a comprehensive understanding of the perceptions of child health nurses in the Waikato, a mixed methods approach was used. The following plan details the research approach including methodology and rationale for the selected research methods. Several research studies focussing on deterrents to postgraduate education which have utilised a questionnaire component have been identified and are critiqued and evaluated for possible adaptation for this project.

Research approach

When embarking on a research project it is important that the philosophy underpinning the proposed study and the methods used are aligned within an identified paradigm. This study comes from a post positivist perspective. Post positivism is defined by Creswell (2013) as being an approach to inquiry based on cause and effect with the wider view of multiple perspectives. Often linked to quantitative methods, post positivism assesses knowledge based on four concepts: cause and effect, interrelationship of select variables, measurement of variables and testing of theories. This worldview values impartial and unbiased research approaches (Creswell & Plano Clark, 2011) and uses methods to mitigate the researchers' own ideas about the answers to the study question.

Grant and Giddings (2002) argue that post positivism facilitates the amalgamation of qualitative and quantitative (mixed) methods supporting the inclusion of participants' perceptions into the research. This is also important to align philosophies and methods (Creswell & Plano Clark, 2011). In this case, the cause and effect observational aspect of post positivism can blend with the action consequential problem centred real world aspects of pragmatism. This study will therefore use a post positive pragmatic approach.

Mixed methods inquiry enables a variety of paradigmatic approaches to be integrated within the research (Teddlie & Tashakkori, 2009). However, a single philosophy, such as pragmatism, can underpin the research placing the study problem at the heart of the research thereby valuing all data, both contextual and numerical to provide a solution to the question/problem (Halcomb & Hickman, 2015). Onwuegbuzie & Leech (2005) suggest that pragmatism affords a flexibility in research approach to the individual researcher. These authors support the position of mixed methods with the use of qualitative phases informing quantitative phases or vice versa and offer an example of the quantitative data compensating for the lack of generalisability in qualitative studies.

Mixed methods approach

Methodologically, mixed methods combine qualitative and quantitative investigations within one study (Halcomb & Hickman, 2015). This project seeks as complete an understanding as possible from the child health nursing population in the Waikato (Hickman & Disler, 2016). Many authors suggest that contemporary research should use both qualitative and quantitative approaches because it makes increased practical sense to measure both frequency and experiential significance. To investigate a topic using only one perspective limits the understanding of the events (Creswell & Plano Clark, 2011; Halcomb & Andrew, 2016; Kumar, 2014). Halcomb and Hickman (2015) recommend a mixed methods approach in order to construct research which, in each phase, links data collection and analysis to generate the breadth and depth of understanding achievable.

Mixing affords the flexibility of qualitative enquiry within the structure of quantitative methods thus gaining a better understanding of the complexities of participants' experience. The use of both perspectives enables a synergistic approach whereby the limitations of one method are offset by the strengths of the other (Halcomb & Andrew, 2016). The use of a mixed methods design reduces the overall weaknesses of a study from a single method approach. Research using quantitative approaches is characterised by strong validity and reliability which is not so prevalent in qualitative methods (Kumar, 2014) however quantitative methods are often limited by their detached and objective nature. Quantitative approaches risk missing the context and individual participant's perspectives. This challenge creates a lack of depth of the information gathered and a narrow or surface examination of the event (Creswell & Plano Clark, 2011).

Iterative sequential approach

This study used an iterative sequential approach to gain the most in depth understanding of the topic. An iterative sequential approach is a multiphase design utilising a sequence of connected qualitative and quantitative phases (Creswell & Plano Clark, 2011). This type of mixed methods style uses each phase to build on thereby gaining insight into the complexities of the experience. Teddlie and Tashakkori (2009) suggest that sequential approaches are straightforward for solo researchers to manage because the data collection and analysis of each phase occurs in a prescribed order. Because the data sets are analysed in a way that informs subsequent phases the data cannot be confused. Two phase mixed methods designs can have a bias towards one approach or another (Creswell & Plano Clark, 2011; Kroll & Neri, 2009); however, an iterative sequential method places equal importance on each phase (Teddlie and Tashakkori, 2009). In this study, the questionnaire search informed the focus group discussion, which adapted the survey tool for wider distribution. The use of an exploratory sequential design such as this was employed to investigate the topic because there were limited tools available and some of the variables were unknown (Creswell & Plano Clark, 2011). Whilst not wholly exploratory in approach, this study uses aspects of this model as the second and third phases.

A single data collection model would be insufficient to gain a full understanding of the experience for child health nurses across the Waikato. Creswell & Plano Clark (2011) suggest the depth of information from qualitative perspectives and the general understanding provided from a quantitative perspective give differing views of the study focus; however, both research approaches have challenges. Including both perspectives in a study helps to achieve qualitative depth of understanding as well as the quantitative wider experience. Mixed methodology also facilitates the expansion of initial findings when integrated into the subsequent data collection. A third rationale for using mixed methods is to investigate the pervasiveness of a situation following exploration of the topic (Creswell & Plano Clark, 2011).

This study began with searching the literature for previously used questionnaires on the same or similar topic. Key search terms used in the discovery were outlined in depth in the literature review chapter. This area of focus is a sub-specialty in the New Zealand context and the population of child health nurses is small. The search did not identify a questionnaire that could be replicated in the Waikato region. Thus, a wider search was required to gain the academic research integrity of a reliable suitably validated tool.

In this study, information from the literature search for questionnaires was helpful but not specific to the study context. This phase of the method located five surveys used to investigate the obstacles to postgraduate study for child health nurses. These were critiqued and two of the surveys were used as the base of a new tool. Creswell and Plano Clark (2011) argue that the exploratory sequential mixed method is especially useful for the development of a new quantitative tool and to assess the extent of the unknown variables and that this is a strength of this design method. The two purposes of survey development and assessment of the scope of unknown variables fits with this thesis question because there was no validated tool specific enough to measure this topic for the Waikato population. This style of research methodology provides validation and feedback on the survey tool from the focus groups along with context specific data. This qualitative perspective adds to the prevalence data from the quantitative perspective survey generating a full depiction of the deterrents for child health nurses across the practice areas in the Waikato.

The blend of data collection phases in this study facilitates robust amalgamation of ideas resulting in a comprehensive assessment of the situation. Challenges of this methodology are the time and resource required to undertake such a thorough study. Some aspects of iterative sequential studies can be uncertain at the outset as the staged structure requires some flexibility in the final quantitative component due to its development in response to the results of previous phases (Creswell & Plano Clark, 2011). Further challenges identified by Creswell and Plano Clark (2011) include the decision-making process of the inclusion of themes in the quantitative step and the requirement for validity within a new quantitative instrument. These challenges are mitigated in this study in that the survey is based on already validated tools and the new tool is checked by the focus groups for clarity of survey items and any thematic gaps.

The second quantitative phase at the end of the study enables the surveying of child health nurses across the region who are also experiencing these same deterrents to expand their specialist knowledge. Applied quantitative methods provide pragmatic results which are often based on prior research and "test the boundary of explanation" (Hickman & Disler, 2016, p.107).

Validity, Rigour and Integration

The requirement for and assurance of validity in mixed methods research is an ongoing issue for researchers (Creswell & Plano Clark, 2011; Halcomb & Hickman, 2015). In this section the identified potential threats to validity in exploratory sequential mixed methods research are outlined and discussed in relation to this thesis.

The necessity for rigorous data collection within mixed method inquiry warrants consideration of the number of participants to be included in each phase of the research. Creswell and Plano Clark (2011) suggest a large sample for the quantitative aspects and a small group of participants for the qualitative inquiry. Other risks can include the recruitment and selection of "inappropriate individuals" (p. 240) for the data collection phases. In this study, all participants are eligible for any phase of the data collection. The final validity issue identified which applies to an exploratory sequential design is that of instrument validity. In this research project, phase one was the examination of pre-existing validated quantitative survey tools used to assess barriers to post graduate education for nurses who work in child health. These questionnaires were reviewed and the selection of one of these tools is outlined in the results chapter. Modification of one or more of the selected tools was undertaken prior to the focus group qualitative phase. Once the data from the qualitative phase was analysed and adapted into the quantitative tool the instrument was reviewed by an experienced survey developer and piloted by a small group of child health nurses. Ambiguity of question or lack of content validity were addressed within the focus groups and also prior to administration of the survey to the larger participant population when the tool was reviewed by colleagues and survey specialists.

Concerns about data analysis suggested by Creswell and Plano Clark (2011) relate to all sequential mixed methods approaches. Only one concern relates to iterative or multiphase sequential designs, that of "choosing weak qualitative findings to follow up on quantitatively" (p.242). The strategy which Creswell and Plano Clark (2011) offer is to select the foremost themes to follow up on in the quantitative phase. In this project, by using a method of agreement for the focus group data analysis, the primary factors are elicited and provide a strong foundation for the final phase of the research.

The final validity threat addressed by literature (Creswell and Plano Clark, 2011; Morse, 2010) concerns the interpretation of data. These authors warn about confusing the data analysis and mixing the findings incorrectly. The analysis of each of the phases in this study required completion prior to the beginning of the subsequent phase as the findings of each phase informed the following step and information collection. Thus, findings cannot be compared because each phase is built from the results

of the previous one. Another issue identified is "interpreting the two databases in reverse sequence". Due to the importance of the study design being fit for context and the evaluative nature of the final quantitative phase it is unlikely that reversing the sequence of interpretation would occur. Again, the interpretation of the qualitative data happened prior to the completion of the quantitative tool design, so confusing the order of the interpretation of the results is improbable.

Method

In answering the question: What gets in the way of Waikato child health nurses undertaking child health specific postgraduate education, the first priority was to begin to understand the barriers for nurses working in this area. Exploring these via literature search provided an international context for the study and a point of comparison for this research, particularly the questionnaire search in the first phase of the project. Of particular interest is: Are there specific concerns which are not discussed in the literature and unique to the New Zealand context?

Phase 1: Survey search

The first phase began with a survey search to identify any already validated and tested questionnaires from the international research. Having assessed the available literature and identified prospective tools each questionnaire was critiqued for potential usefulness for my project. I contacted the authors of the two tools which are similar to the quantitative phase of my research project, focus on child health nursing specifically and align with the themes identified in the literature. Both authors consented to allow me to use their tools as a basis for my own survey (Appendix B). Because these studies were conducted elsewhere, the survey instruments needed to be adapted for the local context. Decisions were made about the suitability of each survey item, phrasing of the questions and any gaps identified were explored in the second phase – focus groups. These specific areas were included to offer as broad and in-depth survey as possible. The survey from Malaysia used items which were phrased in a negative voice. I chose to rephrase these items to a more positive frame to be encouraging to the participants. Often discussion of barriers or deterrents becomes very negative and those involved can become despondent and disillusioned in relation to the topic. I did not want participants to view specialist postgraduate education pessimistically or be put off considering furthering their knowledge.

This search is integral to the research approach used for this study and in undertaking the literature review assessment both the questionnaire search and the review of this literature were completed concurrently. Research of available tools to use or adapt for data collection for phase three of this Master's project has elicited five options. These options were found using the search engines Google scholar and Oaister (international thesis database) and utilising key words such as deterrents; barriers; graduate education; postgraduate education; continuing professional development.

The five tools were critiqued for content validity and construct validity. Content validity is defined as the strength of the tool. Are the questions clear and appropriate? Is the questionnaire too long and therefore expecting a significant or unreasonable amount of time from volunteering participants? Piloting of the tool was often utilised to ensure that the questionnaire has content validity (Creswell, 2014; Tashakkori & Teddlie, 2010). Construct validity is defined as the soundness of the questionnaire in relation to the overarching research or project question. Does the tool deliver the appropriate data to answer the hypothesis? (Creswell, 2014; Tashakkori & Teddlie, 2010).

Once the surveys were assessed for validity two studies emerged as the most robust and applicable. These two questionnaires were compared against the themes found in the literature review and against each other to ensure that all the key concepts were included. Any items outside of the themes were assessed on individual merit and included if they offered further depth to the overall focus of the survey. As an example, Ng et al. (2015) asked a question relating to the participants' interest in completing postgraduate study. This concept was not included in the other four surveys however lack of interest could well be something which gets in the way of committing to further postgraduate study.

The items for this research tool were collated and edited for the New Zealand context. Items such as level of practice and highest qualifications changed to reflect the majorly New Zealand qualified nursing population. Another example of an excluded item was the term 'service contracts' which is not used in New Zealand nursing but may be similar to bonding a nurse to a healthcare provider for a period of time in exchange for sponsorship.

The final draft questionnaire (Appendix C.) was reviewed by tertiary education colleagues, survey writing experts and a nurse manager from the professional development unit at the local District Health Board from whom I received ethics approval and requested access to staff to complete the survey.

Phase 2: Focus group

In keeping with the iterative sequential mixed methods process, the second phase is qualitative data collection. Focus groups with Waikato child health nurses were used to validate the draft questionnaire and provided an opportunity to add local perspectives. By using a qualitative phase in the method design I can explore the relationship between the findings from the first phase, the survey search and the experience of child health nurses at the heart of the research topic. Qualitative approaches examine the context of the participant's experience eliciting a measure of depth to the concepts and themes. These themes will in turn form a greater understanding of the issues and participants' relationship with them (Jackson, Borbasi & Power, 2016) They facilitate a space in which to gather less structured data, supporting participants to freely identify their opinions on the topic (Jackson, Borbasi & Power, 2016; Kumar, 2014). Qualitative research requires an identified population group who are likely to experience the issue being researched, lending greater credibility to the study. This phase of the research enabled the participants to expand their answers and for me to gain richer information about the nurse's experiences.

Challenges which are present in qualitative methods are the smallness of sample size. Are the ideas of the participant group common to all of the eligible population? Along with this, recognition of the potential for researcher bias is more prevalent in qualitative studies due to the relational nature of the data collection and the possibility of bias disclosure to the participants during this time (Kumar, 2014). By mixing methods, I sought to offset any potential researcher bias and test the frequency of the findings within the larger population.

Two focus groups of between three and five participants were undertaken in the participant's area of practice at a convenient time. The groups comprised registered nurses from two different areas of child health nursing practice – urban community care and urban hospital-based practice. The focus groups aimed to identify local issues relating to undertaking postgraduate specialist education and validate the obstacles acknowledged in the selected survey tool, thus contributing to the development of a more appropriate questionnaire.

The original plan was to have three focus groups; the two mentioned above and a third in a rural hospital. However, during this phase of this study the nursing population was involved in a nationwide industrial action in relation to wage and work conditions. It is important to acknowledge the impact that this could have on participants and their enthusiasm for participation in research. Contact was made with charge nurses and nurse educators in rural hospitals to offer a focus group in their region. The contact was followed up, however no nurses had voiced interest in committing to a focus group from this area.

The sessions began with an introduction by the session facilitator and information about the study was provided including how confidentiality was to be maintained and what would happen to the data and findings (Appendix D). Following this, consent was sought from each participant and documented on consent forms. Hui protocol followed with karakia[2] and some agreed group guidelines were formulated.

Questions for the focus groups began with presenting the draft survey. Each item on the questionnaire was analysed in relation to clarity of point and appropriateness for inclusion. Further clarification and identification of other related issues was encouraged by the focus group facilitator. I wanted to engage participants with these questions regarding survey tools: Is it clear? Is it relevant? What is missing? What do <u>you</u> think gets in the way of Waikato child health nurses engaging with child health specific postgraduate education?

I facilitated and recorded the focus group discussions. Each participant was emailed a copy of the questionnaire prior to the focus group to review if they had the opportunity. A hard copy of the questionnaire was also provided during the session for discussion. Feedback on the tool was recorded and edits documented on my hard copy. Missing topics were written either on a white board or a large

[2] Karakia is the Māori term for prayer which is the culturally appropriate way to begin any discussion or meeting.

piece of paper for the group to see what had been identified, discussed and formulated into a question. The audio recordings were transcribed, and the qualitative data analysed. The results from phase two were integrated into the new questionnaire (Appendix E).

Phase 3: Questionnaire testing

The third phase of this research used an adapted survey tool. The use of a questionnaire tool enables data findings around "attitudes, beliefs, characteristics and other phenomena of a population" as well as accessing a large section of the population at one time (Hickman & Disler, 2016, p.108). Surveys support data collection from varied geographical environments which would be difficult to access in person. These characteristics of quantitative methods provide a wider variety of response and the ability of a larger cross section of the study population to be included. Quantitative enquiry assesses the extent of the themes in a wider context than qualitative methods would support. Each of these advantages of quantitative research methods are purposely chosen for this study as the Waikato region is geographically large with nurses working in a variety of environments. These settings include mixed specialty areas and a variety of shifts to be worked within a day and across a week; thus, the flexibility of a survey supports the greatest number of participants.

In the third phase, the findings from the focus groups were used to adapt the survey from the questionnaire search. This constituted a second quantitative and qualitative approach via wider dissemination of the customised contextually-embedded survey tool. The questionnaire was reviewed by colleagues who are child health nurses and by a colleague with expertise in survey construction and administration prior to wider dissemination of the survey.

The adapted tool was piloted to nurses to check for validity, participant burden and clarity of language. This ensured that the survey measured what was intended and was not onerous for the participants. The tool needed to be able to be quickly completed utilising Likert scales or ranking of themes with space for expanded responses if participants wanted to give more information. Once the survey was sufficiently comprehensive and clear, it was implemented throughout the Waikato region via online survey software using email link, as well as paper copies with prepaid envelopes for return. The study aimed to recruit 80 participants for this phase of the research with participants having 12 weeks to complete a survey. I contacted each area every month to encourage participation. In the last four weeks I added reminders to advertising fliers.

Data collection

Facilitation of focus groups and administration of the survey took place outside of the winter illness season (July to September). This served the availability of participants and the interests of the research. The thesis study required the goodwill of participants in order to be successful. By choosing a time of

year which is less stressful to the nurses, data collection was more likely to reach the maximum sample size quickly without undue pressure on the participants.

Collation of the data was completed in two phases. The transcripts of the recorded focus group sessions were gathered and analysed to inform the quantitative survey. Barriers which are identified by the focus groups, but which are not in the phase one tool were added to the survey to provide the specific contextual focus.

Phase three data was collected in three ways, including the online survey, email link to the online survey, and in hard (paper) copy. The paper copies were collected by the researcher and manually added to the online data. This allowed the complete data set to be digitally accessed.

Inclusion/Exclusion Criteria

Sampling was purposeful and convenient for phases two and three of the study. Recruitment for the focus groups commenced with posters and fliers to relevant areas. These outlined the research topic and provided information about the researcher, study timeline for the data collection, participant eligibility, confidentiality concerns and expectations. Ensuring that the participants are aware of the time commitment required for both phase two and three was imperative for the research to provide meaningful results. The only eligibility criteria was for participants to be practicing registered nurses with an interest in child health nursing. There was a significant possibility that the majority of potential participants would have completed some post graduate papers as part of their new graduate year nursing entry to practice programme. Thus, they would have some experience of the reality of undertaking post graduate study and working. This places emphasis on the specialist knowledge component of the thesis question and ensured the collection of information reflecting the actual experience of the nurses and not just their perceived barriers.

Phase two required between nine and 15 participants. Focus group participants were approached via information on advertising fliers. They could then contact me with their details and a suitable time could be arranged. Each session was estimated to require approximately 30 minutes of participant's time at a location within the practice area. This location was purposefully chosen to make attendance as easy as possible for nurses who had likely finished their working day before the focus group session.

