Barriers and facilitators to RN-GP communication in aged residential care in the South Island, New Zealand

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Abstract

Registered nurse (RN) and general practitioner (GP) communication in aged residential care (ARC) has not previously been researched in New Zealand and international literature indicates the potential impact this can have on patient safety and RN job satisfaction. The aim of this research was to explore RN perspectives on their communication with GPs involved in the healthcare of older people living in aged residential care in the South Island of New Zealand. A qualitative descriptive design was used to combine non-probability purposive sampling, with data collected through interviews, and thematic analysis guided by a framework provided by Braun and Clarke (2006). Four themes emerged from the data analysis which described barriers and facilitators of communication between RNs and GPs in ARC: Collaboration, RN perceptions and expectations, approaches to communication, and environment. The findings showed similarities to the international literature but also raised important issues related to the wider context of New Zealand health policy, nurse professionalisation, responsibility of health professionals and services as well as interprofessional education.
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Chapter 1- Introduction

He aha te kai ō te rangatira? He kōrero, he kōrero, he kōrero.
What is the food of the leader? It is communication.

1.1 Introduction

This chapter introduces the researcher’s motivation for undertaking this study, the context of aged residential care nursing in New Zealand and the structure of the dissertation. Aged residential care (ARC) is defined and the roles of Registered Nurses (RNs) and General Practitioners (GPs) are explained in this setting. International concepts of aged residential care are compared to the New Zealand system. This chapter concludes with a rationale for the research.

1.2 Personal history and influences

As an RN working in ARC there have been aspects of communication that have been difficult, for many reasons, and part of this research is exploring how nurses experience communication and the strategies they use to communicate. The intent is to identify ways in which to improve communication. Working in a rural setting also comes with the challenge of geographic isolation and the need for agreement on planned care between health professionals working within ARC.

Te Tiriti O Waitangi has great importance and influence in nursing and is a strong reminder of the history of colonisation in Aotearoa New Zealand. This is particularly relevant to ARC nursing as ARC facilities have their own culture that need to be aligned to Māori values in order to provide for Māori kaumatua (elders). As a nurse with Pākehā and Māori whakapapa (genealogy) I have been
mindful to conduct this research in a way that respects tikanga Māori to uphold the mana and mahi of all Māori past and present.

1.3 Aged Residential Care in New Zealand

In New Zealand, aged residential care encompasses 24-hour care provided for older people by health professionals and carers. The level of care is based on individual assessed needs in either rest home, hospital or dementia level of care (Ministry of Health [MOH], 2017). Residents in rest home level care are least dependent, while hospital-level care residents often require supervision at all times (Technical Advisory Services [TAS], 2018). Two options are available for residents who have been diagnosed with dementia based on behavioural symptoms: specialist dementia care and psychogeriatric care which also includes other organic brain diseases (Grant Thornton New Zealand, 2010). Some facilities also offer independent housing in villages attached to rest homes or hospitals for those who can afford it (Grant Thornton New Zealand, 2010). These are not subsidised and are not included in this research. Internationally, facilities tend to be larger than in New Zealand frequently due to differences in population size (Tolson et al., 2013). The most prevalent facility size in New Zealand is 26-50 beds (Grant Thornton New Zealand, 2010). In comparison, in the United States of America (USA), facilities are larger in size and most commonly had 100-199 beds (Centers for Medicare and Medicaid Services, 2013).

Unlike in New Zealand, in the United States of America (USA), older people are encouraged to have insurance to pay for residential care when it is needed, and Medicare and Medicaid exist for those who cannot afford insurance (Rowland & Lyons, 1996). Care of older people living in residential care in the
USA comprises government-owned, not-for-profit and for-profit facilities such as
nursing homes, residential care communities and hospices, which usually have
registered nursing staff, allied health and other caregivers (Centre for Disease
Control and Prevention [CDC], 2013).

In contrast, in the United Kingdom (UK), only two types of aged
residential care are available: care homes with or without nursing care. Care
homes with nursing care are also called nursing homes and cater for residents with
a range of health conditions, disabilities or dementias (National Health Service
[NHS], 2018). As in New Zealand, access to care home admission is means-tested
in the UK, meaning that some residents must pay privately, while others are
funded by the local authority (NHS, 2018). Care homes in the UK can be owned
privately or by councils or charities. Similarly, facilities in New Zealand may be
privately owned, be governed by a local hospital, government agency or charity
including for-profit and non-profit. Most facilities employ one or more registered
nurses and must ensure access to a general practitioner or nurse practitioner for
primary medical assessment at routine intervals and when health changes occur;
this is usually facilitated through arrangements with external health providers
(TAS, 2018). Residents access permanent placement in New Zealand ARC
facilities by either a public funding subsidy or paying privately. To access
subsidised or higher level of care such as hospital or dementia specialist units, a
needs assessment must be completed by a clinical assessor and multi-disciplinary
team (TAS, 2018).

ARC facilities provide 24 hours a day care, every day, by carers and
registered or enrolled nurses depending on the level of care provided and the size
of the facility. Each facility holds one or more contracts with their local district
health board to provide care and the type of contracts held signal the level of care a facility is allowed to provide. These contracts govern the minimum standard of care provided and form the basis of auditing requirements (TAS, 2018). To remain operational, facilities must pass an external audit every twelve months to four years depending on performance at the previous audit (TAS, 2018).

Aged residential care facilities are present in both urban and rural settings in New Zealand, with rural rest homes typically being smaller due to having a smaller catchment area (Grant Thornton New Zealand, 2010). Thirteen percent of ARC facilities were designated ‘non-urban’ in 2010 (Grant Thornton New Zealand, 2010). It is important to distinguish the difference in setting as rural nursing is often isolated, generalist and demands role flexibility and broad competencies (Bourke & Sheridan, 2008). Additionally, health consumers in rural settings often have limited choice regarding health professional and cost and this affects accessibility (Bourke & Sheridan, 2008). This extends to rural ARC facilities as consumers often have little GP choice due to limited availability in their location.

1.4 New Zealand ARC Workforce Overview

The profile of RNs in the ARC sector in New Zealand is changing. In 2016-17, RNs working in ARC made up 10.4% of the entire New Zealand RN workforce and the two largest groups were aged 25-29 years and 30-34 years (Nursing Council New Zealand [NCNZ], 2018). This compares with findings from 2010 where the two largest groups were aged 50-55 and 55-59 years, showing that many younger nurses have entered the ARC sector since 2010 (NCNZ, 2010). Most RNs who work in ‘rest-home/ residential care’ reported
working more than 0.5FTE (NCNZ, 2018), which is contrasted with findings from 2010 where part-time nurses out-numbered full-time nurses in aged care (Grant Thornton New Zealand, 2010). This may indicate increased workload and demand on RNs over this time. The ethnicities of RNs working in ARC varied; New Zealand European was the largest group with 2,015 RNs followed by 1,363 Filipino RNs and 891 Indian RNs, while only 238 RNs in ARC identified as Māori (NCNZ, 2018). It cannot be assumed that non-NZ European RNs gained their qualifications overseas however, of all RNs working across all sectors in New Zealand, 4,018 gained their qualification in the Philippines and 2,370 gained their RN qualification in India (NCNZ, 2018). Although there was no ARC-specific data available on place of qualification, this demonstrates some reliance on internationally-trained RNs to work in ARC. Nursing education and postgraduate education also varied. Twenty eight percent of registered nurses in Carryer et al.’s (2010) study, which looked at the experience of RNs working in aged care in New Zealand, had a bachelor’s degree, none had a Master’s degree and the others had a hospital-level qualification. This compares with NCNZ (2018) data that shows 25.3% of RNs working in continuing care (elderly) in New Zealand have a post-graduate nursing qualification. Additionally, there are a variety of registration qualifications currently held by RNs working across all sectors in New Zealand. RNs who registered in 1970-85 are more likely to have a hospital certificate, RNs registering from 1985-95 are likely to have a diploma of nursing, and more RNs registering from 1995 onwards have a Bachelor of Nursing (NCNZ, 2018).

ARC nurses often work in autonomous leadership roles with support from external health professionals (Dwyer, 2011), however some larger facilities may
have onsite general practitioners during work hours (Whitson, et al., 2008). Most ARC nurses rely on support from GPs; however some nurses experienced a lack of support from GPs due to GP shortage and lack of timely response from GPs (Carryer, Hansen & Blakey, 2010; Dwyer, 2011). Additionally, RNs are accountable for all care staff within the facility but often have no input into the recruitment and performance management of the carers hired, which can be a source of stress (Carryer, et al., 2010). Small, rural facilities may only employ one or two RNs since rest homes that have 30 beds and fewer need only one care staff member at all times and one on-call at rest home level care (TAS, 2017). The only specified nurse presence is in hospital level care, which requires one RN to be on duty at all times, so it is likely that more RNs will work in facilities that include hospital level care (TAS, 2017). The majority of care in ARC is provided by unregulated caregivers under the direction of an RN. In 2008, there were over 18,000 caregivers working in ARC compared to just over 4,000 nurses (Grant Thornton New Zealand, 2010).

1.5 Older people living in residential care in New Zealand

As residents often have high healthcare needs, this contributes to increasing health complexity and acuity within ARC facilities (Carryer et al., 2010). A twenty-year study of New Zealand rest homes showed values for ARC consumers’ dependence in tasks related to self-care, showering, dressing, toileting and eating increased from 1988-2008 (Boyd et al., 2011). The largest age group of residents are over 85 years old and women outnumber men, particularly in the 85 and over year group (InterRAI New Zealand, 2019). The older adult population is expected to increase, with the number of people aged 85 plus expected to double
by 2026 (Grant Thornton New Zealand, 2010). Additionally, the prevalence of
dementia is expected to increase (Grant Thornton New Zealand, 2010), and in
2008, sixty-six per cent of residents had some type of memory impairment (Boyd
et al., 2011). This compares with 2017-18 InterRAI data which shows over 75%
of people aged over 65 living in ARC had symptoms of cognitive impairment
ranging from mild to very severe (InterRAI New Zealand, 2019). More
specifically, 37% of people living in ARC had a diagnosis of dementia other than
Alzheimer’s, and just over 15% of people aged over 65 living in ARC had a
diagnosis of Alzheimer’s disease (InterRAI New Zealand, 2019).

Communication impairment also contributes to the complex nature of
ARC nursing and over 57% of people over 65 living in ARC experienced
communication impairment ranging from mild to very severe (InterRAI New
Zealand, 2019). In 2017-18, 58% of people aged over 65 living in ARC
experienced some degree of health instability based on individual information
about co-morbidities and symptoms of long-term conditions (InterRAI New
Zealand, 2019). Additionally, 25% of people living in ARC also had a diagnosis
of depression contributing to multi-morbidity and health complexity (InterRAI
New Zealand, 2019).

In addition to managing increasing health complexity, ARC nurses are
providing high levels of palliative care. New Zealand data from 2000-2010
showed that people aged 85 years and over are dying in ARC more than in any
other setting; over 53% of deaths for this age group occurred in ARC (Palliative
Care Council of New Zealand, 2014). There has been an increase in deaths in
ARC across all over-65 age groups of almost 5% over the period of 2000-2010,
showing an increase in palliative care provision in ARC. Increasing consumer age
and levels of dependence, cognitive impairment, health instability, impaired resident communication ability and the accountability of RNs for other staff, predominantly unregulated, all contribute to the complexity of ARC nursing today and signal the importance of RN-GP communication in providing high quality healthcare in the ARC setting.

1.6 Structure of dissertation

This dissertation consists of five chapters. In this chapter, introductory information about the structure of ARC provided in New Zealand has been contrasted with international examples and included the personal influences on the researcher. The literature review provides a background of existing literature on the topic of RN-GP communication in ARC and highlights the importance of the research. The methods chapter details the steps in undertaking this research and explores the use of qualitative descriptive design. In the results chapter the findings of the research are examined and the strengths and limitations of this research are discussed in the final chapter which also includes recommendations in regard to research and clinical practice.

1.7 Conclusion

This chapter has provided a background of meaning for the researcher’s interest in this setting. It has introduced the sample population, registered nurses working in ARC, and described the concept of rurality and rural nursing. The structure of this dissertation has been outlined and the setting of aged residential care internationally and in New Zealand has been described.
Chapter Two - Background

2.1 Introduction

This chapter introduces the concept of communication in ARC and details the search strategy and literature review undertaken. Information is included from other settings to supplement the limited findings in ARC on the topic of RN-GP communication. The importance of communication is discussed in relation to literature regarding patient safety and job satisfaction. The core literature review is focused on RN-GP communication in ARC and draws on literature around barriers and facilitators to communication found in other settings such as hospitals.

2.2 Defining communication

The definition of communication, in this context, is information exchanged between health professionals about a person’s care and includes face-to-face, via telephone, written and electronic methods (Australian Commission on Quality and Safety in Health Care (ACQSHC) 2016). Communication is effective when the message is received as intended and health professionals are ‘on the same page’, whereas ineffective communication is when this message is disrupted or fails to be received (Robinson, Gorman, Slimer & Yudkowsky, 2010). ‘Effective’ communication is straightforward and unambiguous and is enhanced by mutual respect and understanding of the other health professional’s role and skills (Robinson et al., 2010). Ineffective communication is said to occur with bullying and intimidation, or cultural and language barriers, and at times with
electronic communication that is not followed-up with verbal communication (Robinson et al., 2010). Similarly, survey findings agree that lack of knowledge about each professional’s roles leads to ineffective communication, although there were high levels of agreement among respondents that hierarchy, attitude, ego, power imbalance, assumptions and lack of professional respect also contributed to ineffective communication (Ponzoni, 2014).

2.2.1 Patient safety

Communication between health professionals and its effect on patient safety has been extensively researched in the surgical setting. An American study showed that hospital doctors often spent the least amount of time communicating with nurses compared to other stakeholders (Rothberg et al., 2011). With increasing patient acuity and less time for communicating, there is also more strain on nurse-doctor interactions (Lindeke & Sieckert, 2005). Of note, during surgery, 43% of adverse patient outcomes were caused by communication breakdown (Gawande, Zinner, Studdert & Brennan, 2003). In an observational study of 90 hours of RN-physician communication during surgery, communication failure was classified into four types: content, occasion, audience and purpose and over thirty-six percent of identified communication failures put the patient at risk due to problems such as team tension, delay, inefficiency or procedural error (Lingard et al., 2004). Similarly, in another USA surgical study, Mazzocco et al. (2009) found limited information sharing between health professionals during surgery and handoff meant patients had a greater risk of complication or death. In a large multi-site American hospital survey about
disruptive behaviour, which was defined as language that was disrespectful or abusive, seventy-seven percent of health professionals surveyed reported witnessing disruptive physician behaviour and sixty-five percent witnessed this behaviour in nurses (Rosenstein & O’Daniel, 2008). Comments from open-ended questions in this same study included concern for nurse-nurse disruptive behaviour, nurses questioning doctor’s orders, nurses being afraid to call doctors and thereby risking patient safety, lack of teamwork, nurses feeling stressed and making errors, and doctors not considering nurses’ opinions (Rosenstein & O’Daniel, 2008).

2.2.2 Job satisfaction

A quantitative study of paediatric hospital nurses looking at nurse job satisfaction in the areas of communication, relationships with doctors and perception of collaboration found these to be increased when doctors communicated with empathy, humour, immediacy and clarity (Wanzer, Wojtasczysk & Kelly, 2009). Manojlovich (2005) found both the work environment and RN-MD communication to be predictors of job satisfaction in hospital nurses. However, in ARC, an American study found no significance between the nurse-doctor relationship and job satisfaction and postulated that this was due to the difference between acute and ARC settings (Choi, Flynn & Aiken, 2012). These findings could be influenced by the difference in frequency and type of RN-doctor interaction found within these settings; hospital RNs have access to onsite doctors 24/7 and therefore may have more frequent encounters with doctors compared to ARC RNs who rely on external GPs. This indicates findings from acute hospital settings may not be generalisable to the aged care context.
2.3 Search strategy

Google Scholar, Ovid (including MEDLINE and PsychINFO), Science Direct, Pubmed, Scopus, Web of Science, and ProQuest databases were utilised in the literature search with the key words ‘interprofessional communication’, ‘information exchange’, ‘collaboration’, ‘nursing home’, ‘rest home’, ‘long-term care facility’, ‘aged residential care’, ‘nurse-GP communication’, ‘nurse-physician’ and ‘barriers and facilitators’ to locate relevant background data. Duplicates and articles not in English were excluded. There was no limit on date of publication due to limited results. Google Scholar yielded 753 results, and ProQuest yielded 347, which resulted in twenty-one pieces of research deemed relevant after ‘patient-nurse communication’ and ‘patient-doctor communication’ were further excluded. From this twenty-one, seven pieces of original qualitative or mixed-methods research were included in the literature review due to their relevance to study design, population and/or ARC setting. Additional information was sourced from the reference lists of the research.