Quantitative survey participants were encouraged from any area within the Waikato region where nurses care for children in their practice. Utilisation of any resource to facilitate the easiest approach for participants to complete the survey was considered. Potential nurses were emailed if they had indicated interest in the focus groups but could not attend the focus group sessions, hard copies of the survey, with prepaid and addressed envelopes, were distributed to public and private healthcare areas

locally and via colleagues who were engaging with child health nurses across the wider region for other purposes such as education sessions or professional development. It was a priority to find as many potential nurse participants as possible from the initial approach to practice areas, in order to ensure the most complete and diverse sample available. Messages were received from participants who wished to share the survey link with other child health nursing colleagues in more rural or remote regions, and these offers were received with thanks.

Ethics

The study underwent ethical approval processes within the Auckland University of Technology's ethics committee (AUTEC). It also required the approval of the Waikato District Health Board research office which included consultation with the local Māori within the areas of practice to ensure cultural safety and recognition of responsibilities in relation to the Treaty of Waitangi (Appendix A).

Analysis

Mixed methods data analysis needs to happen separately and in collaboration with the differing modes of research design (Creswell & Plano Clark, 2011). Thus, each phase needed to be analysed in alignment with its paradigmatic approach.

Due to the sequential nature of the methodology, analysis of the data happened in sequence at the end of each phase. Phase two data was thematically analysed from the transcripts of the focus group sessions. The raw recorded data from the focus groups was revised and concepts and phrases identified from the conversations. Creswell and Plano Clark (2011) argue that this is a sound way of coding qualitative data which supports the full extent of the experience for participants. The purpose of the focus group was to validate the survey tool created from phase one and also to assess for concepts experienced by child health nurses in the Waikato but missing from the survey tool and therefore the literature. Feedback relating to specific items in the questionnaire including statement clarity and purpose was integrated into the final survey. Any new ideas which participants experienced were raised and posed as statements to add to the final tool. Because the focus groups were used to inform phase three, analysis of the focus group sessions needed to be completed before phase three began. As such, analysis of the data provides a single conclusion to the research question because phase three is an assessment of whether or not the data from phase one and two is as widespread as initially thought.

Data analysis for the third phase was undertaken using the Statistical Package for the Social Sciences (SPSS) software. SPSS facilitates the amalgamation of both short text answers and numerical data from categories (Bazeley, 2010) thus was ideal for this study which comprised both qualitative comments and quantitative Likert scale data.

Phase three analysis assessed the correlation between the 27 survey items and the demographic data gathered. This involved reviewing the SPSS reports for significance between age, dependent children, ethnicity, nursing experience, nursing qualifications, work hours, level of seniority and healthcare provider. Correlational significance was analysed using Spearman's Rho. Spearman's Rho is a correlational coefficient for ordinal variables which can be ranked and is useful in situations of non-normal distribution (De Vaus, 2002). This model of correlational coefficients provides an analysis of statistical significance when variables have many categories, without the loss of information. Loss of detail may occur in other analytical coefficient models which combine categories and risk a distorted pattern. Therefore, using a rank order correlation such as Spearman is preferable. Spearman's Rho enables a more linear analysis similar to Pearson's r when normal distribution cannot be assumed.

Missing values in the phase three data was treated with mean imputation. Gomez-Carracedo, Andrande, Lopez-Mahia, Muniategui and Prada (2014) suggest that there is no one best way exists in which to manage missing values in datasets. Cheema (2014) supports the notion of keeping as much data as possible and not using listwise deletion (removing the entire response if there are missing values) which results in loss of data and statistical power in small sample sizes. This author also recommends imputation for missing data. The concern with imputation of missing values is the risk of biasing the results (Acock, 2005; Padgett, Skilbeck & Summers, 2014). The literature relating to treatment of missing values in survey data debates the type of imputation and the relative risks of each approach to influence the results (Gomez-Carracedo, Andrande, Lopez-Mahia, Muniategui and Prada, 2014; Myrtveit, Stensrud & Olsson, 2001; Padgett, Skilbeck & Summers, 2014; Penny & Atkinson, 2011). The similarity across all the articles is the discussion and definition of the type of missingness of the data. Penny and Atkinson (2011) report that the most common reason for missing values or non-response in surveys is in a haphazard pattern and therefore the data is missing completely at random. The notion of missing completely at random signifies that the missing value is independent of any other value in the survey tool. And to delete survey responses listwise due to values missing completely at random is to discard valuable data especially when the dataset is small.

Mean imputation is not wholly supported in the literature, with many authors favouring multiple imputation programmes due to the statistically similar nature of this method and potential to decrease the risk of bias (Acock, 2005; Cheema, 2014; Gomez-Carracedo, Andrande, Lopez-Mahia, Muniategui and Prada, 2014). Further literature offers that if data is missing completely at random then the likelihood of value imputation will not skew the results if the amount of missing data is a certain percent (Kosor, 2011; Myrtveit, Stensrud & Olsson, 2001; Penny & Atkinson, 2011; Saunders et al., 2006). Penny & Atkinson (2011) suggest that the method of imputation is less important if the missing data is less than 5% particularly if the values are missing completely at random. Myrtveit, Stensrud & Olsson (2001) agree and propose that 5-10% missingness should ensure continued validity and maintenance of standard deviation and power. Kosor (2011) agrees that up to 10% imputation using a single imputation treatment retains the reliability of the dataset and does not bias the findings.

Therefore, missing values need to be treated in a way which appreciates the data received from the survey participant, but which also maintains the statistical integrity of the dataset. Saunders et al. (2006) considers that the choice of imputation relates to the resources, skills and knowledge of the researcher. And that mean imputation is a quick and simple way of managing missing data when there is a small amount of values missing. They consider the decision by the researcher regarding treating a small amount of missingness against the more complex imputation model and offer that up to 20% imputation is acceptable.

Due to the small sample size, the small amount of missing values which are independent of other missing values, missing completely at random and the complexity of using a multifaceted multiple imputation model, this thesis used a single mean imputation model to treat missing values in the phase three survey as supported by the literature above.

Summary

This chapter has described and justified the use of an iterative or multiphase sequential mixed methods approach comprising three phases. It has aligned the pragmatic approach with the methodology, identified the strengths and weaknesses of the methods and discussed the moderation of the challenges in relation to this project. Criteria for judging rigour and ethical responsibilities are outlined. Each of the three phases of the study is explained in depth with the challenges and defence of each method offered. The plan for data analysis is presented. The next chapter will focus on the results of all phases of this mixed methods project.

Chapter Four: Results

The purpose of this chapter is to present the data gathered from both phases of this mixed methods study assessing what gets in the way of Waikato child health nurses undertaking child health specific postgraduate study. Firstly, the survey tool development is presented. This is followed by the common themes identified from the focus group interviews and the changes made to the survey tool which were the result of this consultation process. These findings are reflected in the final survey tool as per the iterative sequential mixed method design. Following this, the survey data will be presented with the description of the process used to analyse the raw data and the statistical analysis results. Included in the survey analysis is the demographic data of the survey respondents, the Likert scale results and the findings from the open-ended and text rich question responses.

Phase one: Survey Search

The following table is the assessment of each of the questionnaires sourced in relation to both construct and content validity. Included are comments on which items or aspects of the tool might be valuable to include in the thesis tool.

Table 1

Survey critique and rationale.

Author, date, Document purpose Country of origin	**Study question and tool design**	**Content Validity**	**Construct Validity**	**Critique/Rationale why to use or not.**
Bellfield & Gessner (2010) MS thesis Georgetown, USA	Factors influencing the advancement of professional education of nurses at a magnet hospital. 19 item paper questionnaire N=100 n=78 78% response rate	Reviewed by a group of nursing education experts for content validity. Used a variety of questions – MCQ, short answer and yes/no	Factors are identified. Limitations of the study are recognised – not many qualitative aspects included in the tool, limited geography (one hospital) and age of respondents (majority under 30)	Includes participants who have completed further education and those who have not. A broad range of questions including attitudes to their undergrad education, if family would support their further study and if they thought further study would earn them more money. Some of the questions are cumbersome in construction, for example many of the MCQs have the same 4 options as answers where a Likert

				scale would provide a leaner layout and several questions have 6-8 options which may have been better to have open-ended questions or options with space below for further depth/elucidation. Many of these are not applicable to the research project to be undertaken.
Gorczyca (2013) MSN thesis Vancouver, Canada	Factors influencing the pursuit of graduate education in registered nurses: Exploring the motivators and barriers. Focus groups n=8	Member checking of data as per Lincoln & Guba framework for rigour.	Motivators and barriers identified. Limitations identified – small groups in the same hospital. All the participants knew the researcher. Bias recognised.	A list of questions for the focus group is included in the thesis. There are some potential qualitative issues to consider for inclusion in the project tool, for example what supports would have to be in place for you to take on post graduate education? What types of continuing education experience are most useful for RN's?
Johnson & Copnell (2002) Part of a larger study by tertiary institution and child health agency. Victoria, Australia	Benefits and barriers for registered nurses undertaking postgraduate diplomas in paediatric nursing. Self-administered questionnaire across several hospitals. Focus groups in specialist child health hospital. N=885 n=391 44% response rate	Questionnaire tool critiqued by curriculum review committee. 22 item tool using open and closed ended questions, ranking, likert scales and fixed choice design.	Research question answered. Limitations include the low response rate and therefore the query around generalisability and only one type of postgraduate programme examined.	The programme focused on was a mix of 3 days of clinical work and 3 days of study per week. Moving to the child health hospital and affiliated university. Consequently, one of the major barriers is a reduction in pay and significant disruption to normal life. Whilst it is the most fitting of the five study options as it has a child health postgraduate focus the data collection design is blurred and the unique issues specific to the programme limits the tool for replication. The authors will be contacted to investigate potential changes or new data since 2002.
McCartney & Evans (2003) Health board development and planning unit	A study on the impact of continuing education for nurses and midwives who	No pilot. What effect does the role of the author have on the perceived	Conclusions and recommendations identified from the data gathered.	Two different tools used depending on the education level of the nurse/midwife participants – higher

Ireland, UK	completed post registration courses. 2 different 20 item paper questionnaires for nurses and midwives who have completed post graduate study. N=207 n=136 71% response rate	need for content validity?? Variety of question design included – Likert scale with 10-15 sub-questions, short answers, yes/no		diploma versus degree course completion. Retrospective/reflective project looking at the participants practice since completing post registration education. Some identification of the disruptions to participants life that occurred by committing to further education.
Ng, Ooi & Siew (2015) Investigation by tertiary institution Kuala Lumpur, Malaysia	Factors deterring registered nurses from pursuing post graduate nursing degree in a private hospital in Penang, Malaysia 8 deterrents identified from literature. N=162 n=150 92% response rate.	Pilot study conducted by 15 nurses. Tool reviewed by experts from the private hospital. 15 item questionnaire using Likert scale and ranges for demographic data.	Study question answered. Barriers to postgraduate education identified recommendations suggested.	The design of this study is uncomplicated and could facilitate a good response rate in that streamlined tools could garner an encouraging perception amongst potential participants. The deterrents cover a wide variety of aspects. The authors will be contacted to request a full version of the tool. This tool is the best option of the studies/questionnaires sourced as it already includes many of the barriers to completing further specialist education and will require the least amount of adaptation following the focus group phase.

Each of the documents generally have strong construct validity and most of the documents have content validity in relation to the definitions of these two concepts of research rigour (Creswell, 2014; Tashakkori & Teddlie, 2010). However, whilst each study has its merits, and each proposes some unique factors to consider and potentially add to the Master's project in question. The tool used by Ng, Ooi & Siew (2015) is the most clear-cut and the least complex to adapt to the unique environment in which this study is to be conducted.

McCartney & Evans (2003) undertook a study in Ireland assessing the impact of continuing education on nurses and midwives who had completed post registration qualifications between 1995 and 2002. The product of their research was a report to their employer, as a result of governmental and professional

reports. This project was undertaken to assess the impact of these post registration courses on the practitioners and their work and to identify any organisational barriers to application of this new knowledge.

The project utilised two individualised questionnaire tools to elicit the data from participants. The first survey was targeted to those who had completed degree qualifications post registration, whilst the second was aimed at those who had completed higher diploma courses, noting that at the time of publication across the United Kingdom undergraduate nursing qualifications are at diploma level. Participants were identified through health boards and educational institutions. The authors received 120 usable responses from a potential sample of 207 with just over 100 of those having completed degree courses and just under 100 of those with a higher diploma qualification.

The tool requested information relating to course details including learning outcomes, challenges and supports to the application of new knowledge and skills, impressions of the course and recommendations to support practice improvement and growth of the study participants. Data was collected by a variety of question types; question themes with 4-12 Likert scale sub questions and short answers questions with space provided for participants to expand and document their experience. In terms of rigor of validity, the questionnaire was not piloted which is in keeping with the nature of the document produced. As a piece of internal measurement within the employment context, the validity and rigour of the tool may not have an impact on the outcome. However, it could be problematic in that there is no mention in the report by the researcher, specifying that they have the data they sought or that the questions were asked in a manner in which the participants provided them the necessary information to reach a comprehensive conclusion.

This report focuses more on the positive impact of post-registration education in the write up on: A study on the impact of continuing education for nurses and midwives who completed post registration courses. Therefore, they have asked questions from nurses who have completed the qualifications under investigation and are looking at how they are applying their new knowledge and skill in their practice. Pertinent to this thesis is the funding context; in the UK context nurses gain financial support from their institution to complete post graduate education and therefore course costs are rarely a deterrent to completion of ongoing or higher education. The results did however identify the challenges faced by participants around the lack of study time to attend the course and prepare for assessments. This report also acknowledges the issue of balancing work, study and family commitments in order to be successful and develop new knowledge and skill.

The lack of rigour around the questionnaire used by McCarthy and Evans (2003), the retrospective nature of their research, the length of the measurement tool and the lack of specialised educational focus indicates the inappropriateness of utilising this tool for this Master's project.

As a component of a Master's of Science for Georgetown University, Bellfield and Gessner (2010) addressed the factors influencing the advancement of professional education of nurses at a magnet hospital. The authors proposed two research questions: What are the factors that influence nurses in a

Magnet hospital to advance their professional education? And what are the factors that prevent nurses in a Magnet Hospital from advancing their professional education? The cross-sectional descriptive design employed a hard copy questionnaire to a convenience sample of 100 nurses across a variety of adult specialty areas. The researchers formulated the tool from reviewing the themes from literature and a consultation group of registered nurses. The entire survey amounted to 19 questions in four sections; demographics, education and support, questions for those who have completed post graduate education and finally questions for those who have not commenced further education. Each participant completes the first two sections and then either the third or fourth depending on if they have completed post registration education or not. The survey design consists of a mix of questions; multiple choice, yes or no or open text answers. Unlike McCarthy and Evans (2003) there are no sub questions and therefore the tool would be very efficient to administer, an important aspect when utilising a voluntary convenient sample of busy professionals. Following the creation of the tool, it was reviewed for content validity by "experts in the field of nursing education" (Bellfield &Gessner, 2010, p17).

The survey probes a broad range of questions including attitudes to their undergraduate education, family education level, their opinion on if they think it is important for nurses to have a bachelor's degree, if their manager or family would support their further study, job satisfaction and if they thought further study would earn them more money. Some of the questions are cumbersome in construction and curious in tone. As an example: in section three the participants are asked to select only one answer for the three questions. The first and third are clear however the second question requests that the participants select the best statement where several aspects may be applicable. The statements are phrased "I chose to advance my professional education…" with options of "in order to earn more money", "for my own personal satisfaction", 'because I no longer wanted to work at the bedside" and "due to encouragement from my manager" (Bellfield & Gessner, 2010, p22). The tool uses multiple-choice questions, many are constructed with the same 4 options as answers; a Likert scale would provide a leaner layout. Several other questions in the survey have 6-8 options which may have been better to have framed as open-ended questions or options with space below for further depth and explanation. The results of the research are described in the thesis in diagrammatic and thematic forms with findings demonstrating personal satisfaction and an increase in remuneration to be key factors in nurses choosing to undertake advanced education. Benefits identified in the findings were an increase in money and an increase in self-pride.

Much of this research is not pertinent to this Master's project in that it is quite broad with questions around attitudes to undergraduate education, opinions relating to bachelors qualifications and the general nursing focus of the participant population.

The third piece of research identified as a potential adaptable model is: Factors influencing the pursuit of graduate education in registered nurses: Exploring the motivators and barriers (Gorczyca, 2013). This study is also part of a Master of Science in Nursing thesis from the University of British Columbia (Vancouver), Canada. The report of the qualitative phenomenological study utilised focus groups with 8 participants. The thesis used the Lincoln & Guba framework to ensure rigour, returning to the

participants with the themes and 'member checking' the content to ensure researcher bias has not been introduced.

Factors influencing the pursuit of graduate education in Registered nurses identified motivators, barriers and perceptions or attitudes with situational, institutional and dispositional barriers outlined. Factors such as work-life balance, financial impact, personal and family commitments and returning to study are key concepts investigated.

Limitations of the study are clearly discussed with institutional barriers lacking content as the focus group participants had not begun to apply for postgraduate education. Alongside this the researcher acknowledged the small sample size from a singular hospital and the potential for bias as the researcher was known to all the participants.

Whilst the thesis is qualitatively focused there are some concepts which were included in the survey this Master's project, such as "What supports would have to be in place for you to take on postgraduate education?" (Gorczyca, 2013, p.68). The report does contribute to the literature review and has supported the identified themes which form the basis for this study's developing survey.

The study by Ng, Ooi & Siew (2015) is based in Malaysia and focuses only on the factors deterring registered nurses from pursuing postgraduate nursing degree in a private hospital in Penang, Malaysia. The questionnaire participants are qualified nurses however in Malaysia, registered nursing qualifications are at diploma level and therefore the focus of this publication on assessing the factors which deter nurses to undertake a Bachelor's degree rather than postgraduate level education. The study does include a large sample size of 162 participants with 150 responses giving a 92% response rate. The questionnaire was 32 items using Likert scales and demographic data answered in ranges, with a pilot conducted by 15 nurses and reviewed by experts within the hospital in which the research was conducted.

The tool tested eight deterrent areas which were identified from literature and their findings supported these. However, there was no facility within the survey for the participants to add any other factors which they might wish to contribute.

Advantages of this study are that the streamlined design of the tool affords a quick and uncomplicated response which may positively impact on response rates. Critical analysis of the survey in relation to this Master's thesis highlights the lack of specialist and postgraduate focus to the survey. These are key as specialist postgraduate education is primarily concerned with increasing knowledge and skill in a specific area of nursing practice.

The authors of this research were contacted and consented to provide me with the original survey to use. Of the questionnaires searched, this study was the one which required the least amount of adaptation. However, its generalist focus did not meet the complete brief of an ideal survey tool for this study.

The only piece of research which focuses on assessing the benefits and barriers for registered nurses undertaking postgraduate diplomas in paediatric nursing is by Johnson & Copnell (2002). It is based in Victoria, Australia and was part of a larger study by a tertiary institution and child health agency. The large survey was a self-administered questionnaire across several hospitals which garnered 391 responses from a potential population of 885, giving a response rate of 44%. The hospitals involved were part of a child health qualification which combined clinical experience and academic study. The programme required nurses to move to a specific city and work in selected hospitals part time and study part time. This significant lifestyle change was identified as a key issue, impacting on finances and family life due to distance and a decrease in paid clinical work.

Whilst the Johnson & Copnell (2002) study is the most fitting of the five study options because it has a child health postgraduate focus, the data collection design is blurred in that it assesses both benefits and barriers. Furthermore, the unique issues specific to the course context and programme design limit the tool for replication.

The Victoria research survey was critiqued by the tertiary institution's curriculum review committee prior to administration for content validity. Construct validity was achieved in that the question under investigation was answered and the benefits and barriers for these specific nurses undertaking this specific course were identified. One of the limitations of the study was the low response rate and the impact of this on the generalisability of this tool.

The researchers were contacted and, whilst they no longer had access to the original tool, they were able to confirm that the design and results published in the article were indicative of the items from their survey. "I can say with confidence that the items in the 'barriers' and 'benefits' questions were the ones listed in the tables in the papers, with an 'other - please specify' option" (Copnell, personal communication, 2017).

Table 2

Comparison of major themes from the questionnaire search

Item	Ng et al., 2015	Johnson & Copnell, 2002	Bellfield & Gessner, 2010	Gorczyca, 2013	McCartney & Evans, 2003	Identified theme from the literature	Theme for the new tool
Study design	Survey	Survey and Focus groups	Survey	Focus groups	Survey (Post qualification)		
Age	✓		✓	✓			✓
Married	✓						
Number of Children	✓						

Years post registration	✓	✓			✓		✓
Current highest qualification	✓	✓	✓				✓
Current Role		✓	✓		✓		✓
Perceived Barriers							
Lack of interest	✓						✓
Lack of career advancement	✓	✓				✓	✓
Lack of increase in wages		✓	✓			✓	✓
Financial cost of education	✓	✓	✓	✓	✓	✓	✓
Family commitments	✓	✓	✓	✓	✓	✓	✓
Time commitment	✓			✓	✓	✓	✓
Workload at work	✓			✓	✓	✓	✓
Lack of workplace support	✓		✓		✓	✓	✓
Lack of flexible programme	✓		✓			✓	✓
Distance to course/class		✓				✓	✓
Workload of the course		✓				✓	✓

Items from the tool used by Ng, Ooi & Siew (2015) was compared with the Johnson and Copnell (2002) tool items. Specific questions relating to the themes involving the study focus were assessed an edited to reflect a positive voice and appropriate language for the New Zealand context. From this assessment

seven sections were formed. The seven sections focused on workplace support, delivery of postgraduate courses, economic considerations, career and practice, social commitments, time commitments and interest in postgraduate education. Under these sections several (1-7) statements are proposed with a five-point Likert scale offered to respond. The five options were; strongly disagree, disagree, agree, strongly agree, or don't know. The draft survey is attached as appendix C.

Included with the questionnaire items was a brief introduction outlining the purpose of the study, who I am, that the survey is anonymous and by completing it they are consenting to the use of the data for this research. Following the focused Likert questions within the sections, there is are questions relating to interest in enrolling in child health specific postgraduate study, which barriers would support consideration of enrolment in child health specific postgraduate qualifications and what topics they might like to see included such a qualification. After these three questions there are demographic items including; age range, any dependent children, ethnicity, years since registration, highest nursing qualification, usual working hours, current level of practice and area of work, such as private hospital or community agency.

The resultant tool was formatted into a table for the Likert scale items and able to fit in a tidy and visually appealing way on two double sided A4 pages (Appendix E)

Phase Two: Focus groups

The purpose of the focus group was to ensure that the survey was relevant to the context and nurses at the centre of the study. It was essential that the tool included themes that are the reality of Waikato child health nurses and that they not only checked the tool for validity but also that they had the opportunity to add their experience to the survey. As per the proposed methodology, the focus groups worked through each item on the survey, ensuring clarity and understanding of the statement and facilitation of further discussion around the statement and the section theme thus validating the tool for wider dissemination. The first focus group was conducted with child health nurses who work in a publicly funded district health board hospital and the second focus group was conducted in a private community-based healthcare provider. For both focus groups, when discussing these concerns the participant nurses tended to use it as a space to debrief in relation to their experience of each item in the survey.

Table 3

Focus group survey tool changes

Theme	Focus Group One: DHB Hospital	Focus Group Two: Private community
Workplace support	Divide: My superiors and/or workplace encourage and support the pursuit of postgraduate education to be two questions. Manager support and workplace support.	Add depth to: It is easy for me to obtain leave from work to complete study, the group questioned why someone might disagree with this statement.
Course Design	Reword: NEtP and/or similar financial support will motivate me in pursuing my study at a postgraduate level and minimise my financial burden.	Add clarity to: Online or distance postgraduate programmes would support me to meet my work commitments. What "meet my work commitments" means. Remove: Online or distance postgraduate programmes would allow me to spend more quality time with my family. How is this item different from the item immediately prior which asked about work life balance? Include an item asking survey participants if they have a good understanding of the available child health postgraduate programmes.
Economic Considerations		
Career and Practice	Reword: There is limited opportunity for career advancement with specialty postgraduate qualifications.	Define NEtP in relation to: NEtP and/or similar financial support will motivate me in pursuing my study at a postgraduate level and minimise my financial burden. Outline what career advancement might be in: There is limited opportunity for career advancement with specialty postgraduate qualifications.
Social commitments		

Time commitments	
Interest	Group members felt that having a negative statement at this point in the survey was confusing and others might find it confusing also.
Demographics	This group requested that an on-call element be added to the demographic item relating to hours of work.

Both focus groups provided valuable clarity and validation of the adapted survey tool and rich detailed data relating to the experience of considering postgraduate education for child health nurses in the Waikato.

Workplace support

Within the section relating to workplace support the first focus group wished for the first item: My superiors and/or workplace encourage and support the pursuit of postgraduate education to be divided into two questions. As some participants felt that their managers championed further qualifications however it was not felt that the employer was as supportive. The final statement in this section: It is easy for me to obtain leave from work to complete study, sparked a detailed discussion focussing on study leave vs. annual leave vs. days off for the focus groups. The second focus group outlined that they did not receive annual leave to complete study. Several of the first focus group members mentioned having to manipulate the duty roster to have specific days off to attend course days. Of particular interest reported by the participants of the first focus group is the contextual situation in that if their employer funds the course fees then the nurse/student is entitled to paid study days. However, if the nurse has chosen to self-fund the qualification then they have no paid study day entitlement. This discussion progressed into the availability of child health specific postgraduate papers for the Nursing entry to Practice (NEtP) programme. The healthcare institution for which the participants of this focus group worked for prescribe the postgraduate modules that the NEtP nurses are funded for. These are an advanced assessment paper and a quality improvement module when the nurse reaches RN II level of practice. The NEtP programme is provided for new graduate nurses. They are placed in an area of practice however are not guaranteed employment in that area past the first year of work. This creates a loop hole which child health NEtP nurses may fall into and is the argument of the NEtP module education provider; in that if you are not ensured of employment after one year, you are more likely to go to an adult area as there are more positions. So, if you are more likely to be in an adult area, completing the adult postgraduate assessment paper is going to be helpful, if that situation arises.

Course design and delivery

Many of the focus group participants reported that they preferred face to face delivery however were "more likely to enrol in one online" and stated that "flexibility is great". Commenting on the compromise made by these nurses to gain education even though it is not in the manner which is the learners preferred method.

Economic considerations

Financial concerns were discussed at length with much debate around hours of work (full time equivalent; FTE) and pay. Some participants outlined decreasing their FTE to include study and the effect of this on their pay and leave allowances. Many commented that "education isn't easy to access" referring to application for funding support from their employer. In relation to the possibility of taking out a loan to fund postgraduate education many commented that they were still repaying their undergraduate loan and had a decrease in take home pay already. The participants reported that they are not getting funded for specialty specific advanced education modules.

Career

Following the section on funding and economics, the section on career advancement was debated. The second focus group talked about education as part of a programme which led to advanced skills and qualifications. Focus group participants also considered the difference between specialist area and general nurse postgraduate qualifications. Upon opening the theme for further discussion in the first focus group, a participant stated that they "know it would be more useful" to have postgraduate education, however the process and outcome is difficult in that the priority for funding does not allow for nurses outside of the NEtP programme, those in senior nursing roles such as Nurse educators or those on the Nurse practitioner pathway. The discussion moved into recognition of qualifications and the lack of renumeration or seniority for postgraduate certificate or postgraduate diploma level education. Focus group participants offered that there was "no point" in doing a postgraduate diploma as there is no recognition for it by the healthcare provider. There was a feeling of frustration from the group characterised by statements such as "it is quite expected to do postgrad" but the barriers feel quite insurmountable in that there is little to no choice in module and very little support for nurses outside of the prioritised groups. The group agreed that a postgraduate qualification did increase options for future career moves such as Clinical Nurse Specialist roles. There was a lengthy discussion around the NEtP programme with the group agreeing that it was like being a "4th year student" and that there are a lot of resources available for those students. Many agreed with a contributor when it was suggested that students needed "an academic break" following their undergraduate qualification and that with more experience it would be easier to complete the assessments.

Provided with an opportunity for further general discussion and identification of any other deterrents or barriers the group agreed that the survey had included all the necessary topics. I asked the group if they

felt that the currently funded NEtP papers served them as a child health nurse. The response was that it didn't. I followed this question with a supplementary question relating to their awareness of child health specific postgraduate options available. Again, the group was not aware of the child health specific courses available. This question formulated an item which was included into the final survey, as a lack of awareness of what courses are available in relation to the specialty area may be something which gets in the way of engaging with postgraduate education.

For each focus group general feedback on the tool was offered during the group conversation. The second focus group acknowledged that the separation of the items into sections/themes was supportive of the participant and it was felt that it was a good way to address the various areas of the topic. General discussion, after the survey had been reviewed by the second focus group, focused on if nurses understand what sort of postgraduate study would contribute to career progression and do nurses understand what child health education is on offer. Questions raised in relation to this were: Have you been given updated information about child health education on offer? This discussion led to the inclusion of an item asking survey participants if they have a good understanding of the available child health postgraduate programmes.

Phase three: Survey

This section presents the results tables of the survey. The frequency distribution of all the variables, excluding those with comments will be followed by correlational tables. The correlations between each of the seven topic sections and age, years of experience, highest education level, dependent children, ethnicity, hours of work, current position or role and area of work.

Over the available time for child health nurses to complete the survey 63 contributed to the research. One response was found to have a significant amount of missing data and was discarded due to the risk of skewing the data (n=62). Considering the number of child health nurses in the Waikato, the industrial action involving potential participants, seasonal increase in workload and the intended number of participants (80) this response rate was satisfactory.

Table 4

Demographic characteristics of the sample

Age	Number of responses (N=62)	Percentage
20-29	14	22.58
30-39	14	22.58
40-49	18	29.03
50+	16	25.81

Ethnicity		
NZ European	45	72.58
Māori	7	11.29
Asian	3	4.84
Other	7	11.29
Dependent children		
Yes	30	48.39
No	32	51.61

There is an even spread of ages across the sample (see Table 2) with nearly three quarters of the sample identifying as New Zealand European. Eleven percent of the nurses identify as Māori, according to the Nursing Council of New Zealand (2018) 7.1% of the registered nurse workforce identify as Māori and 15% of the whole population identify as Māori as at the last census in 2013 (Statistics New Zealand, 2014). One participant responded that they were New Zealand – Māori which increases the number of Māori to eight (n=8, 12.9%). There is a relatively equal number of participants who do or do not have dependent children.

Table 5

Nursing Experience and Highest Qualification of survey participants

Highest qualification	Number of responses (N=62)	Percentage
Diploma in Nursing	7	11.29
Bachelor's degree	24	38.71
Postgraduate Certificate	18	29.03
Postgraduate Diploma	10	16.13
Master's degree	3	4.84
Years since registration		
0-4	11	18.03
5-9	8	13.11
10-14	11	18.03
15+	31	50.82
Frequency missing	1	

Half of the participants (n=31, 50%) had completed postgraduate education. With nearly 5% (4.84%) having completed Master's level qualifications. Correspondingly half (n=31, 50%) of the survey participants have more than 15 years of nursing practice experience.

Table 6

Work profile of survey participants

Hours of work *	Number of responses (N=62)	Percentage
8 hour shifts	45	72.58
12 hour shifts	0	0
Office hours	11	17.74
Oncall	2	3.23
Full time	22	35.48
Part time	24	38.71
Other	2	3.22
Current position/role		
RN I	5	8.06
RN II	6	9.68
RN III	11	17.74
RN IV	20	32.26
CNS	4	6.45
CNE	3	4.84
Other	13	20.97
Area of work		
DHB Hospital	41	66.13
DHB Community	11	17.74
Private Hospital	2	3.23
Other community agency	8	12.90

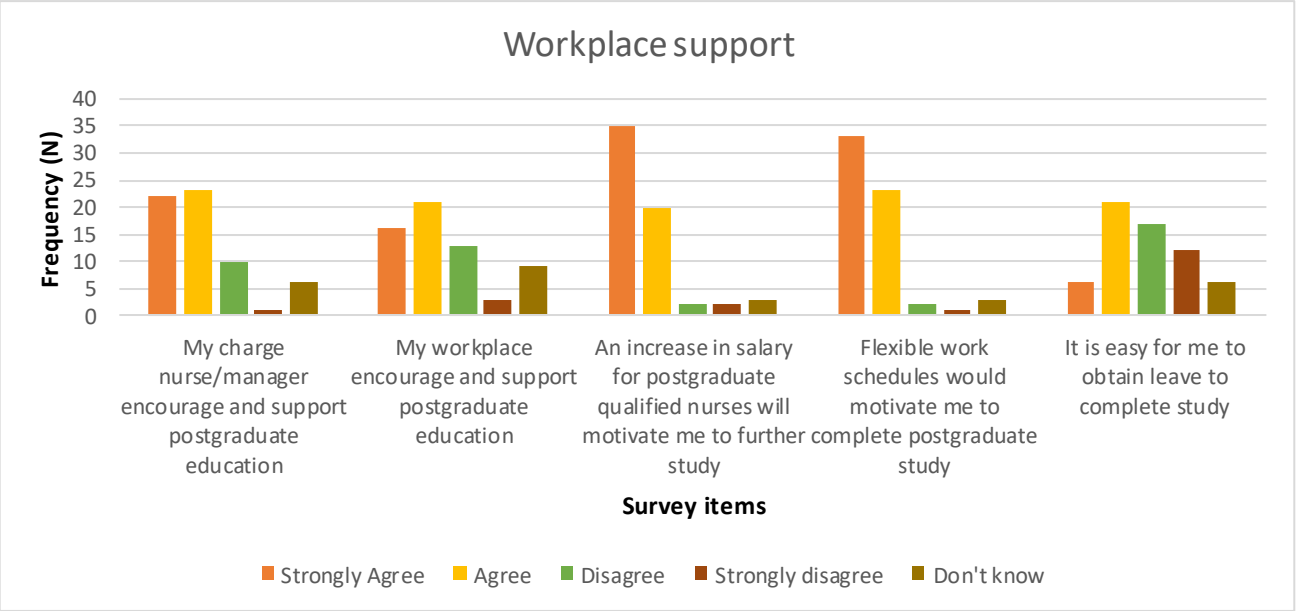
*The variable "Hours of work" was a multiple-choice item

The data relating to the hours of work included the possibility of responding to more than one option. For example, a participant may work 8-hour shifts part time with some on call component to their work. Hence the value for N could be greater than N=62. No survey participants work 12-hour shifts and two participants work a combination of roles and hours. The half of the survey participants are proficient (RN III) or expert (RN IV) nurses (n=31, 50%).

Within the variety of work areas two thirds of the cohort work in hospitals managed by the publicly funded District Health Board (DHB). These hospitals include urban and rural settings. The majority of the respondents (n=52, 83.8%) work for the DHB in either the hospital or community settings.

Figure 1

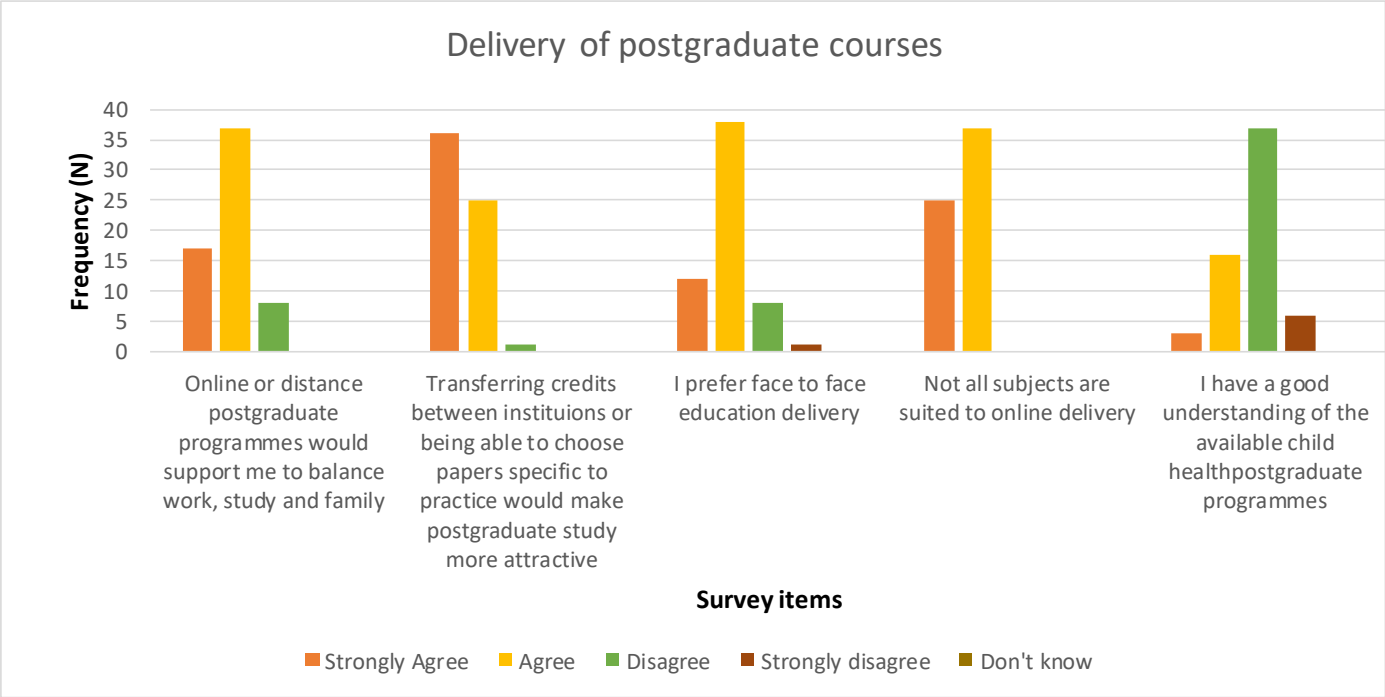
Frequency of responses relating to Workplace support



The data presented shows that 72.6% (n=45) of participants agree or strongly agree that their manager encourages and supports postgraduate education. In contrast only 59.7% (n= 37) agree or strongly agree that their workplace or healthcare provider does the same. More than 50% of the participants strongly agree that an increase in salary for postgraduate qualified nurses (n=55) and more flexible rostering (n=56) would motivate them to study. Less than 10% (n=6) of respondents strongly agree that it is easy to obtain leave for education.