2.4 RN-GP communication in international ARC settings

A review of the literature yielded seven articles on communication specific to the ARC setting providing RN and GP perspectives about communication by way of survey or interview. These studies all took place in international ARC settings such as Germany (Fleischmann et al., 2016; Foth, Block, Stamer & Schmacke, 2015) the USA (Cadogan, Franzi, Osterweil & Hill, 1999; Renz, Boltz, Wagner, Capezuti & Lawrence, 2013; Tjia et al., 2009; Whitson et al.,
2008) and Sweden (Schmidt & Svarstad, 2002). Four articles included a GP perspective, with one study interviewing GPs only (Fleischmann et al., 2016). Foth et al. (2015) sought the perspective of 11 GPs and 14 nurses during interviews about interprofessional communication and co-operation while Cadogan et al. (1999) used a survey to elicit responses from 47 GPs and 59 nurses about potential communication barriers. Renz et al. (2013) included seven GPs in their single-site study examining nurse satisfaction using a communication tool. Two articles used a communication template as an intervention in nurse-GP telephone communication involving medication administration and change of resident health, respectively (Renz et al., 2013; Whitson et al., 2008). A further study was a large survey of thirty-six Swedish nursing homes that involved collecting data on psychotropic drug prescription and nurse perspectives of RN-GP communication (Schmidt & Svarstad, 2002).

Perceptions of communication varied between studies with some positive, and some reporting negative experiences, and expectations were seen to differ between professional roles which contributed to communication issues. In Fleischmann et al.’s (2016) work, GPs were largely positive of working with nurses, viewing them as partners in care, and seeing opportunities to share knowledge to improve nurses’ skills. Similarly, nurses in another study were keen to upskill and this in turn made them feel valued (Renz et al., 2013). In contrast to this, in Cadogan et al.’s (1999) work over a decade earlier both nurse and GP respondents agreed that nurses’ opinions were not valued as scored on Likert-type scales by both groups of professionals. This possibly indicates a change in attitudes over time, or a difference between European and US perspectives. In studies that portrayed both perspectives, there were differing expectations. GPs in
Foth et al.’s (2015) study wished nurses would be more succinct in their communication and demonstrate greater critical thinking. Some of these GPs valued nurses’ expertise from the view that it would reduce their own workload, and wanted to be able to delegate more tasks to nurses whom they perceived as competent. The ideal nurse was identified as well-prepared, on time, competent, and focused on assisting the GP (Fleischmann et al., 2016). This perspective was supported by some GPs who reported annoyance at nurses who needed a lot of reassurance, and did not respect the input of nurses they deemed incompetent (Foth et al., 2015). The GPs in these later studies were more positive of nurses than those reflected in Cadogan et al.’s (1999) earlier work possibly due to a recognition that utilising nurses is a more efficient use of time for resource-limited doctors (Fleischmann et al., 2016), or due to changes in societal and political factors (Foth et al., 2015). The authors reported generalisability of these German studies to be limited as post-graduate nursing education was only a recent development and nurses’ scope is more restricted than in other countries. German nurses considered their professionalisation and advancement of nursing roles to be behind other countries who had implemented advanced nursing roles such as nurse practitioner (Foth et al., 2015). The professionalisation of nursing appears to have an effect on how RNs are perceived by GPs in terms of education and competence and may account for the improvement in perceptions over time. The scope of nursing roles has changed, with both professions developing simultaneously, but still linked to socio-political context and socioeconomic need which influences inter-professional communication.
2.4.1 Facilitators to communication in ARC

The two studies that employed a communication intervention in ARC found more positive GP-RN communication following the intervention. Of the seven GPs in Renz et al.’s (2013) study using Situation, Background, Assessment and Request (SBAR) tool, five found the intervention improved communication from nurses which in turn influenced their decision making about resident health. Of the two GPs who found no improvement, one reported that communication was already adequate. The findings of a study of after-hours calls using an intervention called Communication Health Assessments by Telephone (CHAT) supported positive GP-RN communication (Whitson et al., 2008). Nurses in this study reported high levels of satisfaction with after-hours communication before the intervention, with some improvement post-intervention but with no change in satisfaction related to time efficiency and documentation. Importantly, the CHAT intervention resulted in an increase in the percentage of telephone calls that led to immediate GP assessment of the resident, suggesting that GPs were more responsive. The burden of time taken to complete these tools were mentioned as limitations in both studies (Whitson et al., 2008; Renz et al., 2013). The utility of these tools were useful in structuring information about resident health in a way that GPs understood and responded to. However these tools took RNs time to complete coupled with possible RN unfamiliarity with the tool itself. This may have implications in consistency of communication if RNs are reluctant to use communication tools properly and during each and every communication interaction.
2.4.2 Barriers to communication in ARC

Barriers in communication between health professionals takes many forms. When conflict arose, some GPs were keen to avoid it, choosing to deal only with nurses they got along with or with whom they shared similar goals (Foth et al., 2015); this was congruent with responses from some GPs who reported avoiding nurses when communication was strained or asking to be replaced altogether (Fleischmann et al., 2016). While both professions agreed that conflict was negative, nurses in this study reported tending to give in when faced with conflict and followed GP instructions even if it was against their beliefs (Foth et al., 2015): In Foth et al.’s study, respondents could not identify organisational structures that supported conflict resolution and instead suggested any conflicts were resolved by individual means. This can have implications for patient safety as seen in studies in the surgical setting; conflict, delayed communication and otherwise limited communication led to significant risk of adverse events for the patient (Gawande, et al., 2003; Lingard et al., 2004; Mazzocco et al., 2009; Rosenstein & O’Daniel, 2008).

Other common barriers to effective communication in ARC were receptionists acting as gatekeepers (Foth et al., 2015), or RNs having difficulty contacting the GP (Tjia et al., 2009). Gatekeepers act as the go-between and can limit contact with the intended recipient of communication which creates a bias as information may be withheld or delayed and parts of messages may be missing (Groger, Mayberry & Straker, 1999). Finding time and a quiet place to call were also frequently reported as barriers to communication by nurses (Tjia et al., 2009). On the other hand, some GPs found the shift work of nurses to be a barrier to
communication as they could not find the nurse who had the correct information (Foth et al., 2015). Furthermore, after hours communication may occur between nurses and on-call doctors who may not know the resident and often do not have the relevant information in front of them (Whitson et al., 2008).

GP responsiveness was another perceived barrier for some nurses who reported GPs not returning calls or locum GPs who were unfamiliar with the resident being unwilling or reluctant to be involved (Tjia et al., 2009). Cadogan et al. (1999) reports that GPs were more likely to perceive nurses’ calls as unnecessary which supports many nurses’ perception of feeling hurried by the GP, that they were bothering the GP, or experiencing rudeness from the GP (Tjia et al., 2009). These barriers can be seen as systems issues as they relate to the work conditions of GPs and RNs and others within the chain of communication. Another includes electronic communication as different systems are used between health care providers and are used to differing extents.

2.5 Electronic communication

Electronic medical records (EMR) are the computerised version of paper notes written about a resident by a caregiver while Electronic Health Records (EHR) shows a timeline of health events for a person as they come into contact with various different health services (Deloitte New Zealand, 2015, p.11). Both are forms of electronic communication however EMR and EHR are not yet standardised in New Zealand since a single application would need to be used in and across public hospitals, general practice and residential care (Deloitte New Zealand, 2015, p.22).
Electronic communication may vary between ARC facilities but may involve email, fax, text, or a computer application (Gaskin, Georgiou, Barton & Westbrook, 2012). Electronic communication can be problematic if the patient notes are not read by the intended receiver and some health professionals seek face-to-face communication to access information more quickly or to access information that is unwritten (Bardach, Real & Bardach, 2017). EMR adoption in ARC facilities can make information more accessible and reduce errors however initial cost and staff perceptions can be barriers to implementation (Kruse et al., 2015).

2.6 RN-GP communication in NZ

New Zealand research by Pullon (2008) highlights the need for nurse competence to create respect and trust from doctors in general practice. If a nurse is not perceived as competent, they are less likely to be listened to by GPs. Furthermore, GPs reported ‘good’ communication where they had a trusting relationship with PNs however Pullon (2008) found that a lack of respect for professional competence prevented trust being established. Conversely, In New Zealand hospitals, doctors and nurses reported mutual respect for each others’ roles, and agreed that sharing information aided in decision making, however there were systems-related limitations to communication (Weller, Barrow & Gasquoine, 2011). Doctor and nurse participants relied mostly on opportunistic communication but also had structured communication in the form of ward rounds and multi-disciplinary team meetings. Some junior doctors felt that communication was delayed when nurses were not present at structured meetings and that both professions did not read all the written patient notes (Weller, Barrow
& Gasquoine, 2011). No studies were found that explored RN-GP communication in ARC in New Zealand. These two studies, while having differing findings, have identified potential limitations in communication related to understanding of roles and inconsistencies between time, place, and manner of communication.

2.7 Conclusion

To provide a more complete review of communication, the context was broadened beyond ARC to include surgery and other hospital settings. This is due to a lack of available research in ARC about RN-GP communication, particularly in New Zealand. There is a clear link between communication and patient safety, however there was a lack of research on job satisfaction and RN-GP communication in ARC which warrants further study and clearly identifies the rationale for this research.
Chapter 3- Methods

3.1 Introduction

This chapter provides detail of the research aim and question and an introduction to the qualitative descriptive design applied in this study. The processes of recruitment, sampling, data collection and analysis that were undertaken within this study are described. Ethical considerations, as well as the process of Māori consultation and relevance to Māori in terms of population and nursing are also discussed.

3.2 Research question and aim

The research question was derived using the PICO format which provided a framework for identifying the key components of the research question. The acronym ‘PICO’, a variation of the quantitative ‘PICO’ framework adapted specifically for qualitative research methods, relates to the study population (P), the event or experience of interest (I), and the context (Co) (Davies, 2011).

P= Registered Nurses
I= Barriers and facilitators to communication with doctors
Co= Rural and urban aged residential care facilities in the South Island, New Zealand

The combination of these identified components led to the research question:

What are the barriers and facilitators to communication between RNs and GPs in aged residential care facilities in New Zealand?
Aim

The aim of this research was to explore RN perspectives on their communication with GPs involved in the healthcare of older people living in aged residential care. A focus of the research was to describe current barriers and facilitators to RN-GP communication in both rural and urban ARC facilities.

3.3 Research design

A qualitative descriptive design was used to explore RN perspectives of communication with GPs in the ARC setting. Qualitative descriptive design is a method to describe the collection, interpretation and presentation of data that is not influenced by theory but instead driven by the data (Sandelowski, 2010). This approach is reflected in the sampling method, data collection process and data analysis of this research. The possible combination of different qualitative methods for each stage of the design make this approach unique, however are collectively identified as a distinct, living method which is influenced by the researcher (Sandelowski, 2010). The qualitative descriptive design in this study combines non-probability purposive sampling, data collection through interviews, and thematic analysis of the transcribed data guided by a framework provided by Braun and Clarke (2006).

3.4 Recruitment and Sampling

Non-probability purposive sampling describes the sample that was purposefully selected based on criteria without the intention to be generalised to a larger population (Robinson, 2014). This is acceptable within qualitative descriptive design, as such recruitment is intended to select information-rich cases (Lambert & Lambert, 2012).
Using purposive sampling, facilities were selected from an online Ministry of Health list of ‘rest homes’ represented as a map of the South Island of New Zealand. Recruitment was limited to the South Island due to the small scale of the study and to minimise potential travel time and cost if participants requested face-to-face interviews. Facilities were chosen based on rural and urban locations equally, whilst also attempting to be widespread over the South Island. Initial email invitations with an attached information sheet and consent form (see Appendices B and C) were sent to the identified managers of eight urban and eight rural South Island ARC facilities. The invitation email explained the aim of the study, the process of recruitment, and anticipated total sample size. It also detailed the obligations of the facility manager should their facility wish to participate in the research. A follow-up telephone call to these managers further introduced the study, answered any questions, and determined willingness to participate and identify any in-house research procedures that may be required. In some cases, it was the Clinical Manager themselves who chose to be interviewed. Once potential participants were identified, further telephone calls and emails occurred to confirm an interview date and obtain informed consent.

Purposive sampling allowed the selection of sites thought to be information-rich to tell the story of participants (Sandelowski, 2000). Generalisability is not assured, nor is it the aim, because in non-probability sampling the sample does not have enough in number to be applied to a whole population (Sandelowski, 1995). Non-probability sampling is not comparable to the probability sampling used in quantitative research however findings may indicate a need for further research (Robinson, 2014). Nurses from a range of facility types such as dementia, hospital and rest home level care were invited to
participate in the study to increase anonymity and the likelihood of capturing different perspectives and experiences. The sample was selected based on inclusion and exclusion criteria, geographic location and rurality, and attempts were made to include a variety of South Island cities and regions.

There is no consensus on the definition of ‘rural’ however one New Zealand report suggests towns with fewer than 10,000 people (Howie, 2008, p.6). Population data from the 2013 Census (Statistics New Zealand, 2013) was used to identify towns with fewer than 10,000 people as ‘rural’.

3.4.1 Inclusion and exclusion criteria

Registered nurses working at least 0.5 FTE in ARC in the South Island of New Zealand were included in order to identify those who were most likely to have regular communication with GPs. A total of 4,180 RNs who identified working in ‘rest home/residential care’ worked 0.5 FTE or more, compared to 236 RNs who worked less than 0.5 FTE (NCNZ, 2018). This means there are more potential participants who work 0.5 FTE or more.

RNs known to the researcher were excluded due to potential ethical conflicts as were RNs who were not required to have regular contact with GPs as a part of their job, such as those working after hours or where clinical communication was undertaken by a clinical manager.

3.5 Data collection

Qualitative descriptive design itself does not dictate any one method of data collection (Sandelowski, 2010). Data collection in this study began with
demographic questions which were asked either via email or at the start of the interview. These questions included participants’ job title, ethnicity, gender, how many GPs they work with, how long they had been nursing (in total and in aged care), their qualifications, and to identify their usual methods of communication with GPs. Demographic questions were collected to complement interview data but were not intended to be used as variables or quotas which may affect the authenticity of the interviews (Sandelowski, 1995).

The second part of data collection occurred in the form of semi-structured interview questions. The semi-structured interview style was favoured over unstructured or structured options as it allowed the flow of natural conversation which facilitated exploration of new ideas as they emerged (Doody & Noonan, 2013). The wording and order of questions is more flexible in semi-structured interviews unlike where it is more rigid in structured interviews (Doody & Noonan, 2013).

The following questions were included in the semi-structured interview:

1. In your opinion, what is “good” communication?
2. How would you describe “poor”/difficult communication?
3. How does poor communication impact on the safety/health outcomes/progression of care of your residents?
4. Does your facility have any technology or strategies to assist with RN-GP communication?
5. How does poor/difficult communication impact affect your job satisfaction?
6. In your opinion, what are some barriers in nurse-GP communication?
The semi-structured questions were pilot tested with the academic supervisors with minor adjustments made to include alternative wording and the order of questions. No additional prompts were used to allow further exploration of points raised by the participant as they occurred. All interviews were conducted by telephone which were audio-recorded and transcribed verbatim. Each of the seven transcribed interviews was then anonymised by assigning a number to each participant.

3.6 Data analysis

Qualitative analytic methods are common in nursing research as a means of discovering the rich experiences of participants (Graneheim & Lundman, 2004). The thematic analysis framework proposed by Braun and Clarke (2006) guides a process of inductive data analysis which fits within the qualitative descriptive design (Sandelowski, 2010). Inductive analysis allows for the identification of themes directly from the data without conforming to the researcher’s pre-existing theoretical view-point or set coding frameworks (Braun & Clarke, 2006). This fits well within qualitative descriptive design as the data is not interpreted to fit a theory or explain pre-conceived categories, sub-themes or themes, but are developed from the information gained (Sandelowski, 2010). Braun and Clarke’s (2006) framework for qualitative analysis provided direction on understanding and organising data into themes derived from participants’ experiences. This method was chosen as it was an appropriate fit for the research question and maximised the analysis of information-rich responses.
The thematic analysis framework proposed by Braun and Clarke (2006) has six steps: familiarisation with the data; forming initial codes; looking for themes; reviewing themes; naming themes; and reporting findings. The first step begins with familiarisation, by reading and re-reading of transcripts and notes. Seven audio-recordings were transcribed verbatim as part of the familiarisation phase of thematic analysis. During re-reading of transcripts, the researcher began listing recurring words or topics of interest which later contributed to forming codes. Important statements were highlighted as potential excerpts to be used later.