Figure 2

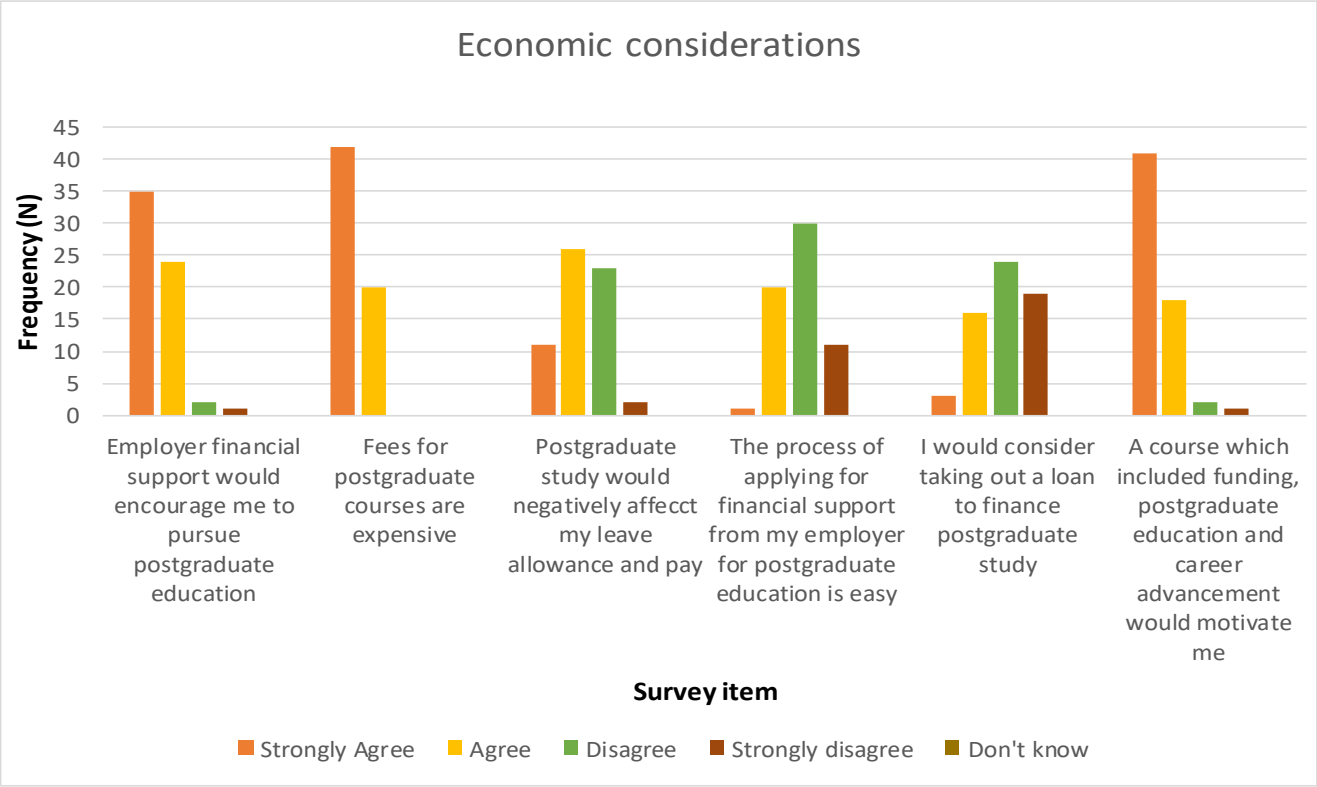
Frequency of responses relating to delivery of postgraduate courses



This section of survey data shows that 12.9% (n=8) of the participants disagree that flexible courses would support a balance of work, family and study life. There was only one respondent who disagreed that choice of paper and flexibility between learning institutions would make postgraduate qualifications more attractive. More than 85% (85.5%, n=50) of the participants prefer face to face education delivery. All of the nurses (n=62) who completed the survey agreed that not all topics are suitable for online delivery. Nearly 70% (69.4%, n=43) do not have a good understanding of what is available for nurses working in the child health field.

Figure 3

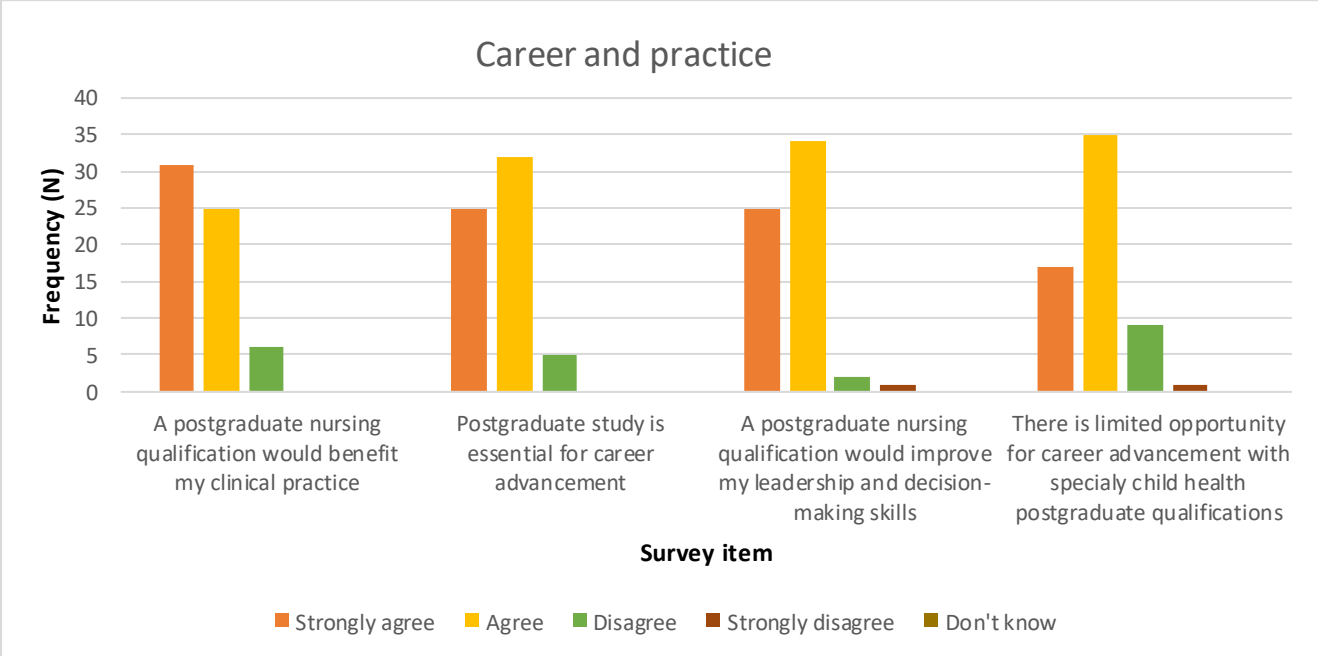
Frequency of responses relating to economic considerations



Almost all (n= 59, 95.2%) of the participants agree or strongly agree that financial support from their employer would encourage enrolment into advanced education. All (100%, n=62) those surveyed agreed or strongly agreed that fees for postgraduate courses are expensive. Nearly 60% (59.7%, n= 37) agree or strongly agree that further education would impact negatively on leave allowances and pay. Two thirds (66.1%, n=41) disagree or strongly disagree that applying for support from their employer is easy. Of 30.6% (n= 19) would consider taking out a loan for postgraduate education. The final item in the survey relating to economic considerations is about a course which is funded and includes education and career advancement 95.2% (n=59) of respondents agreed or strongly agreed that this would encourage them to engage in postgraduate education.

Figure 4

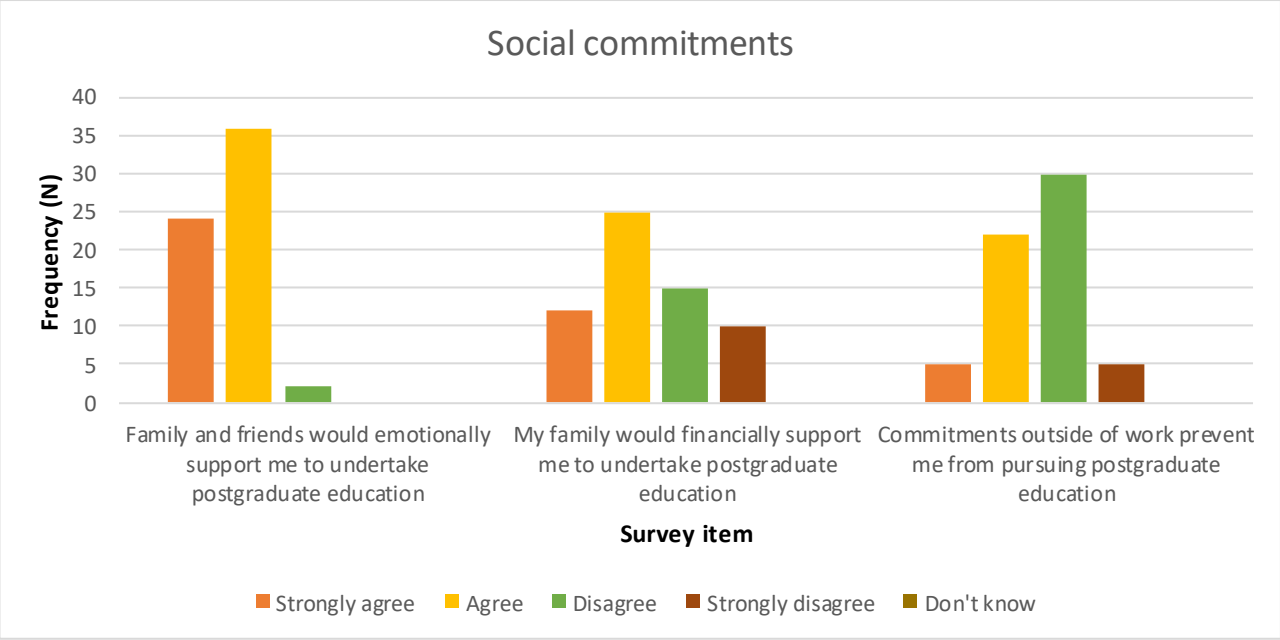
Frequency of responses relating to career and practice



Of the data gathered in relation to career and practice, 50% (n=31) of the respondents strongly agreed that postgraduate education would benefit their clinical practice. Five (8.1%) of the respondents disagreed that postgraduate qualifications were essential for career advancement. 95.1% (n= 59) of the nurses who participated in the survey agreed or strongly agreed that further advanced study would improve their skills relating to leadership and decision making. More than 80% (83.9%, n=52) of those surveyed agreed or strongly agreed that there are limited child health specific career opportunities available.

Figure 5

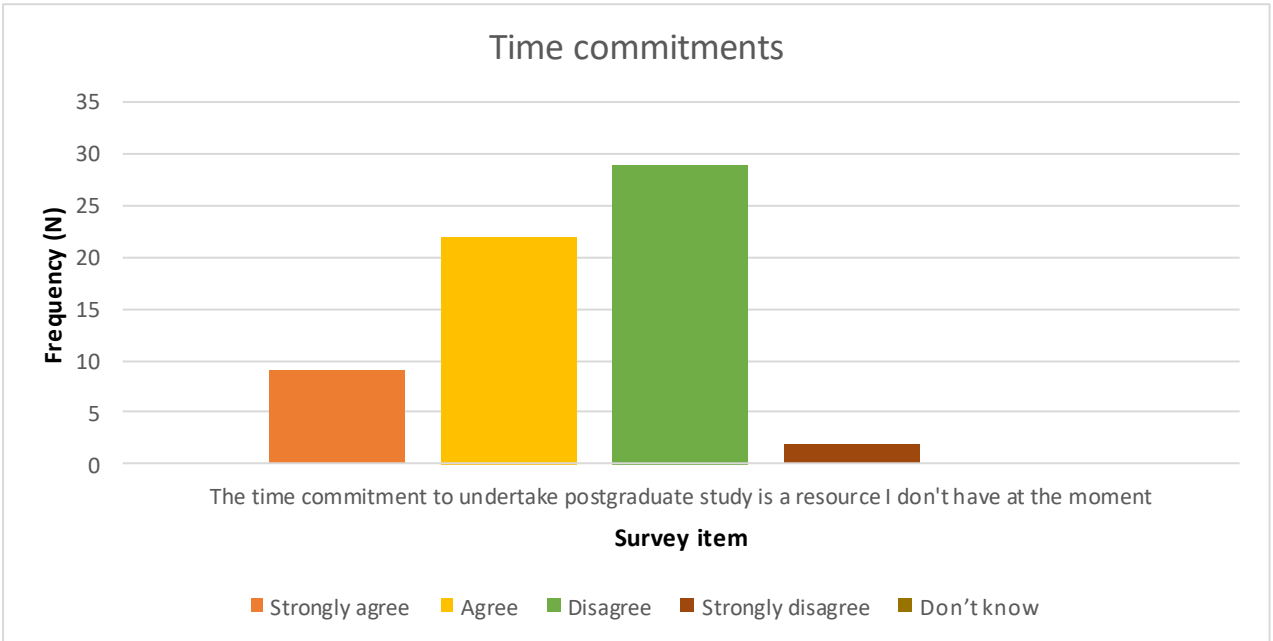
Frequency of responses relating to social commitments



Survey responses in relation to social commitments show that 96.8% (n=60) of nurses surveyed agreed or strongly agreed that they would receive emotional support from family and friends to complete further study. However only 59.7% (n= 37) agreed or strongly agreed that they would receive financial support from their family and friends. More than 50% (56.5%, n=35) of the nurses surveyed disagreed or strongly disagreed that outside commitments prevented them from engaging in postgraduate study.

Figure 6

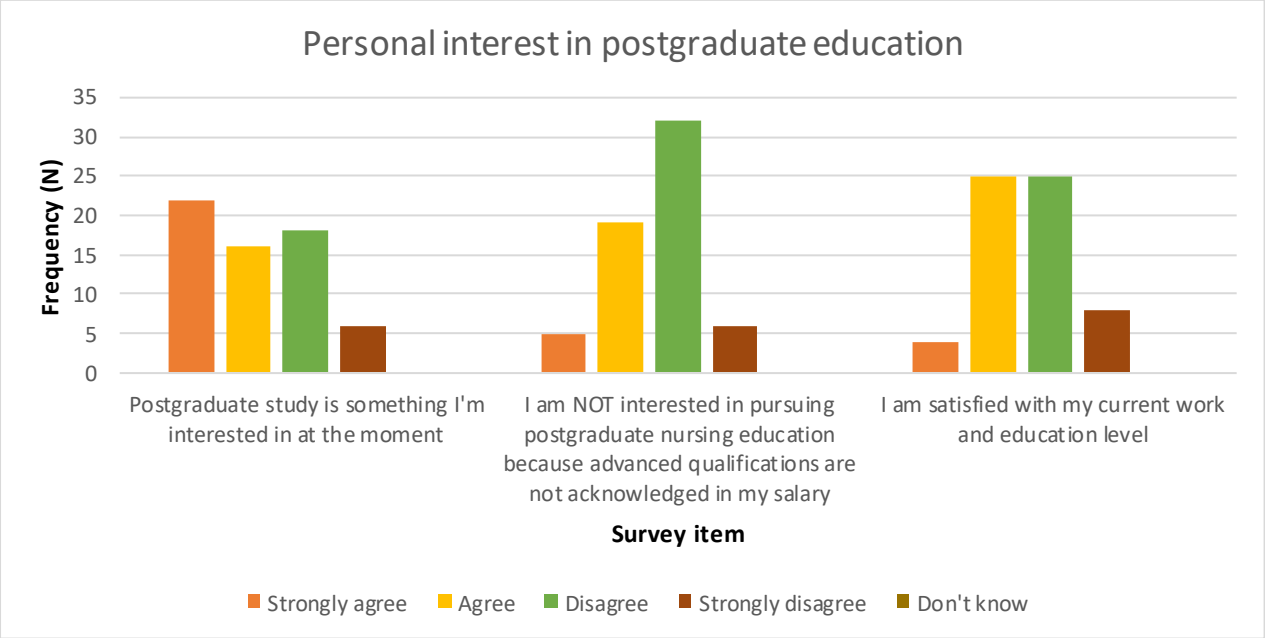
Frequency of responses relating to time commitments



The question relating to having time to commit to further education provided data that was split 50:50. Half of the respondents (n=31) disagreed or strongly disagreed that they didn't have time for postgraduate education.

Figure 7

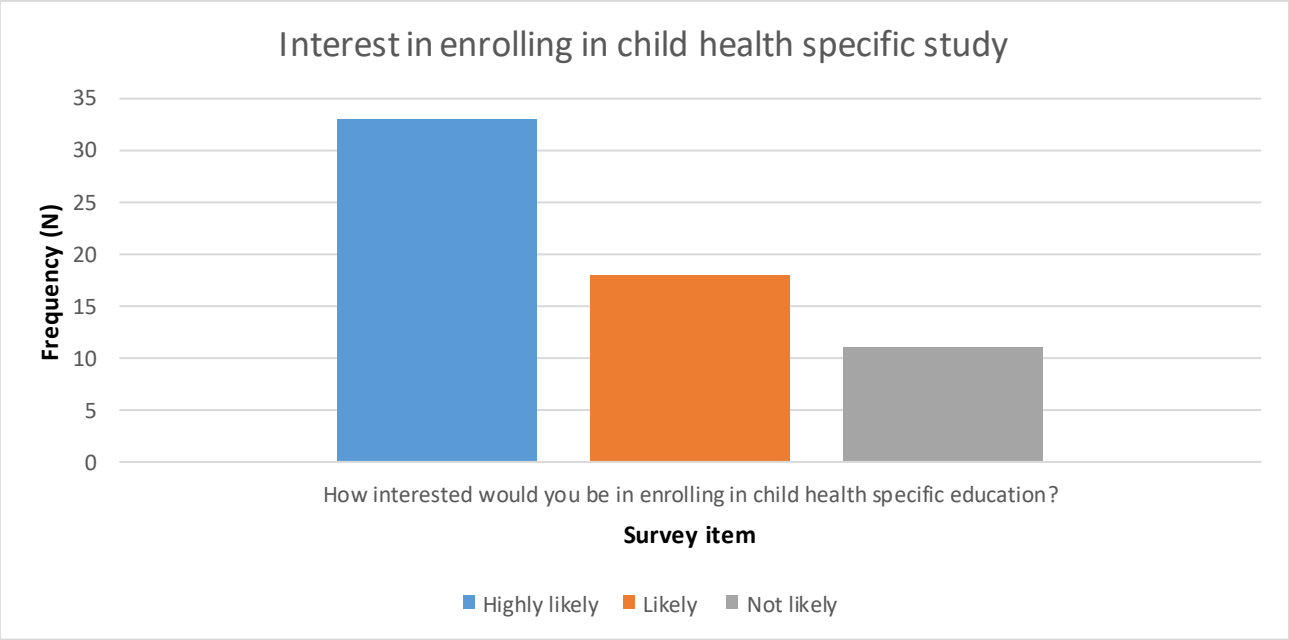
Frequency of responses relating to personal interest



More than 60% (61.3%, n=38) of the nurses surveyed agreed or strongly agreed that they are interested in postgraduate study. The same number (61.3%, n=38) disagreed or strongly disagreed that renumeration recognising postgraduate qualifications was the reason why they weren't interested in advanced education. Slightly more than half (53.2%, n=33) of those surveyed disagreed or strongly disagreed that they are satisfied with their current work and education qualification.