The detailed steps of this thematic analysis framework ensure attention was given to the interpretation of the data. Data is not merely described, but explored and identified in a way that shows the depth of the interviews (Sandelowski, 2010).

The next three steps involved identifying initial codes which were then collated into themes. Codes were analysed for similarities and grouped into themes and sub-themes. The review process, with constant re-reading throughout the whole data, occurred next to ensure consistency, completeness and the overall direction of interpretation. As the final step, the themes were named and a report of findings produced in the form of the findings and discussion chapters. This was an opportunity for refinement and final analysis of extracts (Braun & Clarke, 2006).

The researcher practiced reflexively throughout each step to ensure her own views were acknowledged and reflected upon. This was important in countering any bias that may have occurred from the researcher’s experiences on
this topic when interpreting the data. An assumption is that the researcher cannot remove their thoughts and feelings from the data, and analysis does not take place in a vacuum (Sandelowski, 2010). Since selected evidence from the data is edited and applied by the researcher to fit a particular argument, the end result does not presume to be free from bias. Instead this is used within a reflective thought process to explore why a bias might occur and if the findings could be presented in a balanced way (Braun & Clarke, 2006).

To enhance credibility, participants were given the option to check their interviews (Polit et al., 2001, p. 389). Interview transcripts were emailed to each respondent who were invited to review and return any comments or amendments within 14 days. This process allowed participants to clarify their meaning and make any changes to responses provided. No participants took this opportunity to review.

3.7 Maori consultation

In New Zealand, the Māori worldview provides a different perspective to that of traditional research paradigms (Pere & Barnes, 2009). Because of the historical research of Māori without respect to their worldview and tikanga (customs), Māori came to distrust the representation research gave them and the motivations of researchers (Pere & Barnes, 2009).

The modern interpretation of the Treaty of Waitangi, New Zealand’s founding document, is that of Māori self-determination and promotion of Māori interests (Hudson & Russell, 2009). If research does not protect or promote Māori interests and rights to self-determination, it can be argued that it is not inclusive of, or relevant to, Māori (Pere & Barnes, 2009). With the aim of including Māori
in this research, Māori consultation was undertaken through the research office of Otago University. Advice was also sought from Irihapeti Bullmore, Kaumatua Clinical Assessor, Older Person’s Health and Rehabilitation on how to best engage Māori nurses. One facility was identified as employing Māori nurses, however the Clinical Manager declined to participate and therefore access to potential Māori participants was denied. Furthermore, there were no Māori nurse participants in this research possibly because only 4.6% of all RNs working in ARC identify as Māori (NCNZ, 2018). This research is relevant to Māori because Māori are living longer and sixty-two percent of Māori elders have a disability, and may be more likely to need residential care (Ministry of Health, 2015). Effective RN-GP communication is important for Māori to protect the health of kaumatua living in ARC and represent the perspectives and values of Māori in the ARC workforce.

The initial connection and maintenance of the participant-researcher relationship is most important therefore manaakitanga (hospitality) and whanaungatanga (relationships) were respected throughout the research. Feedback sought during analysis allowed participants input in clarifying their meaning, and the findings of this research will be disseminated amongst the participants first in the form of an executive summary of findings. The researcher is also willing to present findings to Māori health groups.

3.8 Ethical considerations

This research gained approval from the University of Otago Ethics Committee for Health Research, no.H18/018 (Appendix A) to interview nurses in a health setting.

Informed consent
During recruitment, facility managers were emailed an information sheet (see Appendix B) and consent form (see Appendix C) with details of the study’s purpose. These were forwarded to participants identified by the facility managers. Interviews were scheduled to commence when signed consent forms were returned and informed consent was verbally checked once more at the start of the interview.

Whilst this study employed no intervention and did not endanger participants in any way, the nature of the subject may be upsetting for people for whom the interview process triggers specific experiences. Participants were offered to take breaks, to reschedule, or to withdraw from the interview if they became uncomfortable with the line of questioning or being interviewed. Participants will be advised to contact their Employee Assistance Programme (EAP) if they have one, or their manager, if they have a difficult experience at work. Participants were made aware of the latest withdrawal date before their information was de-identified and included in the findings. Because of the potential for workplace conflict, anonymity was assured by assigning each participant a number and de-identifying information such as names, locations and exact bed numbers in reported findings.

3.9 Conclusion

The rationale and appropriateness for the chosen research design, sampling method, data collection and analysis has been discussed in relation to the study question. The process of Māori consultation and importance of the research to Māori was outlined, as well as ethical considerations that took place prior to recruitment.
Chapter 4- Findings

4.1 Introduction

Braun and Clarke’s (2006) framework for qualitative analysis was used to categorise findings. As a result of the analysis, 27 categories comprised 11 sub-themes from which four overall themes were formed which illustrated aged care nurses’ perceptions of communication: Collaboration, RN Perceptions and Expectations, Approaches to communication, and Environment. The first theme showed aspects related to relationships and collaboration. The second explored nurses’ reasons for communication, perceptions of GPs, and feelings related to communication. In theme three the skills and modes used by nurses to convey information are identified. The final theme examined the environment around aged care nurse communication including rurality and perceptions of primary care. Whilst these four themes are described within individual categories and themes, it is acknowledged that these are difficult to delineate and are interwoven. The number of findings which contribute to each category arise from the number of times RN participants talked about experiences which related to each category, the number of RNs who discussed these findings are included in the descriptions of each category. Only the number of findings are included in the figures for each theme.

This chapter begins with the results of the demographic questions included in the interview and characteristics of the ARC facilities in which RN participants worked such as size, rurality, and level of care. The results of the development of categories into each sub-theme and theme are then presented (see figures 1-4).
4.2 Demographics

All participants were female, and of the seven RN participants, five identified their job title as Clinical Manager. Two nurses identified as New Zealander, three as New Zealand European, one as Filipino and one as European. The nurses’ country of initial training was primarily in New Zealand, with one having trained in England and one in the Philippines. This is a higher proportion of NZE nurses than was portrayed in NCNZ (2018) numbers nationally which showed 38.8% identify as NZE. Conversely, 26.3% of RNs in ARC nationwide identify as Filipino and 8% identify as European (NCNZ, 2018). Five nurses had between 35-50 years nursing work experience each, and the other two had worked in nursing 5-15 years. The length of time spent working in aged care specifically varied with two RNs having worked 30-50 years, three worked 10-15 years and two worked 5-10 years in aged care. The number of GPs with whom RNs worked ranged considerably however most RNs worked with between one to five GPs, one nurse worked with up to 14 GPs, and another worked with six. Only one nurse had a post-graduate (PG) nursing diploma and two had other qualifications not related to nursing.

4.3 Facility characteristics

Five facilities were located in rural areas, and two were located in urban settings. Facility size varied from small to medium: One facility had less than 15 beds, two had 16-30 beds, two facilities had 31-45 beds and the largest two facilities had 50-65 beds each. All facilities provided rest home level care; additionally, one facility provided hospital level care, three facilities provided specialist dementia care and two facilities provided all three levels of care.
4.4 Theme One: Collaboration

RN participants talked about mutual communication and building relationships. This theme included four categories and two sub-themes that were derived from 24 findings (Figure 1). Collaboration is defined as health professionals working together to deliver comprehensive care (McKimm et al., 2010). This can involve mutual discussion or agreement on plan of care between health professionals and is informed by collegiality, teamwork, trust and respect.

![Figure 1. Theme One: Collaboration](image)

4.4.1 Sub-theme One: Mutuality

The sub-theme of mutuality included reciprocal communication with GPs and other staff such as practice nurses and is illustrated in two categories: collegiality and teamwork. A total of twelve findings informed this sub-theme.

4.4.1.1 Collegiality

The category of collegiality was not limited to GPs; three nurses talked about collegiality with GPs and two with PNs. Collegiality was seen as a
facilitator in communication as nurses felt it was a collaborative approach that enhanced teamwork, and informed discussions about mutual responsibility and understanding.

“He had no problem tellin me I was wrong if he thought I was. But always... any disagreement was backed up with a rationale... and as long as it’s good rationale that makes sense, that’s great.” (Rural Nurse 1)

“I think that makes all the difference. They see you as a colleague rather than someone lower than them,” (Urban Nurse 1)

One nurse described the collegiality with practice nurses as a facilitator in communication:

“They know where you're coming from and what you're talking about and... it’s easier” (Rural Nurse 2)

Collegiality is founded in respect for each professional’s role and is an integral part of mutual discussion about planned care and rationale. This nurse has identified how knowing how other roles work and their scope makes communication easier. This can also aid in communication with GPs as PNs understand the message and can advocate on behalf of the ARC RN.

4.4.1.2 Teamwork

Teamwork is the collaborative effort of different roles contributing their individual knowledge and skills to work toward a common purpose. In this category, four RN participants described teamwork in terms of being able to communicate their concerns to the GP and having a discussion or getting a satisfactory response back. Teamwork is required to enable collaboration to occur.
“The good communication is where I go ‘well I’ve noticed such and such, do you think it might be…’ and they will say ‘oh yes, I hadn’t thought about that…’ or they will say ‘no, I don’t think it’s that because…’ and we will discuss things um fully about the reasons... (Rural Nurse 1)

Teamwork was highlighted by RNs and GPs working together to make decisions when faced with the changing health status of people in their care or the changing levels of acuity at the medical centre. It is clear that the common purpose of optimising resident outcomes provided a platform on which collaboration exists.

Teamwork and collaboration were enhanced when RNs felt listened to by GPs. The perception of feeling listened to was seen as a facilitator to communication.

“If you’ve got a good working relationship with the doctor, you feel like your opinions are listened to” (Urban Nurse 1)

“Certain doctors are fantastic and will listen and confer or ask,” (Rural Nurse 3)

RNs were positive that the ability to be heard and have input into planned care for their residents also had a positive impact on resident health.

4.4.2 Sub-theme two: Building relationships

The nature of the relationship determined the type of connection that existed; such as new relationships or relationships built over time. Respect and trust contributed to mutual understanding underpinning professional relationships facilitating collaborative communication between aged care RNs and primary care
GPs and PNs. This sub-theme was exemplified by 12 findings comprising two categories: respect and trust.

4.4.2.1 Respect

In this category, four nurses described communication that highlighted respect from GPs. Respect was necessary in building the relationship between RN and GP which led to enhanced collaboration. The following example shows how a nurse communicated a concern to the GP and received feedback. The nurse respectfully communicated the error as part of her professional responsibility and the GP reciprocated by taking time and thanking the nurse.

“It was quite nice actually, because he did phone up and he thanked me for picking it up and letting him know, because he’d missed it,” (Urban Nurse 1)

“If you meet a new GP, you would have to show that you know what you’re doing,” (Urban Nurse 2)

In contrast, when building a relationship with a new GP, this nurse felt the need to establish her knowledge in order to gain respect from the GP.

4.4.2.2 Trust

The category of trust was linked to building relationships and was a pre-requisite for effective collaboration. Five nurses discussed the category of trust as aiding their working relationships, enabling autonomy to be exercised in their role and enhanced communication with doctors.

“That is quite heart-warming actually, because you know that you’re trusted and that person relies on you to tell the truth and get it right.” (Rural Nurse 3)
“We had one GP who was here 10 years and it was great... we had no issue with communicating with each other because we both trusted each other’s opinion.”

(Rural Nurse 1)

Trust was highlighted as an important component in the reliance of GPs on the RN’s skill and the accuracy of information they provided as it informed the GP’s decisions about resident care. Trust developed over time with the relationship and was important in allowing each professional to fully work to the top of their scope of practice.

Three RNs also discussed the expectation of GPs being able to prescribe treatments without always seeing the resident which relied on trust in the relationship between GP and RN.

“If I give him all the signs and symptoms of a chest infection, I would anticipate that he could chart me antibiotics without having to come see the person,” (Rural Nurse 5)

The nature of the request and the expected response depended on the relationship between the GP and RN. RNs might expect more from GPs they had worked with over a longer time and depended on the trust that GP had in the RN’s assessment skills. However these expectations were also influenced by accountability of roles and responsibility between professions.

4.5 Theme Two: Registered Nurse Perceptions and Expectations

This theme was broad and encompassed RN participants’ perceptions and expectations of GPs, their reasons for communicating, expectations as a result of communication, and the feelings which resulted. Nurses’ perceptions were
important in highlighting the effect of communication on the relationship between GPs and RNs and the value of the nursing role. A total of 45 findings informed six categories which were grouped into three sub-themes (Figure 2): reason for communication, perceived GP role, and negative feelings.

Figure 2. Theme Two: Registered Nurse Perceptions and Expectations

4.5.1 Sub-theme One: Reason for communication

RN participants identified reasons for communication as: advocating for the residents in their care; seeking support for clinical decisions; an expectation that the GP will meet the resident’s needs; and as part of their role responsibility as Registered Nurses. This sub-theme was developed from 12 findings which formed two categories: advocacy, and role responsibility.
4.5.1.1 Advocacy

In this category, six RNs discussed advocacy as a reason for communicating with GPs. Advocacy was understood to be part of the RN’s role and it is also derived from the need to promote the resident’s wishes and needs where there may be disagreement with or unfamiliarity by GPs.

“At all times, the outcome of the resident is the driving force rather than anything else” (Rural Nurse 1)

“I believe I have been described as very strong, and that’s fine because I’m here to advocate for my residents” (Rural Nurse 3)

To achieve a successful outcome as a result of advocacy, nurses found themselves seeking support from GPs so that their decision making promoted resident outcomes.

4.5.1.2 Role responsibility

The category of role responsibility was defined by the RN scope of practice, their ability to make clinical decisions and seek support from other health professionals in making decisions. A total of six findings corroborated communication and seeking support as a responsibility that went with the RN’s role. This was linked to advocacy and a need to communicate risks and protect residents from potential harm.

“It can be quite a challenge... ‘cos you’re very much on your own... and you’ve got to make decisions that have a huge impact on somebody,” (Rural Nurse 2)

“A GP came and charted a drug I wasn’t happy to give... And I, in my personal view of knowing the person well, didn’t think it was appropriate and thought it
was going to increase the risk of falls and other unwanted side effects,” (Rural Nurse 1)

As part of the RN scope of practice, RNs must be confident in their role and their ability to make safe decisions with the information that they have gained. Job satisfaction was linked to the ability to be an advocate and provide safe care. RNs felt satisfied when a resident’s needs were met; however they conveyed a sense of stress when having to make decisions which had a big impact on a resident. A part of the RN’s role responsibility in ARC, and practice within the RN scope, includes appropriately seeking support. Two nurses described contacting GPs to get support around clinical decisions. This was seen as additional to the RN’s assessment and more like a second opinion.

“Usually I have a gut idea of what I want to do or what I think... but it’s nice to get someone else to- to talk things through with,” (Rural Nurse 2)

4.5.2 Sub-theme Two: Perceived GP Role

RN participants described varying opinions of the effect of perceived GP attitude on communication and resident care. Seventeen findings informed two categories in this sub-theme: ARC experience, and attitude and role understanding. Most importantly, ARC RNs identified the need for GPs attending ARC facilities to have specialist gerontology knowledge in addition to generalist GP knowledge.

4.5.2.1 ARC Experience

Eight findings related to GP’s experience in ARC and RN participants identified familiarity with patients in this specialisation as factors influencing
communication: some were positive and some negative. One nurse perceived younger doctors to make more of an effort to research treatment options than an ‘old-fashioned’ GP when treating residents, while two others linked youth to inexperience.

“She’s quite young... and she didn’t know what to chart for a palliative person,” (Urban Nurse 2)

“The younger GPs will make every effort,” (Rural Nurse 4)

Experience also related to GPs being unfamiliar with the facility, the specialist area of care, or the resident themselves and was perceived as a barrier to communication and continuity of care. Unfamiliarity or limited experience was a cause of frustration for some RNs and perceived to have an impact on the care of residents living in ARC.

“You don’t see the same doctor. Sometimes that’s good, sometimes that’s not good... A fresh set of eyes can be good sometimes but I think if you’re constantly dealing with a different person it’s much more difficult,” (Rural Nurse 1)

“...because most of my residents are technically palliative care and some of the GPs don’t go to aged care clients all the time,” (Urban Nurse 2)

Nurses identified the juxtaposed generalist knowledge needed by GPs in primary care and the specialised gerontology knowledge required by those attending ARC facilities.