Figure 8

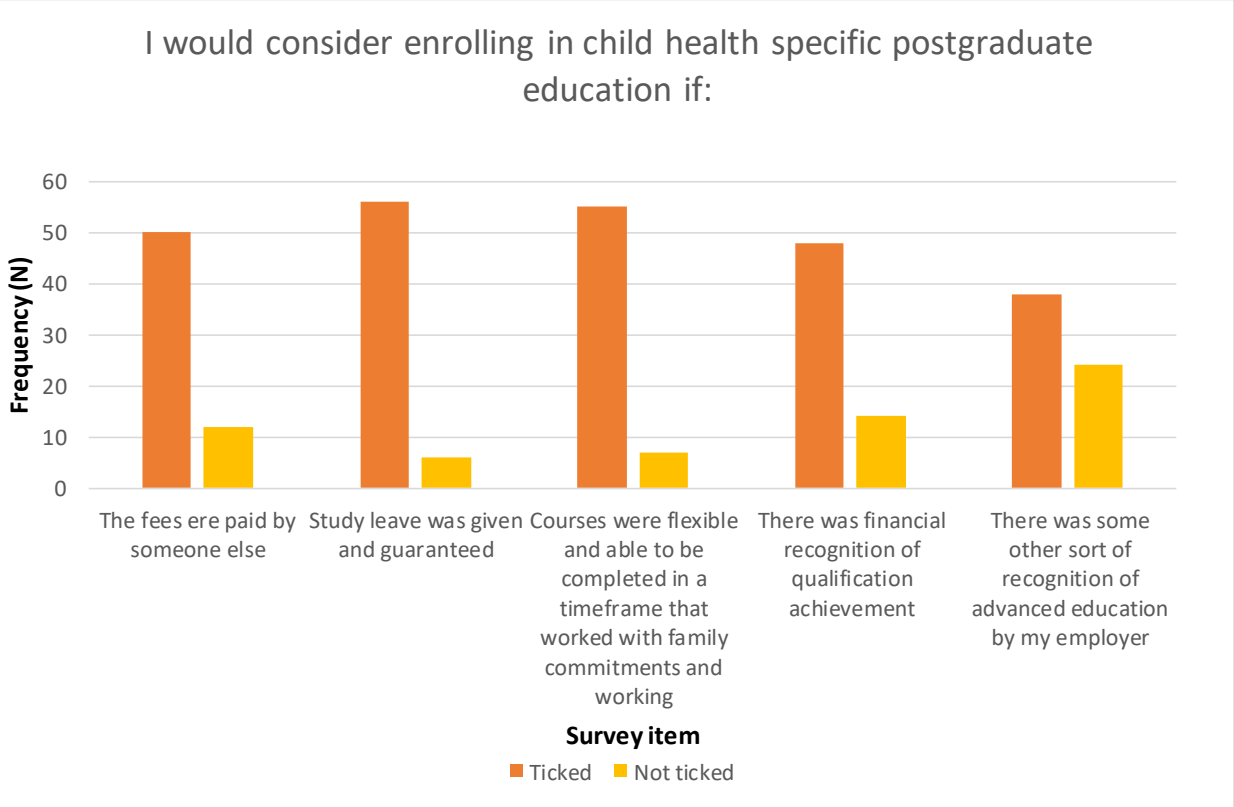
Frequency of responses relating to interest in enrolling in child health specific education



Eleven (17.7%) of the 62 nurses surveyed responded that they were not likely to be interested in enrolling in child health specific postgraduate education.

Figure 9

Frequency of enrolling if barriers are removed



Fifty (80.6%) of the 62 nurses who participated in the survey responded that they would consider enrolling in child health specific postgraduate education if the course fees were covered by someone else, study leave was granted and guaranteed, and courses were flexible to fit in with work and family.

Other barriers

As part of the survey tool, nurses were given space to offer other options to support removal of deterrents and barriers to postgraduate education. Four participants offered thoughts: "It should be encouraged more by CNM and Organisation", "If it was face to face – online was dreadful experience and I feel traumatised now and not capable of doing any further study", "Different positions to advance in to", "The topics studied were relevant to my practice".

Topics

The final item on the questionnaire prior to demographic questions was: "what topics would you like to see included in a child health specific course?". Of the 62 responses 36 survey participants offered suggestions on topics they would like to see in child health postgraduate education. The responses ranged from one or two words to short paragraphs. Two of the longer responses used the space and opportunity to share their experience of postgraduate education. Across the responses there is a broad range of areas of focus. Seven respondents requested assessment skills, nine asked for education around chronic illness in children, eight wished for information about social issues related to caring for children and their families. Additionally, nine of the nurses surveyed suggested education relating to spirituality, cognitive development and mental health in children. Other topics requested were, pain management, palliative care, oncology, prematurity, "the surgical patient", community care, emergency management of the deteriorating child and well child education.

Correlations

The following reports the correlation between ordinal and continuous variables and their statistical significance (p=0.05). Correlation using Spearman Rho for age, years since registration and highest nursing qualification resulted in statistical significance in the coefficients for the variables of highest nursing qualification and delivery of postgraduate courses with a positive relationship Rho 0.29473 (p=0.021).

Table 7

Significant correlational values using Spearman for highest nursing qualification

Spearman Correlation Coefficients Prob > [r] under H0: Rho =0 Number of Observations							
	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Highest nursing qualification	0.08276	0.29473	0.19874	0.16970	0.11905	-0.17277	-0.04672
p	0.5225	0.0201	0.1215	0.1873	0.3567	0.1793	0.7184

Table 8

Point-biserial correlation for ethnicity, and dependent children

Point Biserial Correlation Coefficients, N = 62 Prob > [r] under H0: Rho =0							
	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Dependent children	-0.27751	0.13498	0.08780	0.07096	-0.00887	0.02571	-0.32629
p	0.0290	0.2956	0.4974	0.5837	0.9454	0.8428	0.0096
Ethnicity							
Māori	0.29036	0.19883	0.12744	0.11352	-0.04062	-0.05648	-0.04230
p	0.0221	0.1213	0.3236	0.3797	0.7539	0.6628	0.7441
Asian	-0.14398	-0.13578	-0.07130	0.00403	-0.07527	0.30880	-0.11013
p	0.2642	0.2927	0.5819	0.9752	0.5610	0.0146	0.3942
Other ethnicity	-0.08102	-0.07155	-0.13376	-0.11506	0.22280	-0.26072	0.04663
p	0.5313	0.5805	0.3000	0.3732	0.0818	0.0407	0.7190

The correlation between binary and continuous variables using point-biserial correlation coefficients with the coding: 1 = possessing the characteristic, 0 = not possessing the characteristic provided significant p values and negative relationship for the variables of dependent children Rho -0.27751 (p=0.0290) and personal interest Rho -0.32629 (p=0.0096).

For the variable of ethnicity, a statistically significant relationship was shown in the variables of Māori and workplace support with a positive relationship Rho 0.29036 (p=0.0221), and for the variable of time commitments for those identifying as Asian, with a positive relationship Rho 0.30880 (p=0.0146) and those of other ethnicity with a negative relationship Rho -0.26072 (p=0.0407).

Table 9

Point-biserial correlation for hours of work, level of practice and area of work

Point Biserial Correlation Coefficients, N = 62 Prob > [r] under H0: Rho =0							
	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Hours of work							
Part time	-0.34235	-0.22452	-0.23290	-0.13258	0.03706	0.05553	-0.21266
p	0.0065	0.0794	0.0685	0.3043	0.7749	0.6682	0.0970
Role/position							
RN I	0.27988	0.17004	0.14736	0.03812	-0.17097	0.07201	0.25892
p	0.0276	0.1864	0.2531	0.7687	0.1840	0.5781	0.0422
RN II	0.28692	0.13770	0.10838	0.03608	-0.17567	-0.04803	0.08792
p	0.0238	0.2858	0.4018	0.7807	0.1720	0.7109	0.4968
CNS	0.00559	0.06011	0.01410	0.33210	-0.0073	-0.12385	-0.02886
p	0.9656	0.6426	0.9134	0.0084	0.9524	0.3375	0.8238
Other role/position	0.06615	-0.02647	0.11558	-0.05666	.28628	0.15614	-0.19157
p	0.6095	0.8382	0.3710	0.6618	0.0241	0.2256	0.1358
Area of work							
Other community agency	0.23392	0.27265	0.20752	0.11352	0.01795	0.00605	0.06697

p	0.0673	0.0320	0.1056	0.3797	0.8899	0.9628	0.6050

Of statistical significance when correlating work hours with the survey sections part time work and workplace support shows a significant negative relationship, Rho -0.34235 (p=0.0065). Level of practice provided significant data at differing levels of nursing experience and role. RNI with workplace support resulted in a statistically significant positive relationship, Rho 0.27988 (p=0.0276) and RNI with personal interest shows a statistical positive relationship, Rho 0.25892 (p=0.0422). RNII similarly produced a positive significant P value with workplace support, Rho 0.28692 (p=0.0238). Clinical nurse specialists' responses provided positive statistically significant correlational coefficients for career and practice, Rho 0.33210 (p=0.0084). Of the variables available those in other roles answers produced positive significance in correlation with social commitments, Rho 0.28628 (p=0.0241).

Area of work produced statistically significant data for the variable's other community agency and delivery of postgraduate courses, with a positive relationship Rho 0.27265 (p=0.0320).

Summary

The results presented provide a report of the findings of each of the phases of this mixed methods iterative sequential study. The survey search resulted in a questionnaire which is based on literature with a strong validity in both construct and content. This tool was then validated for the specific context of this project by the focus groups and further qualitative data was gathered and incorporated into the final version. The finalised survey was disseminated across the areas of practice to garner as much information as possible about the experience of Waikato child health nurses in relation to postgraduate education. The responses from the survey tool have been collated and frequency and correlations reported. Statistically significant results using Spearman's correlation have been outlined above and will be discussed in more depth in the following chapter.

Chapter five: Discussion

The purpose of this chapter is to critically discuss the study results of this research project. Using an iterative sequential mixed method approach the aim of the research was to investigate what gets in the way of Waikato child health nurses undertaking child health specific postgraduate study. This discussion will include the key themes from the focus groups as well as significant values from the survey data. These results will be discussed in relation to current literature and applicable inferences made relating to the variables and themes of the research focus.

Workplace support

Adjustments to the survey tool as an outcome of the focus groups included the separation of the item relating to workplace support into a more specific manager and employer support statement. The results from the survey reflect this. Of the nurses surveyed, 72.6% agreed or strongly agreed that their manager supported further education; however, this percentage drops to only 59.7% for employer support. This is reflected in the focus group discussions wherein participants felt that their immediate managers supported further development while managers also work within a process which is difficult and a barrier to begin the process of advanced study. Ross, Barr and Stevens (2013) acknowledge that both nurses and managers understand the need for professional development, yet funding is not prioritised to support this. This inconsistency of support is reflected in further literature (Bellfield & Gessner, 2010; McCarthy & Evans, 2003; Ng et al, 2015; Spence, 2004b) suggesting that an encouraging attitude of specialist postgraduate development is needed at institutional level to support nurses to gain advanced specialist knowledge and skill. Nurses share their experiences and challenges with each other. The prospect of complex, daunting systems to garner support deters colleagues from beginning to consider what they might like to study. Alternatively, they need to know what they want to study and be passionate enough or committed enough to the idea of further knowledge to overcome the complex process to apply for support. Kinsella, Fry and Zecchin (2018) found that managers are significant in supporting motivation to complete further study and that the nurse's intrinsic motivation is a key factor in engagement with postgraduate education. This theme is echoed by Hallinan and Hegarty (2016) acknowledging the effect of personal and professional motivation. Interestingly, much of the literature endorses the role of manager support; however, there is less discussion of institutional support versus manager or charge nurse support. Cooley (2008) and Ng et al (2015) mention a lack of organisational support for further education. This supports the results from this study and the voices of the nurses in focus groups from the public system (n= 52, 83.9%).

Regarding the support for nurses beginning postgraduate education, funding processes are key. The item relating to ease of access to financial support resulted in two thirds (66.1%) of the respondents disagreeing or strongly disagreeing that it is easy to apply for funding. Only one nurse strongly agreed.

It is important to acknowledge that response to these items will depend on the healthcare provider funding process and having surveyed nurses from public and private sectors the funding models will differ.

Less than 10% of nurses surveyed strongly agreed that it is easy to get leave for study. Overall for the question regarding taking paid time off work to study the results are fairly even in that 46.8% disagree or strongly disagree that it is easy to obtain leave and 43.6% agree or strongly agree that leave is easy to secure for study. This may reflect the experience of the nurse in relation to his/her employer. Literature supports this concept of competing responsibilities and priorities (Black & Bonner, 2011; Hallinan & Hegarty, 2016; Ross, Barr & Stevens, 2013; Yfantis, Tiniakou, Yfanti, 2010); patient safety rightly takes priority. It is, however, a frustration which was evident in the focus group findings too. I suggest this experience contributes to the overall lack of support. It is unlikely that nurses regard patient safety as less important than their education. Yet nurses seem to find that getting to the point of being able to attend study days or being given time to complete further education is a complex process, if one which is looked forward to by nurses. To have this leave revoked at the last minute is disappointing and frustrating, particularly when nurses make a commitment to complete a qualification. Study days are often a time of a slower pace to work and there could be a sense of reward in attending professional development. Perhaps this factor is a reflection of staffing levels in the child healthcare units. Correspondingly, it is a concern, reported by nurses in the public health sector focus group, that nurses who are self-funding postgraduate qualifications are not guaranteed any support by their employer or manager. This would deter nurses further from advancing their education.

Rostering continues to be a source of frustration reported by the focus groups and is supported by the survey results in relation to flexibility to apply for leave or have shifts which support study. More than 50% of the nurses strongly agreed that increased flexibility in rosters would increase in their motivation for further education. Again, this is where colleagues' experiences observed by potential students impacts negatively on the notion of continuing specialisation. Having leave revoked due to workload is reported by the focus group members and a barrier to considering engaging in postgraduate education. 56 of the 62 nurses surveyed (90.3%) agreed that they would consider enrolling in child health specific postgraduate education if study leave was given and guaranteed.

Funding and economic considerations.

Financial issues are a significant concern for nurses. During the time period of this project the nursing workforce undertook significant industrial action to negotiate for better pay and conditions. Nurses have not had a significant pay increase commensurate with other professions of similar education and responsibility (Edmunds, 2018) or an address of shortfall in funding for health for the last 10 years (New Zealand Nurses Organisation (NZNO), 2018b). The survey items which asked questions relating to money and funding were all clearly biased towards responses which indicated a lack of financial resource and

support. All (100%) of the nurses who participated in the survey agreed or strongly agreed that fees for postgraduate study are expensive, an experience which is reflected internationally (Ng, Ooi & Siew, 2015). More than 95% (95.2%) agreed or strongly agreed that financial support from their employer would encourage them to study, a finding which is supported by others (Hallinan & Hegarty, 2016; Johnson & Copnell, 2002; McKinlay, Clendon & O'Reilly, 2012; Ng et al, 2015). More than 50% of those surveyed strongly agreed that a subsequent increase in pay would motivate them to study. This is echoed by Spence (2004b) and Rolls (2005) who outline that nurses are less inclined to take on further study and cost when they would be paid the same as a peer who hadn't had to use the time and resource to complete postgraduate qualifications. Johnson and Copnell (2002) found that 70% of their participants felt that a lack of remuneration for advanced qualifications was a barrier to considering further study.

Nearly 60% (59.7%) agreed or strongly agreed that study would negatively impact on the leave balance or allowance and pay an experience supported by Cooley (2007) and Black and Bonner (2011) in their identification of paid study leave as a key support to nurses completing postgraduate qualifications. Hallinan and Hegarty (2016) found that paid leave was an enabler to postgraduate education in their study primary health care nurses. These findings suggest that nurses use their annual leave or drop paid working hours to create the time needed to complete further education. Of course, this may have a component of employer input and philosophy of professional development support. If a nurse is employed by an institution which provides support for the nurse to complete postgraduate education in a way that does not rely on the individual nurse using personal leave or reducing working hours to complete the qualification, then the response to this item would be in the other 40% of respondents.

The survey showed that nurses were reluctant to take on financial debt in the form of a loan to fund postgraduate education. One focus group member had taken out a loan to fund her postgraduate study; however nearly 70% (69.4%) disagreed or strongly disagreed to the statement relating to consideration of using a loan to fund further qualifications. This result may reflect the situation in which many of these nurses already have student loans to service from their undergraduate qualification. This notion is reflected in literature, Ng, Ooi and Siew (2015) discuss the financial commitment nurses reported in their research and how access to funding reduces the financial burden nurses are required to service. It is important to recognise that whilst further education and skill might be a professional goal for child health nurses, they might also have other significant financial responsibilities in the form of mortgages and family financial duties.

There was an overwhelming response (95.2% agree or strongly agree) to the questionnaire item relating to a potential course which addressed the cost of postgraduate education and the combination of the qualification and career advancement/increase in level of practice. In the public health sector career advancement or an increase in level of practice generally includes an increase in pay and allowances per the Multiemployer Collective Agreement (MECA) (NZNO, 2018a). Literature supports the concept of a lack of integration of postgraduate education and career advancement and that this is key factor for nurses contemplating their career pathway (Bellfield & Gessner, 2010; Hallinan & Hegarty, 2016;

Johnson & Copnell, 2002; Ng, Ooi & Siew, 2015; Spence, 2004b). Perhaps there is an opportunity to develop and design a specialist course which integrates the requirements to advance in level of practice with a postgraduate qualification in a New Zealand context.

Course design and delivery

Of interest in the results for this theme is the number of nurses who agreed or strongly agreed that distance or online delivery would support their work/study/home life balance (87.1%) and yet a similar number (85.5%) preferred face to face education delivery and 100% of respondents agreed or strongly agreed that not all content is suited to the online environment. It could be inferred from these results that these nurses are prepared to engage in a course design which is not necessarily their preferred way of learning in order to maintain a work/life balance which would also support their further advanced education. The importance of course design as a key deterrent to engaging with postgraduate education is supported in literature. Cameron, (2017), Hallinan and Hegarty (2016), and Trotto, (2014) all outline the importance of course design and flexibility to support further advanced education in nursing, highlighting the impact of travel and the personal and professional logistical requirements necessary for nurses to attend face to face delivery.

Choice of course and transferring of credits between institutions are significant issues. Only one nurse disagreed that flexibility of moving credits across courses would make advanced study more attractive. Of particular note here is the data from the focus groups. The current funding model for the first focus group, who are employed by the publicly funded district health board, is that they have no choice in the papers for which they are funded. The NEtP programme funds an assessment paper which is not child health specific. Then, once these nurses are practicing at RNII level, they are funded for a quality project paper. The nurses in the focus group expressed their frustration at not having the choice to specialise under the current model and priority for funding. Certainly, there is evidence that a key component of engagement with learning content and further education is impacted upon previous experience of education. This is supported by Ni et al. (2014) who identified that previous education experiences impact on motivation to engage with continuing education. Kinsella, Fry and Zecchin (2018) reflect the importance of the individual nurse's intrinsic motivation to further study as a key factor in engagement with postgraduate education. Encouraging further specialist study in nurses who have not been given a choice in their previously supported postgraduate education or where specialty courses are not a priority for funding for RNs is an issue to consider. This is where applicability of content and removal of some of the deterrents and barriers is key to motivation.

Even before considering what to study, it is important to be able to make an informed choice about qualification structure and what is available in the specialty area. Nearly 70% (69.4%) of the nurses who completed the surveys did not feel that they had a good understanding of what was available in the sphere of child health postgraduate programmes. Essa (2011) and Gorczyca (2013) found that a lack of

knowledge of courses and academic processes posed a challenge for nurses considering postgraduate study. Further work is needed by educational institutions who are providing child health specific education to widen their information communication. This barrier may be facilitated by senior nurses and managers who are disillusioned with the difficult process to fund specialist advanced qualifications and know the likelihood of providing funding support is low. The priorities for funding within the public sector are NEtP participants, senior nurses or those on the nurse practitioner pathway, rather than any other nurses. Nurses may regard the investigation of options for specialist study as pointless if it is unlikely to be financially supported by their employer and if they are not in a place financially to undertake that commitment independently. This may reinforce the 'why bother' attitude reported by Spence (2004b). McKinlay, Clendon and O'Reilly (2012) comment that there may be a lack of awareness of what the focus of postgraduate qualifications is and what nurses who have achieved these credentials could bring to practice.