4.5.2.2 Attitude and Role Understanding

There were mixed responses from nurses who reported the nine findings that inform this category. RNs often compared the GPs they worked with and
decided on the GP’s level of ‘interest’ or ‘commitment’ based on their perceptions while working with them. During house visits, nurses expected GPs to be focussed on the residents’ needs and not discuss their social life.

“I’m not trying to say that he’s not interested... but it’s almost he doesn’t have the same commitment to the place that she does,” (Rural Nurse 2)

“More than him wanting to be totally arrogant, I think it’s really just his nature,”
(Rural Nurse 4)

Nurses thought positively of GPs who ‘made time’ to visit, as if the aged care facility and its residents were a priority. Nurses were reluctant to attach labels to a GP’s attitude, and instead found ways to rationalise this perceived attitude such as their ‘nature’ or a lack of role understanding. When GPs had a positive perception and clear understanding of the RN role in ARC this led to a positive working relationship; however nurses also perceived that GP attitude could impact on role understanding negatively. This created a barrier in communication due to perceptions about a GP’s unwillingness to understand the nurse’s role. This in turn had the potential to impact patient safety.

“A lot of it comes down to attitudes from the GPs towards the nurses, it seems to be if they have the opinion ‘oh you’re just a nurse, what would you know?’ and ‘I’m the doctor, you should listen to me,’” (Urban Nurse 1)

“He’s got old-fashioned ideas... he is the doctor and he’ll make every decision,”
(Rural Nurse 4)

The perceived lack of role understanding also impacted the nurses’ job satisfaction in the form of frustration as it made nurses’ efforts to collaborate and advocate more difficult.
4.5.3 Sub-theme Three: Negative Feelings

Sixteen findings informed the extent to which RN participants reported frustrations with GP communication which underpin two categories; feeling devalued, and perceived impact on residents. Frustration was also felt when communicating with other staff at the medical centres, not only GPs.

4.5.3.1 Feeling Devalued

This category examined the nine findings of nurses’ beliefs about the value placed on their role by others. Feeling devalued had a negative effect on job satisfaction as it questioned the nurses’ skill or prevented nurses from feeling satisfied in the care they gave. Three nurses reported feeling devalued by practice nurses and receptionists which in turn was felt to be a barrier to communication.

“Just your whole value and worth and I mean, I think as nurses we all want to do the best we can for the people we care for, and if we feel like we can’t... we feel dissatisfied because we know we’re not doing the best we can do,” (Rural Nurse 1)

“...and then being asked ‘well have you done this or that?’ You’re thinking... well yes I have... and that’s devaluing,” (Rural Nurse 3)

Feeling devalued was heightened by RNs also feeling unsupported by GPs, characterised by feeling unable to have input in discussions about the care of residents.

“If the GP would just listen, you know, if you felt you could make a suggestion,” (Urban Nurse 1)
A lack of input into discussions about resident care was felt to be a barrier in communication. Nurses expressed frustration at the effect this had on their ability to perform their roles and advocate for the residents in their care.

4.5.3.3 Perceived impact on residents

This category explored the perception of five nurses that communication may impact on residents. Nurses identified a range of negative effects such as delayed care, potential for drug error, or missing out on treatment options which stemmed from barriers in communication.

“Obviously there’s always the risk that they’re not going to get some treatment that they need, you know, there’s always potential for harm …if they don’t get the antibiotics they need or they don’t get the right dose of warfarin,” (Rural Nurse 2)

“You know that does have an impact on our patients here, if people don’t feel that they can ring and be really strong and say ‘look, we need something done’,” (Rural Nurse 3)

Nurses felt dissatisfied or frustrated when care was delayed or an incorrect treatment was offered that did not adequately meet residents’ needs. Nurses felt that a positive GP-RN relationship was more conducive to resident outcomes as a wider range of options were discussed.

4.6 Theme Three: Approaches to Communication

This theme focused on the methods nurses use to communicate with GPs and the communication skills identified by nurses that are perceived as barriers or facilitators to communication. The way information is presented and shared is also
discussed. A total of 38 findings informed eight categories as detailed in three sub-themes: skills, modes and information delivery (Figure 3).

Figure 3. Theme Three: Approaches to Communication.

4.6.1 Sub-theme One: Skills

The skills involved in communicating, as identified by RN participants, included: proactive communication, confidence and listening. Communication aspects extended to include RNs, GPs, PNs and receptionists. Ten findings informed two categories: proactive communication and confidence.

4.6.1.1 Proactive Communication

In this category five nurses talked about the need to be proactive as a communication skill. RNs identified using their initiative to be proactive; however in some cases receptionists and GPs were also perceived as being proactive in their communication. Being proactive in communication was also related to
rurality, after-hours planning needs and professional responsibilities, where RNs needed to ‘handover’ or inform doctors or other nurses of changes in resident health.

“If there’s any of the residents here that I think they need to know about, I give them a handover on Friday and... they’ll keep an eye on them for me,” (Rural Nurse 1)

“We have a really good house GP who is very proactive and approachable” (Rural Nurse 2)

GPs who were perceived as proactive had improved relationships with RNs which reportedly led to enhanced communication.

4.6.1.2 Confidence

Five nurses discussed the need to communicate with confidence to improve communication with doctors. Confident communication was a skill related to role responsibility, advocacy and clinical decision making. There were consequences identified with not being confident such as not being taken seriously, and at times nurses communicating confidently were not well received by the GPs.

“The GPs tend to be a bit snobbish if you don’t show your confidence when it comes to talking to them,” (Urban Nurse 2).

“I am quite strong and direct and think ‘well, I haven’t got time to be faffing around’ and this is what’s happening... maybe people just aren’t used to that.” (Rural Nurse 3)
RNs felt that being confident and direct was necessary to enhance communication and make residents’ needs known. It was also affected by perceived time constraints within the RNs role.

4.6.2 Sub-theme Two: Modes

This sub-theme was important in highlighting current modes and methods used by RNs to communicate with GPs. There was variation in modes utilised between facilities, with some using electronic medication charting, others used frameworks for communication, and most using facsimile (fax) to communicate with GPs. Twelve findings informed three categories in this sub-theme: electronic charting, frameworks and methods.

4.6.2.1 Electronic Charting

Electronic medication (E-med) charting was used by three facilities, all of which tended to be larger sized facilities due to the cost associated with set up and use of e-meds. Smaller facilities mentioned e-med charting not being cost effective based on their number of beds. E-med charting has a messaging function that can be used to communicate between RNs, GPs and pharmacy. These messages show directly on the user’s home screen or ‘dashboard’ to indicate if more medication is needed, if a medication has been stopped, or if there is an error in charting. Three nurses reported the ability to directly communicate with the GP through the software but that this message was not always noticed by the recipient.

“We do have a system that we’re able to communicate with the GP on, but there’s only a few GPs that regularly check that. So the ones that have embraced it, it’s
great, we can just contact them any time and they can respond through the same media. But the ones who aren’t very computer literate or who haven’t embraced the technology, it still remains to faxing and waiting,” (Urban Nurse 1)

“It’s really good when doctors use it, but a lot of doctors don’t use [e-med software] ... so it’s a bit of an issue” (Rural Nurse 5)

Within primary care clinics, not all GPs were trained to use the software, so RNs usually only communicated using this technology with one or two GPs who used it regularly. This was an issue for one RN, especially if that particular GP was not working that day as e-med prescribing and related messages could only be checked or amended by GPs that could log-in to the software.

4.6.2.2 Frameworks

Two nurses articulated using a framework to guide communication with GPs. The preferred framework, the Identify, Situation, Background, Assessment, Recommendation (ISBAR) tool (HQSC, 2016) was requested by the GP in one instance and was a workplace policy in another. One practice linked the use of the ISBAR to enhanced communication about a resident’s presentation and was perceived to increase GP confidence and trust in the RN.

“Only for one practice, they have what they call the ISBAR form,” (Urban Nurse 1)

This tool was not used consistently with other primary care practices for reasons unknown.
4.6.2.3 Method of Communication

In this category, all seven RN participants contributed findings about the methods they used to communicate with GPs. Most nurses used fax as this was considered the most direct way to contact specific GPs; however there was variation in preferred methods of contact. Other nurses preferred phone contact particularly if it was about an urgent concern. Two nurses reported a preference for email but this was not supported by the GPs with whom they worked; however another was able to email GPs directly. One nurse preferred face-to-face as the main form of communication.