Career and Practice

The general consensus of the nurses who completed the survey is that postgraduate qualifications would benefit their practice. Half (50%) of the respondents strongly agreed. 90.3% agreed or strongly agreed that their clinical practice would be strengthened by further advanced nursing education. More than 95% (95.1%) agreed or strongly agreed that further advanced education would improve their leadership and decision-making. This result is supported by Spence (2004b) locally and by Ellis and Nolan (2005) and Clark, Casey and Morris (2015) internationally, noting a growth in clinical confidence and leadership for nurses who have completed higher nursing qualifications. Of the 62 participants, 57 agreed that postgraduate education was essential for career advancement. This is echoed in the literature whether in relation to specialty specific education (Hallinan and Hegarty, 2016; Johnson & Copnell, 2002) or for promotion into senior nursing roles (Bellfield & Gessner, 2010; Massimi, 2017). Therefore, it could be concluded that Waikato child health nurses understand the benefits of further advanced education to their practice and profession and so this understanding of why postgraduate education would be useful is not a barrier to engaging in further qualifications.

More than 80% (83.9%) of nurses responded in agreement with the statement regarding the limited career advancement opportunities in child health. This finding is echoed in Johnson and Copnell (2002) who found that the lack of promotional opportunities was a deterrent to further education. So, are the nurses not engaging in further education because there is no role to advance into on completion of the qualification? Nurses are aware that postgraduate education is necessary for career progression; however, the limited roles to potentially step up in to may prove a deterrent to nurses committing time and resource required for education without any prospect of promotion. Another reason for nurses not considering specialty qualifications is that the nurses in senior roles may not understand what the focus of Master's-level or postgraduate qualification is, beyond the applicant having achieved that level of study. Perhaps more information is required about the levels of postgraduate education and the

benefits of specialist skills to their bedside care, considering undergraduate education in New Zealand does not include sufficient child health specific content.

Social and Time commitments

The responses relating to family and friend support suggest that the family and friends of most nurses (96.8%) would emotionally support them to study further. However, 59.7% agreed or strongly agreed that their family and friends would financially support their advanced education, supporting the notion that funding continues to be a major barrier to committing or contemplating postgraduate study. These findings are reflected in the literature by Ng, Ooi & Siew, (2015), Bellfield and Gessner (2010) and Davids (2006).

More than half of the respondents (56.5%) disagreed or strongly disagreed that out of work commitments prevent them from pursuing postgraduate education. Half (50%) of nurses who completed the survey disagreed or strongly disagreed that they didn't have the time resource to engage in postgraduate study. This contrasts with much of the literature which discusses family commitments as a deterrent to postgraduate education (Davids, 2006; Hallinan & Hegarty, 2016; Ross, Barr & Stevens, 2013; Spence, 2004b). This is a shift in attitude which could be investigated further. What is preventing the uptake of further study if nurses have time and support from family and they understand the positive impact further education would have on their practice and career?

Personal interest

The importance of personal interest in further education is a key theme when considering factors which might negatively impact engagement with postgraduate courses regardless of the subject. If someone is not interested in continuing their education journey, then the supports which may or may not be available are not important. However over 60% (61.3%) indicated that they are interested (agreed or strongly agreed) in postgraduate education and the same number of those surveyed disagreed that the reason they are not interested is because postgraduate qualifications are not reflected in their salary. More than half (53.2%) of the nurses responded that they are not satisfied with their current work and education level. Again, 51 of the 62 nurses who completed the survey indicated that they were highly likely or likely to be interested in enrolling in child health specific education. Thus, we could argue that there is interest in postgraduate education, potential motivation to undertake further advanced study (Kinsella, Fry &Zecchin, 2018) and that reflection of qualifications in salary is not the only deterrent to committing to completing Master's-level or postgraduate courses (Bellfield & Gessner, 2010, Hallinan & Hegarty, 2016; Johnson & Copnell, 2002; Massimi, 2017; Ng, Ooi & Siew, 2015). This could further indicate that motivation and support from outside of the workplace are not barriers to considering postgraduate child health education.

The final survey item provided participants with a sort of wish list of deterrents which could be removed. They included: the fees were paid by someone else, study leave was given and guaranteed, courses were flexible and able to be completed in a timeframe that worked with family commitments and working, there was financial recognition of qualification achievement and there was some other sort of recognition of advanced education by my employer. The top response was that leave was given and guaranteed (n=56, 90.3%), followed by flexible courses (n=55, 88.7%), then funding support (n=50, 80.6%). Financial recognition received 48 'votes' (77.4%) and other recognition was chosen by 38 nurses (61.3%). These results offer some idea of the order of priority of support and the weighting of the deterrents to postgraduate education, with workplace support, course design and funding the main three concerns for nurses. Bellfield and Gessner (2010) and Ng, Ooi & Siew (2015) found similar situations in their research, that finances and time are the most common concerns for nurses considering commitment to further qualifications.

Correlations

De Vaus (2002) offers that in social practice research Spearman's Rho (r_S) values of 0.3 provides a relatively strong correlational value. This study resulted in 13 statistically significant p values ($p<0.05$) with r_S 0.258 – 0.342 aligning with the literature supporting the strength of these findings. When critically analysing each of these relationships' inferences will be offered and debated.

Of the nurses who responded to the survey half (31/62) had completed postgraduate education; postgraduate certificate, postgraduate diploma or Master's degree. When running correlational equations for this demographic item $r_S = 0.29473$ ($p=0.021$) for delivery of postgraduate courses items suggesting that courses design and delivery is a significant factor for those who have already completed postgraduate education. The items in this section included the preference for flexible content delivery to support work/life balance, the importance of choice in paper selection (as opposed to this being prescribed by their employer) and understanding of the child health postgraduate education options available. The correlational result could reflect their experience of advanced study to date. These nurses respond to this item from their lived experience of completing postgraduate qualifications. Therefore, they have a view of the consequence of course design on the learning experience and on their life and factor this into their consideration when investigating topics of study and the commitment required to complete further qualifications. They could also appreciate the value of choice of paper topic as opposed to completing prescribed papers. Of the nurses who responded to the survey, 12 have both postgraduate qualifications and children and 19 had postgraduate qualifications but no dependent children. Consequently, it could not be inferred that having dependent children is of consequence when evaluating course design. Perhaps it is wider than just having dependent children and more of a focus on the balance between work, study and home life. These ideas are discussed in the literature, Ross,

Barr and Stevens (2013) outline the benefits of online course delivery to work life balance, Hallinan and Hegarty (2016) stress the importance of using innovative technology to provide education at distance. Black and Bonner (2011) focussed on nurses who are undertaking postgraduate study via distance and found that all of those who completed a Master's degree did so via distance. Johnson and Copnell (2002) reviewed a specific course and found that the design of the course had a significant impact on engagement with the programme.

The relationship between the section on workplace support and nurses with dependent children resulted in a negative relationship (r_S = -0.27751, p=0.0290). A negative relationship suggests that those without children are more likely than those without children to agree that workplace support is important. Of the nurses who completed the questionnaire 30 of the 62 had dependent children. Of those who indicated that they had dependent children 16 nurses worked part time. Correspondingly, the age of those nurses who specified that they had children was generally over 30 (n=29). Considering these aspects, the findings suggest that children are not a key factor in relation to requesting support for advanced qualifications. That younger nurses without children (n=13, <30 years old with no children) are feeling encouraged by their manager and supported by their organisation and that it is easy for them to obtain leave. This could potentially reflect the workplace support they receive as newer nurses who are benefiting from being a priority for funding and support via the NEtP programme in the public sector (Waikato District Health Board, n.d.). The conflict of this result is that the funded paper has a general adult focus and therefore not supporting new nurses into expanding their skills in relation to child health.

The results for those with children who are interested in postgraduate study provided another negative relationship (r_S = -0.32629, p=0.0096), suggesting that those without children are more interested in postgraduate education than those with dependents. Perhaps therefore, participant nurses with children are less interested in postgraduate education, indicating that having dependent children is a factor which gets in the way of considering further qualifications. Of the nurses who responded to the survey, 12 (19%) had both postgraduate qualifications and children. There is an issue with the items in this section in that the statements cover interest in postgraduate study but also a negatively voiced question in relation to the reason why the nurse might not be interested in study: "I am NOT interested in postgraduate nursing education because advanced qualifications are not acknowledged in my salary". This is a flaw in the design of the tool that may well be reflected in the correlations. If a nurse strongly agreed with this statement that means that nurses without children are not connecting to postgraduate study due to the lack of financial recognition of the qualification. The third statement for this section relates to satisfaction of education level and work. If nurses without children have strongly agreed with this statement this could reflect a lack of interest in advancing their skills and knowledge. Bellfield and Gessner (2010) found that 72% of the nurses who responded to their survey and who had not advanced their education were "mostly satisfied" (p.29) with their current job and level of education. Perhaps this finding also reflects the intrinsic motivation required for postgraduate qualifications suggested by Kinsell, Fry and Zecchin (2018). Other reasons for this response could be, that they may be experiencing

education fatigue, in as much as the nurses may have completed a three-year undergraduate qualification and then some postgraduate papers as a component of their new graduate year in the NEtP programme and therefore would like to take a break from further study. These respondents may feel that there is no urgency to participate in further study if there is no reward or encouragement and support from management particularly in the public sector if they are not included as a priority for funding, a notion supported by Spence (2004b) and others (Bellfield & Gessner, 2010; Cooley, 2008; Ross, Barr & Stevens, 2013; Hallinan & Hegarty, 2016; Ng, Ooi &Siew, 2015). This may also reflect a lack of knowledge relating to what is available for speciality focussed advanced qualifications as echoed by Essa (2011) and Gorczyca (2013) in their findings.

When addressing statistically significant results in relation to identified ethnicity, Māori, Asian and other ethnicities provide p values of <0.05. It can be concluded from the data analysis that Māori place significance on workplace support in relation to leave, flexibility of work hours and an increase in pay. They also feel supported by their manager and employers (r_S = 0.29036, p=0.0221). In New Zealand there is a focus on increasing the proportion of Māori health professionals (Kia ora Hauora, n.d.) and key senior roles have been created to support new Māori nurses in the workforce (Waikato District Health Board, n.d.). The data from this survey might contribute to addressing the retention and encouragement of Māori nurses by supporting them to specialise in their area of interest.

Those identifying as Asian agreed that they do not have the time resource available to complete postgraduate study (r_S = 0.30880, p=0.0146). This statistically significant finding could be a result of many factors including that these nurses could be in a different educational culture. Ni et al., (2014) comment on continuing education in China and concur with the deterrent themes identified in this project. However, Ni et al.'s (2014) work focuses on mandatory in hospital education and does not specifically mention postgraduate qualifications. Further investigation in this area could be beneficial to our nursing workforce with many internationally qualified nurses practicing in New Zealand.

Nurses who indicated that they were of another ethnicity not listed explicitly, suggested that they do have time to commit to further advanced study (r_S = -0.26072, p=0.0407). The ethnicities identified by the nurses who participated in the survey were described as English, European, Indian, Māori and New Zealander. Following from the results found for Māori and Asian ethnicities there is an opportunity here for some investigation into this response, focusing on educational culture and attitudes to continuing education. Literature supports the belief that nursing is a profession which considers ongoing education as a requirement of competence and provision of quality nursing care (Massimi et al., 2017; Ni et al., 2014; Sturgeon, 2010).

Nurses who worked part time indicated that workplace support was not important (r_S = -0.34235, p=0.0065). The reasons nurses work part time can only be speculated upon. It may be that they have dependent children. Of the 62 respondents to the survey, 24 nurses identified that they worked part time and 16 acknowledged that they had dependent children. Several authors support the idea that family duties are a barrier to further advanced study (Cooley, 2008; Essa, 2011; Ross, Barr & Stevens, 2013) and may be compounded by financial commitments (Bellfield & Gessner, 2010; Ng, Ooi & Siew,

2015). The negative relationship of the correlational result could be due to family responsibilities outside of work or that they are not interested in study as discussed above. Equally it may be that the nurse has other work outside of nursing or chose to work part time for another reason. Conversely, if they are interested in further study, this value could be that if the nurses are working part time that they believe they have enough time to commit to study along with work and family; that leave or rostering flexibility is not a key consideration for those who work part time. Or other deterrents are more important to them than workplace support. Furthermore, part time child health nurses who completed this survey have identified that they do not feel supported to consider postgraduate study by their manager or organisation. Do they feel that they are not a priority? Are they seen as not focused on a nursing career because they work part time? These nurses may be experienced child health practitioners who are key to the standard of care delivered, 22 of the 62 nurses who responded work part time and have more than five years' experience. Supporting and encouraging these nurses is crucial to keeping an experienced workforce.

The level of nursing practice provided several significant findings. Nurses' levels of practice begin at RNI and go up RNIV depending on years of experience and demonstrated competence for that level of seniority and renumeration. Other senior nurse roles such as Charge Nurse Manager, Clinical Nurse Educator or Clinical Nurse Specialist (CNS) all have an expectation that the nurse will have completed postgraduate qualifications if not be Mastered. Should one of these senior nursing roles become vacant nurses who wish to apply would require or be expected to complete postgraduate qualifications, not necessarily with a focus on advanced specialty knowledge. RNI nurses are usually new graduate nurses who are a priority for funding in the public health system within the NEtP programme and are enrolled in a prescribed paper. This project shows that workplace support is significant for this group of nurses (r_S = 0.37988, p=0.0276). There are a variety of reasons why this support would be important. These nurses are generally newly qualified and could have significant student loans to repay, therefore they would agree that a pay increase would help motivate them to study further. As recent students they may feel that further study is a natural continuation of their undergraduate situation. These nurses would feel well supported by management and their employer as they are a funding priority and therefore fully financed for the postgraduate paper that they are enrolled in during their NEtP programme and leave is guaranteed for this group of nurses (WDHB, n.d.a). Ng, Ooi & Siew (2015) acknowledge the financial burden on nurses coming into practice from their pre-registration qualification.

Furthermore, RNI nurses responded that they are interested in postgraduate education (r_S =0.25892, p=0.0422). This could be because they are expected to complete further modules of study as a component of the NEtP programme which includes the position they are employed in. They might also be mindful of the generalist nature of their undergraduate qualification particularly now that they work in a specialist area such as child health. Working in an area such as child health with a breadth and depth of further learning available, RNI nurses might be more interested in learning child health specific skills to support quality nursing care. This response might also indicate that these newer nurses

appreciate how the benefit further study would contribute to their clinical practice and career. Doyle, Murphy, Begley and King (2008) acknowledge the importance of specialist child health postgraduate education for nurses practicing in this area. Their work is based in Ireland which has a long history of child health specific nursing practice and education, with a combination of qualifications including a bachelor's degree in general and children's nursing or a post-registration higher diploma in children's nursing.

Workplace support was a key factor for RNII nurses who completed the survey (r_S =0.28692, p=0.0238). RNII nurses have been in clinical practice for more than two years and are also a funding priority in the public health system for those who have completed the first module of postgraduate study via the NEtP programme. These nurses who participate in the NEtP programme are expected to complete the second prescribed module which is not speciality specific. Many of the nurses who contributed to the focus group discussion expressed their frustration at the lack of choice of paper in that if they didn't do the prescribed module, they weren't likely to receive funding or support. Managerial support, leave and pay continue to be key motivators for nurses two years on from their new graduate year. Bellfield and Gessner (2010) reported that nurses found pay and workplace support to be key barrier in their study. Kinsella, Fey and Zecchin (2018) found that motivation for newer nurses was related to the individual nurses' beliefs and values. They also report that key to the motivation to further education is related to specialty professional knowledge, improved practice and quality care, thus supporting the focus group concerns regarding a lack of choice of course topic.

Senior nurses who completed the survey offered some significant findings in relation to CNS level of practice and the section on career and practice. The CNS respondents strongly agreed that postgraduate study would benefit their practice and is essential for career advancement (r_S =0.33210, p=0.0084). This reflects their experience in that to be employed in senior nursing roles such as CNS, the nurse must have postgraduate qualifications. These nurses would also understand the benefit of this knowledge and skill in their practice, particularly specialty specific education as supported by Clark, Casey and Morris (2015) and Cotterill-Walker (2012). Nurses who are specialist nurses could also appreciate the limited number of senior nurse positions available and the process of working to build a position or the time and patience required to wait for a role to become vacant.

Nurse who are employed in other roles indicated that they would be supported by their family and friends to complete further advanced qualifications however their family responsibilities prevent them from doing so (r_S =0.28628, p=0.0241). This result might reflect the type of role they have, in that if they have an employer who is flexible, they may be in a role which facilitates both family duties and work responsibilities. Support from their manager could enable this situation to occur. Of the nurses who indicated that they held other roles several were public health nurses, ward managers, nurse leaders or worked in other community healthcare agencies. The idea of having support of family and friends but still feeling that their responsibilities prevent consideration of further study is reflected in the literature, Ng, Ooi and Siew (2015) found similar results in their survey that family support was key

for further advanced study and that those who had family commitments were reluctant to pursue higher education.

Respondents who work in other community agencies indicated from the survey analysis that course design and delivery is a crucial factor for them (r_S =0.27265, p=0.0320). These nurses would work in specialist areas of child health and would have on call components to their roles. This was reflected in the focus group discussion with nurses who worked in community agencies which are not part of the district health board. The work hours and workload reflect the health needs of the population they care for and therefore the nurses work office hours and on call after hours. These nurses would consider course design carefully in their appraisal of potential postgraduate courses as study would need to integrate into the balance of their personal life and professional responsibilities. Ng, Ooi and Siew (2015) support this notion, along with Johnson and Copnell (2002) who found that course design was a significant deterrent to nurses specialising in child health at a postgraduate level.

Summary

The results of this research project have presented some statistically significant and important findings. The discussion offered considers some of the reasoning which may contribute to these. It could be concluded that support in the manner of leave and funding are two of the most important sources of support child health nurses would like, along with flexible course design and financial recognition of qualification achievement. The nurses who participated in the survey recognised the benefits of further study and are interested in considering advanced qualifications therefore it is not a matter of a lack of motivation, but the financial and process barriers are demoralising and insurmountable when contemplating work, study and family life.

Course design is a significant consideration for nurses regardless of whether they have dependent children, where they work or what qualifications they already have. Workplace support is important for nurses with no children, many of the nurses had already completed postgraduate level qualifications with children and those without children are more interested in postgraduate education than those with children. The results show that whether or not a nurse has children is not a key factor when contemplating further study. Senior nurses are aware of the benefits of postgraduate qualifications on career and practice. Early career nurses reported their interest in further advanced study and the importance of workplace support. There are some significant findings in relation to postgraduate deterrents and ethnicity which would be worth considering in relation to educational culture, and workforce development.

Having discussed that the factors which get in the way of Waikato child health nurses undertaking child health specific postgraduate study, the implications for child health nursing in the Waikato will now be addressed.

Chapter six: Conclusion

Specialist child health postgraduate education has been available to nurses for many years. In the Waikato, child health specific postgraduate education has been but is no longer offered due to an apparent declining interest. This chapter will present the concluding thoughts in response to the research question: What gets in the way of Waikato child health nurses undertaking child health specific postgraduate education? Suggested implications of the results and future directions for practice and research will be presented, including a summary of the study, opportunities for growth based on the study findings and acknowledgement of the limitations of this research.

The research design was purposely chosen to enable a depth and breadth of the research phenomena to be assessed. The pragmatic mixed methods approach facilitated an exploration of the experience and situation not only in the urban tertiary healthcare setting but also across the greater Waikato region in all areas of child health nursing. Having an awareness of the nurses who may identify themselves as child health specialists outside of the main regional city was integral to the study design. Making their voice heard was important to the breadth of this research. The sequential mixed methods approach facilitated an efficient process wherein a clear lineal development from the data collection to the findings of each phase was enabled.

The utilisation of a previously used and validated tool would have been the ideal situation to assess the experience for child health nurses in the Waikato. However, none could be found, therefore the creation of a tool was the next best option. The review of questionnaires relating to the topic reinforced the common themes internationally, forming the basis for the customised survey which was used for this research. Use of the focus groups to validate the newly developed survey tool was beneficial in that it provided a reference point for the discussion and a 'jumping off point' for participants to describe the depth of their experience.

Each phase of the study informed the next. The focus groups adjusted the survey tool to reflect the nurses' context and their experience of the factors which deter engagement with postgraduate education. Key ideas such as separating organisational support into employer and manager roles, and adding depth and clarity to statements to ensure that participants understood what was being asked enabled a clear and appropriate tool to be disseminated across the region.

Key factors which contribute to the barriers identified by the focus groups were issues such as the lack of funding for bedside clinicians to access support for advanced education or the lack of prioritised support for specialist courses for registered nurses caring for children and families. Similarly, frustrations within public sector child health nurses were identified such as less support for self-funding nurses compared with those whose employer funded their course fees and leave. This might be the same in other speciality areas and is a potential focus of future research for someone in similar areas of practice.

The wider survey highlighted some interesting and significant factors relating to the thesis question and supported concerns raised by the focus groups.

- Workplace support and funding continues to be of significance in deterring nurses from postgraduate education regardless of the course focus – specialty practice area or general Master's-level education.
- The funding models for further study are demoralising for Waikato child health nurses. Outside of the priority funding situations the nurses in the public sector know that they are highly unlikely to receive any financial support to undertake any postgraduate education. This contributes to the "why bother" attitude which Spence reported in 2004 (Spence, 2004b).
- The lack of recognition or remuneration reflecting the advanced skills which postgraduate educated nurses bring to practice and the positive impact these nurses have on health outcomes, is noticed.
- Course design and choice are important to the motivation for child health nurses to consider postgraduate education. Flexibility of content delivery and transfer of credits is desired by the nurses who participated in this study. In order to encourage and retain experienced nurses it is important to continue to invest in their professional development after the first couple of years of practice. Designing and developing specialist postgraduate education which is flexible and learner-earner focused is essential to this.
- Many nurses would compromise their ideal educational style to balance work, study and homelife, a notion which is reflected in the survey and focus group results.
- The lack of knowledge of child health specific courses is evident in the results. However, is this reflected as a component of the "why bother" phenomenon or a failure of educational marketing? Do child health nurses not investigate specialty qualifications as they know they won't receive support and perceive that it is not a priority for funding or do education providers need to increase their profile and the visibility of the courses they offer.

It would be interesting to repeat the survey in a different funding model setting. Other healthcare providers and district health boards have alternative funding models which facilitate a much easier and supportive pathway to professional development and advanced education.

Child health nurses in the Waikato understand the benefits of postgraduate level education with regard to their practice, patient care and career. The results align with the literature relating to benefits of postgraduate education. However, the limits of career progression are also acknowledged in the findings. There may be an opportunity here to support specialty knowledge acquisition at postgraduate diploma level for nurses who are not intending to progress into management or senior nurse specialist roles.

Of interest in this study is the impact of family and children on findings. Family and children might be expected to have been a significant barrier to postgraduate education and this is borne out in some of the results. However, respondents indicated that family and friends would support them to advance their qualifications and that this was not a deterrent to engagement with postgraduate education. For some groups of nurses, family responsibilities continue to be a key factor in considering further study. This is of interest for nurses who know their family would support them but continue to experience a lack of time and resource to devote to further education due to family duties. This is congruent with significant correlational results relating to interest in postgraduate education and having dependent children. Nurses with children were less interested in further study than those without children, identifying that having family responsibilities is a key consideration for Waikato child health nurses.

This study found that significant correlational values in relation to those identifying as Māori, Asian or other ethnicities and the themes used in the questionnaire. Further research into these findings would be beneficial for workforce development and to ensure that educational deliver is culturally appropriate.

Interest in child health specific postgraduate education was high amongst the survey cohort. Many of the participants indicated that they would be interested in a child health specific course, especially one which might include level of practice advancement and funding. Overall the results suggest that support outside of the workplace, time and motivation do not deter Waikato child health nurses from undertaking child health specific postgraduate education. When prioritising the key issues which could be addressed the nurses surveyed reported that guaranteed leave, flexibility of course, funding support and reflection of qualifications in pay were the most important issues. All these factors contribute to the motivation to consider further study. Nurses who contemplate completing specialist postgraduate education require enthusiasm and value the knowledge and skills they will acquire from their courses over and above the support or recognition they may or may not receive from their place of practice. When faced with financial responsibilities, family demands and work commitments it can be disillusioning to then consider the barriers placed by process and systems which do not appear to value the skills and positive impact on patient care and outcomes this specialist knowledge will bring to the healthcare service.

Recommendations

So, what are the next steps to address what gets in the way of Waikato child health nurses from undertaking child health specific postgraduate education? The research results and discussion offer the following key recommendations:

- Funding and the financial support process. Professional development funding models need to be reviewed with a view to a more equitable model. This may be one which enables each nurse to choose how he or she would like to use their allocation of funding. Spence's findings in 2004

remain salient (Spence, 2004b); in particular, issues which hinder advancement of education and practice add to the demotivation of nurses to consider further study. The "why bother" situation continues fifteen years later.

- A lack of explicit support for specialty focused advanced skills and education is evident in the experiences reported by the nurses in the focus groups. Literature supports the benefit of specialist postgraduate study on patient outcomes (Barnhill, McKillop & Aspinall, 2012; Clark, Casey & Morris; 2015; Cooley, 2008; Cook, Daniels, Sheehan & Langton, 2006; Cotterill-Walker, 2012; Doyle, Murphy, Begley & King, 2008), therefore this needs prioritising by healthcare providers in the Waikato, including the prospect of improved funding for nursing professional development and skill advancement. The most recent government budget prioritises child wellbeing and family violence as a focus for funding (NZNO, 2019) therefore a shift in focus to speciality knowledge is key to facilitate greater impact on the health, wellbeing and healthy development of children.

- It is worthwhile to consider a blending of postgraduate education with advancement of level of practice; or, a PG- PDRP if you will. An alliance between education and practice areas could enable education institution and healthcare providers to work together to facilitate both career advancement and increase in remuneration by progression through level of practice and an increase in specialty knowledge and skill by completing postgraduate qualifications.

Limitations

The purpose of this study was to explore the experience of child health nurses within the Waikato region and the factors they found to negatively impact on engagement with further advanced study. This research is limited by the small size of the potential cohort of specialty nurses who could participate and the large geographical area in which they practice. Both limit the generalisability of study findings.

There is a potential limitation in the survey tool relating to reliability and validity. The content validity of the tool was confirmed in the focus group phase of the project however construct validity and reliability are limited due to the small cohort and the modification of tools used in previous studies.

The key issues relating to access to further qualifications for nurses are not confined to child health nurses. This project was focused on this area of practice due to the specialist nature of child health nursing. Acknowledging the differences in skill and knowledge required when caring for children and their families goes some way to justify the limited child health focus in undergraduate education. However, the final validated tool could be adapted for a variety of contexts including another area of specialty nursing practice or a different healthcare provider with a different professional development funding model.

This research was completed whilst there was significant industrial action happening. The timing of the survey may have impacted negatively on the number of nurses recruited to participate. Nurses may have been negatively disposed towards their work and profession, which might have been visible in survey responses and completion.

Future research directions

Reflecting the results of the study and the limitations, there are several opportunities for further exploration deriving from this research.

- The developed questionnaire could be used in another area of specialty nursing or another region in New Zealand to assess the concerns relating to deterrents to engaging in postgraduate education.
- This study could contribute to further exploration into factors which effect motivation to further education in nurses or other professionals.
- The findings which reflect the correlations between identified ethnicity and deterrents to further higher education could be investigated further to ensure that education delivery, professional development and therefore experienced staff retention is appropriate to the range of nurses in our workforce.
- Having identified the key concerns for Waikato child health nurses, exploring the possibility of how these barriers could be removed or overcome to support an expertly knowledgeable and skilled child health nursing workforce in this region.

Summary

Children are different from adults in key physiological and developmental ways. They come into care as part of a complex combination of needs and relationships. Nurses who work with children and families require a specific skill set in order to provide the high standard of care required to meet the health, emotional and developmental needs of this population. Meeting these needs occurs in a variety of environments and situations and child health nurses need to be able to adapt their expert knowledge to any of these circumstances. Undertaking specialist postgraduate qualifications is a way of developing these specialist skills and practice. This research project has blended together different research design approaches to assess the factors which detract from the experience of engaging in postgraduate education for Waikato child health nurses.

The study has found that workplace attitude and support is the most significant factor supporting advanced specialist education. The mode of course delivery is also important in encouraging engagement with postgraduate qualifications. The findings signal an opportunity to build from this

research by working with the healthcare providers and educational institutions to mitigate the barriers identified. In this way, the specialty practice of child health nurses in the Waikato will be enhanced. Practising at the top of the RN scope of practice will then ensure that the children of the region receive healthcare that positively impact throughout their lives.

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development in a district hospital of Greece. *Health Science Journal, 4*(3), 193-200.

Appendix A. Ethics approval and District Health Board Research office approval

AUTEC Secretariat

Auckland University of Technology
D-88, WU406 Level 4 WU Building City Campus
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

6 March 2018

Jed Montayre
Faculty of Health and Environmental Sciences

Dear Jed

Re Ethics Application: **18/62 What gets in the way of child health nurses from undertaking child health specific postgraduate study in the Waikato**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved in stages for three years until 5 March 2021.

This approval is for the focus group stage of the research. Full information about future stages of this research (the survey) needs to be provided to and approved by AUTEC before the data collection for this stage commences.

Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/researchethics.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/researchethics.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/researchethics.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries, please contact ethics@aut.ac.nz

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: julia.laing@wintec.ac.nz

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

6 June 2018

Jed Montayre
Faculty of Health and Environmental Sciences

Dear Jed

Re: Ethics Application: **18/62 What gets in the way of child health nurses from undertaking child health specific postgraduate study in the Waikato**

Thank you for your request for approval of amendments to your ethics application.

I have approved minor amendments to your ethics application allowing an amendment to the data collection protocols.

Non-Standard Conditions of Approval

1. Statement in the introduction to the survey that not every question needs to be answered;
2. Revision of the survey design to ensure that all questions, especially the demographic ones, may be left unanswered.

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by AUTEC before commencing your study.

I remind you of the **Standard Conditions of Approval**.

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/researchethics.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/researchethics.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/researchethics.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements.

For any enquiries please contact ethics@aut.ac.nz

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: , julia.laing@wintec.ac.nz

Waikato DHB Approval of Research

RD018031	What gets in the way of child health nurses from undertaking child health specific postgraduate study in the Waikato. (Obstacles to Child Health)

Project Personnel

Principal Investigator:	Julia Laing Wintec Julia.laing@wintec.ac.nz 021 358 537
Waikato DHB named investigators:	
Primary contact name and contact details (email and phone):	Julia Laing
Date Submitted:	09/03/2018
Type of Project:	Observational: qualitative/epidemiological
Multisite?	Multi-centre, Waikato DHB sub-site
Department:	Waikids – Waikato & Thames Hospitals
Service:	Child Health
% of Māori with condition of interest	N/A
What are your plans for recruiting Māori?	Not recruiting patients.
Is ethnicity a variable in your study? (Māori c.f. non-Māori)	No
Will your study involve collecting tissue samples?	No
Will you expect to publish your results?	Yes
Finance/Resource Requirements: (eg staff time, extra clinics, extra procedures, consumables)	Staff time, after shifts.

Project Description (300 words max – background, aim, methods):

Start Date: 09/03/2018

End Date: 30/04/2018

Sample Size: 9-15 in the focus group; 80+ for the survey

The Waikato region has a large population across a large geographical area. As such it serves a large child health population. Undergraduate nursing qualifications have a small amount of child health content, which is appropriate for a general qualification. However similar to working in a cardiac or ICU area, child health nursing has some specialist skills and knowledge requirements. In addition, literature supports that specialty postgraduate education is beneficial to health outcomes.

Therefore, I would like to find out what are the obstacles nurses working in child health face to undertake specialty postgraduate education. To answer this question I would like to use a questionnaire, which can be administered to the variety of child health services across the Waikato region. To facilitate robust research a validated tested tool is needed. There is not a survey available that is contextually appropriate for this topic. Therefore, adaptation of a survey is required. To do this focus groups will be used to assess the appropriateness of the tool and add factors which are unique to the regional situation. Then the focus group results will inform the changes to the validated tool questionnaire thus providing a regionally appropriate tool to assess the child health nursing population. Participants will be nurses who work with children as a usual part of their work. The focus groups will be three to five participants and there will be three focus groups – one for nurses in an urban tertiary hospital, one for community nurses and one for rural hospital nurses. Each focus group will take 30-45 minutes, refreshments will be provided.

Then the customised survey will be available to all nurses in child health areas across the region to answer. The questionnaire should take 10-15 minutes to complete online or hard copy (whichever is convenient for the participant). The survey will also request some information around the types of topics which child health nurses would find useful to their practice. Assessment of the obstacles experienced by child health nurses and the areas of interest will enable adjustment and development of future postgraduate opportunities and positively impact the practice and care of children in the Waikato region.

Management and Resource Sign-offs

This study does not require HDEC review.

Locality Review – *the undersigned agree to the following statements:*

- The study protocol and methodology are ethical and scientifically sound.
- This researcher has identified that this study does not require Health & Disability Ethics Committee (HDEC) review.
- The local lead investigator is suitably qualified, experienced, registered and indemnified.
- Resources, facilities and staff are available to conduct this study, including access to interpreters if requested.
- Cultural consultations have occurred or will be undertaken as appropriate
- Appropriate confidentiality provisions have been planned for.
- Appropriate arrangements are in place to notify other relevant local health or social care staff about the study, and for making available any extra support that might be required by participants, where relevant.
- Conducting this research will have no adverse effect on the provision of publicly funded healthcare.
- There is a stated intent that the results of the study will be disseminated and where practical and appropriate the findings of the study will be translated into evidence based care.

Queries about this research must be made to the Primary Contact person listed.

Dept/Service /Org	Role	Name (print clearly)	Signature	Date signed
Nursing	Chief Nursing & Midwifery Officer	Sue Hayward		13/3/18.
Child Health	Director	Michelle Sutherland		15/3/18
~~Te Puna Oranga~~	~~Kaitakawaenga Māori~~	~~Millie Berryman~~	~~*See attached letter*~~	~~N/A~~

Clinical Support Services Sign-offs

CROSS OUT/ADD SIGN-OFFS APPLICABLE TO THIS PROJECT

SIGNATORIES DECLARATION: We agree that appropriate resources are available in our service to support this project

Clinical Support Service	Name (print clearly)	Signature	Date signed
~~DHB Pharmacy~~	~~Rajan Ragupathy AND~~		
~~DHB Pharmacy~~	~~Marinda van Staden OR Jan Goddard~~		
~~Laboratory~~	~~Kay Stockman~~		
~~Radiology~~	~~Glenn Coltman~~		
~~Medical Records~~	~~Marilyn Hunt~~		

Please return to the Research Office (via Sarah Brodnax, 13 Ohaupo Road) along with required documents as identified in the checklist for final approval.

Office use only:
Quality & Patient Safety, Waikato DHB

Signature: **Date:** 21/3/18

Name: Mo Neville Director Quality & Patient Safety **Position:**

22 December 2017

Julia Laing

Academic Staff Member

Wintec

Dear Julia

Re: Masters Research Project Exploring Paediatric Specific Post Graduate Education

Thank you for meeting regarding your research project that is aimed at exploring Paediatric specific education at Post Grad level within Waikato. It was good to explore how you see the research fitting within the Waikato context of workforce and associated development design. From our view the perspective sits best with exploring the workforce need and the individual needs from a learner centred reality and we wonder if your topic could reflect this as it is broader that exploring the barriers.

As discussed we would be able to facilitate your engagement with our education team and also nurses who may like to participate in your research project once Ethics approval is granted.

Please contact me with any queries.

Cheryl Atherfold
Associate Director of Nursing
Practice and Education

Appendix B. Correspondence from survey tool authors

Re: Research Questionnaire request

Bev Copnell <beverley.copnell@monash.edu>
Fri 4/28/2017 1:36 PM
To: Julia Laing <Julia.Laing@wintec.ac.nz>

Hi Julia, I would love to share the tool with you but unfortunately I no longer have a copy. I worked as the research assistant on that study and all materials would have been retained by Melbourne University. Anne Johnson, as the primary investigator, may have taken a copy with her when she left Melbourne but I've lost touch with her in the last few years. However, I can say with confidence that the items in the 'barriers' and 'benefits' questions were the ones listed in the tables in the papers, with an 'other - please specify' option - the items asterisked were the responses to this option. You are certainly welcome to use those. At this distance I can't remember what other questions we might have asked, that weren't reported in the paper.

As indicated in the paper, this was part of a wider study evaluating the course curricula (the general paediatric course and the paediatric intensive care course) which included focus groups with stakeholders including parent groups, ward nurses and 'management' groups. I do recall that major issues, from the focus groups in particular, were about whether a paediatric qualification is valued and/or necessary. Some of this data stuck in my mind and is there still! Overall, nurses in the general wards said they didn't think it was necessary to have a qualification to work in paeds. They identified observable differences in nurses with a paediatric qualification as 'working better with families' and 'better able to provide care that's age-appropriate' - which I had always been taught were the foundation of paediatric nursing! To my eternal satisfaction, the parents also said these were the things they valued in nurses looking after their children. Nurses in general wards also said they didn't think a paed qualification was valued by the hospital hierarchy, as it was not required for promotion (for instance). PICU nurses, on the other hand, thought their qualification was important and valued.

If you can work some of these issues into your tool I think you'll get some valuable and important data - feel free to reference me as 'personal communication'. I'm very happy to help with any other information, or at least as much as I can remember!

My current study is examining the amount and type of paediatric content in BN curricula around the country, and perhaps more to the point, whether the curriculum is actually implemented (and the influences on this). I've finished data collection but am still analyzing. I'll be presenting preliminary findings at the clinical skills conference in Prato in 3 weeks time (eek!) I'd love to get to Christchurch in October (I have a friend in NZ I'd like to catch up with) but not sure I'll be able to ... Banff for NETNEP next year is beckoning though!

Good luck with your study, do keep in touch.

best wishes,
Bev

Dr Bev Copnell
Senior Lecturer
School of Nursing and Midwifery
Monash University

Postal address:
10 Chancellor's Walk, Clayton Campus

RE: Research Questionnaire request

Siew Wei Fern <weifern_siew@imu.edu.my>
Thu 4/27/2017 12:00 PM
To: Julia Laing <Julia.Laing@wintec.ac.nz>

1 attachments (19 KB)
Final Questionnaires(request).docx;

Hi Julia,

My apology for delay in replying.
Thank you for your email for the request of my team research publication self-reporting questionnaire.
My team and I have no objection for the use of it in your study, however since you are conducting it in your home country you will need to run your reliability and validity test to ensure that the QA is applicable to your study (as stated by you).

Kindly cite and reference our study as follows: these are in APA format
1. Citation: Ng, Ooi and Siew (2015)
2. Reference: Ng, M.F., Ooi, B.Y., & Siew, W.F. (2015). Factors deterring registered nurses from pursuing post graduate nursing degree in a private hospital
in Penang, Malaysia. International e-Journal of Science, Medicine & Education, 9(3): 38-46.

Currently there was also a request for this questionnaire from the Philippines.
I am looking forward to the outcome of your research report, which I do hope you will be able to share with me.

Meanwhile I do not have any updates to share in relation to my study.

Thank you.

Warm regards,
Ms Siew Wei Fern
Lecturer, and IMU Safety & Health Officer
Community Medicine
International Medical University (IMU)
Bukit Jalil, Kuala Lumpur
Malaysia

From: Julia Laing [mailto:Julia.Laing@wintec.ac.nz]
Sent: Thursday, 20 April, 2017 9:11 AM
To: Siew Wei Fern
Subject: Research Questionnaire request

Dear Ms. Siew

I am a nursing lecturer at Waikato Institute of Technology in Hamilton, New Zealand.

I am undertaking my Masters in Nursing and have recently become acquainted with your work from 2015 in relation to barriers and deterrents to registered nurses undertaking postgraduate education.

As part of my research project I would like to use a questionnaire and the data your tool provided is similar to the information I would like to know in the Waikato and New Zealand context. Would you

be open to sharing the questionnaire tool with me? And would you be agreeable if I replicated the tool use with some modifications to include New Zealand cultural aspects?

I would also love to hear about any new information you have discovered about this topic.

Many thanks in advance
Kind regards
Julia

Julia Laing
Part time Academic Staff Member
Centre for Health and Social Practice
Wintec
Private Bag 3036, Waikato Mail Centre, Hamilton 3240
Phone: +64-(0)7-834 8800
Fax: +64-(0)7-07 8580204
Email: Julia.Laing@wintec.ac.nz
Web: http://www.wintec.ac.nz/

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Appendix C. Draft questionnaire reviewed by Focus Groups

Questionnaire on what gets in the way of child health nurses in the Waikato undertaking child health specific postgraduate education?

Hello!! My name is Julia Laing and I am a child health nurse of 20+ years who now teaches nursing at Wintec. Currently I am doing my Masters in Nursing via AUT. I am inviting you to participate in a survey on child health nursing education.

This questionnaire is anonymous and by completing it you are consenting to your answers to be included in my research. It should only take you about 10 minutes to complete. Thank you in advance for agreeing to participate this.

Below is a list of factors that may influence RNs' decisions to enrol in child health specific post graduate nursing education. Please tick the response which corresponds to how you feel about each statement. Please mark only one response.

Influencing factor	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
Workplace support	My superiors and/or workplace encourage and support the pursuit of postgraduate education.					
	An increase in salary for postgraduate qualified nurses will motivate me to further study.					
	Flexible working schedules would motivate me to complete postgraduate study.					
	It is easy for me to obtain leave from work to complete study.					
Delivery of postgraduate courses	Online or distance postgraduate education would allow flexibility in attending courses.					
	Online or distance postgraduate programmes would support me to meet my work commitments.					
	Online or distance postgraduate programmes would allow me to spend more quality time with my family.					
	More flexibility of course choice (i.e. transferring of credits between					

	institutions or being able to choose papers more specific to your practice) would make postgraduate study more attractive.					
	I prefer face to face education delivery.					
	Not all subjects are suited to online delivery.					
Economic considerations	Employer financial support would encourage me to pursue postgraduate education.					
	Fees for postgraduate courses are expensive.					
	Postgraduate study would negatively affect my leave allowances and pay.					
	The process of applying for financial support from my employer for postgraduate education is easy.					
	I would consider taking out a loan to finance postgraduate study.					
	NEtP and/or similar financial support will motivate me in pursuing my study at a postgraduate level and minimise my financial burden.					
Career requirement	A postgraduate nursing qualification would benefit my clinical practice.					
	Postgraduate study is essential for career advancement.					
	A postgraduate nursing qualification would improve my leadership and decision-making skills.					
	There is limited opportunity for career advancement with specialty postgraduate qualifications.					
Social considerations						

	Family and friends would emotionally support me to undertake postgraduate education.					
	My family would financially support me to undertake postgraduate education.					
	Commitments outside of work prevent me from pursuing postgraduate education.					
Time commitments	The time commitment to undertake postgraduate study is a resource I don't have at the moment.					
Personal interest	Postgraduate study is not something I'm interested in at the moment.					
	I am not interested in pursuing postgraduate nursing education because advanced qualifications are not acknowledged in my salary.					
	I am satisfied with my current work and education level.					

How interested would you be in enrolling in Child health specific education?

- Highly likely
- Likely
- Not likely

I would consider enrolling in child health specific postgraduate education if: (please tick as many as is applicable)

- The fees were paid by someone else.
- Study leave was given and guaranteed.
- Courses were flexible and able to be completed in a timeframe that worked with family commitments and working.

What topics would you like to see included in a child health specific course?

_____

_____

Demographics

Age 20-29 30-39 40-59 50+

1. Do you have any dependent children Y/N
2. Which ethnic group/s do you identify as?

   O Pakeha/NZ European, O Maori, O Pacific Peoples, O Asian,

   O Middle Eastern/Latin American/African, O Other Ethnicity
3. How many years since registration? 0-4 5-9 10-14 15+
4. What is your current highest education level in Nursing?

o Diploma in Nursing	o Bachelor degree
o Postgraduate certificate	o Postgraduate diploma
o Master's degree	

5. What are your usual working hours? (tick more than one)

o 8-hour shifts o 12-hour shifts o Office hours

o Full time o Part time o Other _____

6. What is your current position/role?

1. Level 1 RN	2. Level 2 RN
3. Level 3 RN	4. Level 4 RN
5. CNE	6. CNS

o Other _____

7. Which area do you work in?

o DHB Hospital o DHB Community o Other Community agency o Private Hospital

Thank you for taking time in answering the survey.

Appendix D. Focus group participant information sheet and consent form

Participant Information Sheet

Date Information Sheet Produced:

31 January 2018

Project Title

What gets in the way of child health nurses in the Waikato undertaking child health specific postgraduate nursing education?

An Invitation

Hello!! My name is Julia Laing and I am a child health nurse of 20+ years who now teaches nursing at Wintec. Currently I am doing my Masters in Nursing via AUT. My passion is child health nursing education and I'd like to ask you to be a part of my research. This will involve your participation in a relaxed focus group discussion. It will take about 30-45 minutes, (refreshments will be provided) and will be held at your work place at a time that suits you.

What is the purpose of this research?

The current level of child health exposure and education in BN courses is variable. We know that nurses in child health have the opportunity to make a really positive impact on the children and families in our care not only in relation to physical wellbeing but holistically and socially. We also know that further knowledge gives us new skills which improves our practice. So what is it about post graduate study that puts you off giving it a go?

Your experiences will give me an in depth understanding of what prevents child health nurses engaging in further study. Your responses will also provide a unique Waikato context to a wider survey and be used in publications.

How was I identified and why am I being invited to participate in this research?

You have responded to the poster invitation and been asked to participate as you are a nurse working regularly with children in your practice.

How do I agree to participate in this research?

A Consent Form will be provided for you to sign at the beginning of the focus group sessions. Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

The project involves some focus groups to look at and fill in a questionnaire and check that the survey includes all the aspects which apply to us in Waikato, New Zealand. Then the information gained from these groups will be used to customise the survey to use on a wider group of child health nurses.

What are the discomforts and risks?

As a participant you'll be involved in a group discussion so you will be sharing your ideas with colleagues. Part of consenting to being involved is to agree to confidentiality within in the group and we will make some mutually agreed group rules at the beginning of the discussion. There will be limited confidentiality due to focus groups being held in your workplace for your convenience.

What are the benefits?

This research aims to find out what makes it difficult for child health nurses to gain more child health specific knowledge and skill. This is the goal of my masters' qualification – to identify what gets in the way of further study for us in the Waikato. And then once we have a solid idea of the issues to look at how we can change them to support a highly skilled child health nursing workforce.

How will my privacy be protected?

When your ideas are transcribed from the recording of the discussion you will be given a letter instead of a name to protect your privacy. Once the information from the transcriptions has been analysed all the raw data will be securely stored according to AUT policy and your identity will be completely confidential.

What are the costs of participating in this research?

The only cost to you is your time – I envisage the focus groups taking about 30 to 45 minutes.

What opportunity do I have to consider this invitation?

Please take some time to consider this invitation and contact me if you are interested. Then we can arrange a focus group time which suits.

Will I receive feedback on the results of this research?

The results will be reported and if you'd like to receive it then let me know and I'll email you a copy when it's all done.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Jed Montayre, *email* jed.montayre@aut.ac.nz. Phone 09 921 9999 ext 6056

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Julia Laing, email julia.laing@wintec.ac.nz Phone 021358537

Project Supervisor Contact Details:

Jed Montayre, *email* jed.montayre@aut.ac.nz. Phone 09 921 9999 ext 6056

Approved by the Auckland University of Technology Ethics Committee on *6 March 2018*, AUTEC Reference number *18/62*.

Consent Form

Project title: What gets in the way of child health nurses in the Waikato undertaking child health specific postgraduate nursing education?

Project Supervisor: ***Jed Montayre***

Researcher: ***Julia Laing***

- O I have read and understood the information provided about this research project in the Information Sheet dated 31 January 2018.
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- O I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- O I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- O I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- O I agree to take part in this research.
- O I wish to receive a summary of the research findings (please tick one): YesO NoO

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 6 March 2018 AUTEC Reference number 18/62

Note: The Participant should retain a copy of this form.

Appendix E. Final survey tool

Default Question Block

What gets in the way of child health nurses from undertaking child health specific postgraduate study?

Hello!! My name is Julia Laing and I am a child health nurse of 20+ years who now teaches nursing at Wintec. Currently I am doing my Masters in Nursing via AUT. I am inviting you to participate in a survey on child health nursing education.

This questionnaire is anonymous and by completing it you are consenting to your answers to be included in my research. If you would rather not answer a question then you can leave it blank. It should only take you about 10 minutes to complete. Thank you in advance for agreeing to participate this.

Below is a list of factors that may influence RNs' decisions to enrol in child health specific post graduate nursing education. Please tick the response which corresponds to how you feel about each statement. Please mark only one response.

These statements are about workplace support.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
My charge nurse or manager encourage and support the pursuit of postgraduate education.	○	○	○	○	○
My workplace encourage and support the pursuit of postgraduate education.	○	○	○	○	○

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
An increase in salary for postgraduate qualified nurses will motivate me to further study.	○	○	○	○	○
Flexible working schedules would motivate me to complete postgraduate study.	○	○	○	○	○
It is easy for me to obtain leave (education days, paid leave or days off) from work to complete study.	○	○	○	○	○

These statements are about delivery of postgraduate courses

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Online or distance postgraduate programmes would support me to balance my work, study and family life.	○	○	○	○	○
Transferring of credits between institutions or being able to choose papers specific to your practice) would make postgraduate study more attractive.	○	○	○	○	○
I prefer face to face education delivery.	○	○	○	○	○
Not all subjects are suited to online delivery.	○	○	○	○	○
I have a good understanding of the available child health postgraduate programmes.	○	○	○	○	○

These statements are about economic considerations.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Employer financial support would encourage me to pursue postgraduate education.	○	○	○	○	○
Fees for postgraduate courses are expensive.	○	○	○	○	○
Postgraduate study would negatively affect my leave allowances and pay (i.e. use up leave for study or drop FTE to study)	○	○	○	○	○
The process of applying for financial support from my employer for postgraduate education is easy.	○	○	○	○	○
I would consider taking out a loan to finance postgraduate study.	○	○	○	○	○
A course which included financial support, postgraduate education and career advancement would motivate me to study at a postgraduate level and minimize my financial burden.	○	○	○	○	○

These statements are about your career and practice.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
A postgraduate nursing qualification would benefit my clinical practice.	○	○	○	○	○

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Postgraduate study is essential for career advancement.	○	○	○	○	○
A postgraduate nursing qualification would improve my leadership and decision-making skills.	○	○	○	○	○
There is limited opportunity for career advancement (e.g. clinical nurse specialist/Nurse educator/charge nurse) with specialty child health postgraduate qualifications.	○	○	○	○	○

These statements are about social commitments.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Family and friends would emotionally support me to undertake postgraduate education.	○	○	○	○	○
My family would financially support me to undertake postgraduate education.	○	○	○	○	○
Commitments outside of work prevent me from pursuing postgraduate education.	○	○	○	○	○

This statement is about time commitments.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
The time commitment to undertake postgraduate study is a resource I don't have at the moment.	○	○	○	○	○

These questions are about your personal interest in postgraduate education.

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Postgraduate study is something I'm interested in at the moment	○	○	○	○	○
I am NOT interested in pursuing postgraduate nursing education because advanced qualifications are not acknowledged in my salary.	○	○	○	○	○
I am satisfied with my current work and education level.	○	○	○	○	○

How interested would you be in enrolling in Child health specific education?

- ○ Highly Likely
- ○ Likely
- ○ Not Likely

I would consider enrolling in child health specific postgraduate education if: (please tick as many as is applicable)

- ☐ The fees were paid by someone else.
- ☐ Study leave was given and guaranteed.
- ☐ Courses were flexible and able to be completed in a timeframe that worked with family commitments and working.
- ☐ There was financial recognition of qualification achievement
- ☐ There was some other sort of recognition of advanced education by my employer

☐ Other

What topics would you like to see included in a child health specific course?

The rest of the survey gathers demographic data. Again, please feel free to leave any question blank.

Age

- ○ 20-29
- ○ 30-39
- ○ 40-49
- ○ 50+

Do you have any dependent children?

- ○ Yes
- ○ No

Which ethnic group/s do you identify as?

- ○ Pakeha/NZ European
- ○ Maori
- ○ Pacific Peoples
- ○ Asian
- ○ Middle Eastern/Latin American/African
- ○ Other Ethnicity

How many years since registration?

- ○ 0-4
- ○ 5-9
- ○ 10-14
- ○ 15+

What is your current highest education level in Nursing?

- ○ Diploma in Nursing
- ○ Bachelor degree
- ○ Postgraduate certificate
- ○ Postgraduate diploma
- ○ Master's degree

What are your usual working hours? (please tick as many as is applicable)

- ☐ 8-hour shifts
- ☐ 12-hour shifts
- ☐ Office hours
- ☐ Oncall
- ☐ Full time
- ☐ Part time
- ☐ Other

What is your current position/role?

- ○ RN I
- ○ RN II
- ○ RN III
- ○ RN IV
- ○ CNS
- ○ CNE
- ○ Other

Which area do you work in?

- ○ DHB Hospital
- ○ DHB community (e.g. DN/PHN)
- ○ Private Hospital
- ○ Other community agency

Thank you for taking the time to answer this survey.

Powered by Qualtrics

Appendix F. Complete p value correlational results

P value Results

Spearman Correlation Coefficients

Prob > [r] under H0: Rho =0

Number of Observations

	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Age	-0.17231	-0.07133	-0.18568	-0.12706	0.16879	-0.07647	-0.10584
p	0.1805	0.5817	0.1485	0.3250	0.1897	0.5547	0.4129
Years since registration	-0.16832	-0.11178	-0.21748	-0.09261	0.13598	0.09406	-0.20954
p	0.1947	0.3911	0.0922	0.4778	0.2960	0.4709	0.1051
Highest nursing qualification	0.08276	0.29473	0.19874	0.16970	0.11905	-0.17277	-0.04672
p	0.5225	0.0201	0.1215	0.1873	0.3567	0.1793	0.7184

Point Biserial Correlation Coefficients, N = 62

Prob > [r] under H0: Rho =0

	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Dependent children	-0.27751	0.13498	0.08780	0.07096	-0.00887	0.02571	-0.32629
p	0.0290	0.2956	0.4974	0.5837	0.9454	0.8428	0.0096
Ethnicity							

NZ European	-0.09525	-0.03668	0.02718	-0.01099	-0.08093	0.06669	0.05386
p	0.4615	0.7771	0.8339	0.9325	0.5318	0.6065	0.6776
Maori	0.29036	0.19883	0.12744	0.11352	-0.04062	-0.05648	-0.04230
p	0.0221	0.1213	0.3236	0.3797	0.7539	0.6628	0.7441
Asian	-0.14398	-0.13578	-0.07130	0.00403	-0.07527	0.30880	-0.11013
p	0.2642	0.2927	0.5819	0.9752	0.5610	0.0146	0.3942
Other ethnicity	-0.08102	-0.07155	-0.13376	-0.11506	0.22280	-0.26072	0.04663
p	0.5313	0.5805	0.3000	0.3732	0.0818	0.0407	0.7190

Point Biserial Correlation Coefficients, N = 62

Prob > [r] under H0: Rho =0

	Workplace support	Delivery of Postgraduate courses	Economic considerations	Career and practice	Social commitments	Time commitments	Personal interest
Hours of work							
8 hour shifts	-0.14826	-0.14763	-0.05306	-0.07109	0.02911	-0.02728	0.02649
p	0.2502	0.2522	0.6821	0.5830	0.8223	0.8333	0.8381
Office hours	0.0872	-0.06373	-0.06846	0.07848	0.05057	-0.04071	-0.00309
p	0.5001	0.6226	0.5954	0.5443	0.6963	0.7534	0.9810
On call	0.07081	0.21686	0.16174	-0.09790	0.16131	-0.14542	-0.15827
p	0.5845	0.0904	0.2091	0.4490	0.2104	0.2594	0.2192

Full time	0.07015	0.00167	0.02112	0.01326	-0.22702	0.06642	0.17369
p	0.5880	0.9897	0.8706	0.9186	0.760	0.6080	0.1770
Part time	-0.34235	-0.22452	-0.23290	-0.13258	0.03706	0.05553	-0.21266
p	0.0065	0.0794	0.0685	0.3043	0.7749	0.6682	0.0970
Role/position							
RN I	0.27988	0.17004	0.14736	0.03812	-0.17097	0.07201	0.25892
p	0.0276	0.1864	0.2531	0.7687	0.1840	0.5781	0.0422
RN II	0.28692	0.13770	0.10838	0.03608	-0.17567	-0.04803	0.08792
p	0.0238	0.2858	0.4018	0.7807	0.1720	0.7109	0.4968
RN III	-0.14796	-0.06373	-0.11561	0.00830	0.02487	-0.15045	-0.19486
p	0.2511	0.6226	0.3709	0.9489	0.8479	0.2431	0.1291
RN IV	-0.24837	-0.13320	-0.13523	-0.14061	-0.06233	0.03327	0.18536
p	0.0516	0.3020	0.2946	0.2757	0.6304	0.7974	0.1492
CNS	0.00559	0.06011	0.01410	0.33210	-0.0073	-0.12385	-0.02886
p	0.9656	0.6426	0.9134	0.0084	0.9524	0.3375	0.8238
CNE	-0.07785	-0.02046	-0.07130	-0.07927	0.01623	0.01576	-0.11013
p	0.5475	0.8746	0.5819	0.5403	0.9003	0.9033	0.3942
Other role/position	0.06615	-0.02647	0.11558	-0.05666	.28628	0.15614	-0.19157
p	0.6095	0.8382	0.3710	0.6618	0.0241	0.2256	0.1358
Area of work							
DHB Hospital	-0.02273	-0.17036	-0.00061	0.02498	-0.09301	-0.05000	0.06574
p	0.8608	0.1856	0.9962	0.8472	0.4721	0.6995	0.6117
DHB community	-0.11082	0.03343	-0.11561	-0.06188	0.12766	-0.04071	-0.13094
p	0.3912	0.7964	0.3709	0.6328	0.3228	0.7534	0.3104

Private Hospital	-0.14334	-0.13328	-0.14214	-0.14848	-0.06094	0.21048	-0.02006
p	0.2664	0.3017	0.2704	0.2494	0.6380	0.1006	0.8770
Other community agency	0.23392	0.27265	0.20752	0.11352	0.01795	0.00605	0.06697
p	0.0673	0.0320	0.1056	0.3797	0.8899	0.9628	0.6050