“I tend to fax things because I know then it’s gone and it will be on somebody’s desk,” (Rural Nurse 2)

“He just chooses not to have emails. But there’s fax, phone calls…which is a bit silly because emails would be so much easier,” (Rural Nurse 5)

The method of communication was strongly influenced by GP preference but also by availability of technology and distance from the ARC facility to the primary care clinic. RNs felt that fax was often more reliable than leaving a message with the receptionist because the fax was given directly to the intended GP.

4.6.3 Sub-theme Three: Information Delivery

This sub-theme was informed by sixteen findings presented as three categories: being organised; clarity of message; and information sharing. RN participants reported these three factors as contributing to enhanced communication with GPs.
4.6.3.1 Being Organised

In this category four nurses articulated that being organised included managing time more efficiently such as when a GP visits, enhanced communication and helped to build the working relationship with GPs. Being organised showed a consideration for GP’s workload and the time taken to communicate.

“You’ve got to have an efficient system going so that when he comes, he sees who he needs to see and then goes. You’ve got to have people ready. Organised.”  
(Rural Nurse 5)

“I am well used to give doctors the facts. They like us to give them the facts. We as nurses tend to waffle around sometimes.”  
(Rural Nurse 1)

‘Being organised’ included having the right information ready before contacting the GP such as giving the GP a set of vital sign recordings and ‘facts’ about the resident’s presenting concern. RNs knowing what information the GP needed enhanced communication.

4.6.3.2 Clarity of Message

Five nurses discussed the importance of the clarity of the message as having implications for resident safety or potential for delayed response time. Expectations of message clarity were two-way; RNs acknowledged the need to be accurate when giving information but also wanted clear instructions or advice in return.

“We’ve got to be direct, accurate and thorough in what we give him... In return, he should give us direct orders, not confusing orders,”  
(Rural Nurse 5)
“Not deliberately, but the context or tone can be altered...” (Rural Nurse 3)

Message clarity could be affected by GP accent and also the number of people the message was relayed between before reaching its destination. Message clarity was enhanced by type-written communication such as e-med charting or fax.

4.6.3.3 Information Sharing

All seven nurses discussed sharing information with GPs, which was linked to job satisfaction, role responsibility and proactive communication. All RN participants detailed giving information on a regular basis in their faxes to GPs about the health of residents. When information was received by RNs from GPs this enhanced collaboration. Barriers in sharing information were mostly due to perceived GP attitude and, in one case, due to RN miscommunication.

“I, and my staff here, have a huge amount of information that would gladly be shared if they would be prepared to have some insight and understanding into what we’re doing” (Rural Nurse 3)

“Clinical skills is giving them information about all your assessments and observations,” (Urban Nurse 2)

RNs described that providing information to GPs was part of their role, and that this demonstrated their clinical skills and experience. Receiving information in turn added to their skills and experience as RNs could learn about new treatment options or changes to best practice from GPs. RNs felt dissatisfied and frustrated when seeking explanation or rationale from GPs was met with resistance or reluctance.
4.7 Theme Four: Environment

This theme encompassed the wider environment around RN communication; including geographic location and rurality, the people who work at the medical centres and local hospitals, and the ways in which these people are contacted. This theme was informed by 42 findings presented in three sub-themes: rurality, structure of medical centre and medical centre operations (Figure 4).

![Diagram](#)

**Figure 4.** Theme Four: Environment

4.7.1 Sub-theme One: Rurality

This sub-theme was informed by nine findings presented in three categories: after-hours, cost, and access to external resources. The rural location
of five facilities was important in terms of factors related to after-hours support, additional costs and use of external resources. The isolation of rurality was felt by four of the five rural participants and was linked to clinical decision making, seeking support and access to and choice of services.

4.7.1.1 After-hours Access

A total of five findings informed this category which described the after-hours support available to RNs participants. Two rural facilities had access to PRIME (a nurse-led after-hours service) which enhanced support after-hours. Two other rural and one urban participant reported the lack of after-hours support as a barrier to communication and having potential to impact on resident care. Facilitators to after-hours communication were identified as having GP’s cell phone numbers, although these were not always answered, and accessing local hospital support was another option.

“Our main problem, being a rural practice, is that we don’t have a GP afterhours. At all. So our main instance is that we have no communication at those times,” (Rural Nurse 2)

“Being a little country area... you do have to be autonomous really... we have no other choice really,” (Rural Nurse 4)

RNs described autonomy in decision making after-hours that called on experience and clinical skills. There was little choice in after-hours support if no primary care was available; however RNs would call for an ambulance if needed. RNs used their clinical assessment skills and communicated to seek proactive treatment before a weekend to prevent deterioration in resident health particularly when there was no after-hours support. Transporting residents over distances was
sometimes a factor in seeking preventive care; however RNs were more concerned about the impact on residents such as time waiting in emergency departments and being in an unfamiliar setting.

4.7.1.2 Cost

Two rural nurses identified additional costs involved with their rural practices associated with communication. Both nurses reported a financial cost to talk to nurses before accessing GPs, and therefore perceived being charged twice for the one service. In these instances, it was not the choice of the RN, but rather imposed by the primary care service which relates to issues with the primary care provider’s systems. While not directly impacting on communication, the additional cost was seen as a result of rurality and contributed to frustrations with the primary care provider’s systems.

“I have one practice where if I have to ring and speak to the phone nurse... and I need to, you know, have a discussion with the doctor... then that actually costs me quite a large amount of money” (Rural Nurse 4)

“They make us pay [specified sum] for a rural nurse to tell me to give some laxsol. I find that really frustrating. I just think it’s a waste of time and money and resource,” (Rural Nurse 5)

These RNs denied cost being barrier in accessing support; however this systems issue was a source of frustration for RNs which impacted their relationship with their primary care practice.
4.7.1.3 Access to External Resources

Two nurses identified being able to access specialist services such as hospital gerontologists, specialist nurses and palliative care doctors in this category. Communication with external resources was seen as a way to gain support and specialist advice where a GP was perceived to be unhelpful or unsupportive. Access to an external resource was seen as a facilitator in communication with GPs as an external health professional could advocate or support the nurse’s position on her behalf.

“I do have access to the geriatrician…I have been able to email him and say ‘look, I haven’t been able to get anywhere with this GP… do you have any suggestions?’… sometimes he’ll ring or sometimes he’ll email and sometimes he sends his nurse practitioner out,” (Rural Nurse 4).

Seeking support from external resources was perceived to enhance communication and resident outcomes as RNs could access specialist knowledge and have collegial support for proposed changes to the GP.

4.7.2 Sub-theme Two: Structure of Medical Centre

In this sub-theme, the structure of the primary care centre and the people who are involved in one communication episode created a chain of communication. This involved the staff who work at the medical centre and illustrated additional barriers and facilitators to communication. A total of 19 findings informed the three categories included in this sub-theme: regular GP contact; chain of communication; and direct GP contact.
4.7.2.1 Regular GP contact

In this category, four RNs described enhanced communication when GPs attended the facility regularly, usually on designated days of the week. This was further optimised when it was the same GP attending each time.

“She comes twice a week, we get to see our in-house GP quite often,” (Urban Nurse 2)

“We basically only have the one doctor on a regular basis and he comes on a Monday,” (Rural Nurse 5)

Regular GP contact was perceived to improve resident outcomes due to increased familiarity of the resident’s needs and continuity of care.

4.7.2.2 Chain of Communication

A total of 12 findings informed this category which reflected the people involved in communication in primary care such as receptionists and PNs.

Receptionists were the first point of contact at the medical centre for all seven RN participants in this category. Receptionists were often the first step in the chain of communication. Five RNs reported receptionists to be at least no problem or at times facilitators in communicating with GPs. Two RNs perceived receptionists to delay messages or to be a barrier in accessing the GP.

“You have to get past the receptionist, and obviously they don’t like interrupting their practice,” (Rural Nurse 2).

“The receptionist will put us through to the nurse and then we can sort of relay the message to the nurse and she can get in touch with the doctor.” (Urban Nurse 1)
Having to leave a message with a receptionist was a source of frustration as it was not a way to directly access the GP and RNs could not always know if the message reached the GP or when to expect a response. This was a similar concern when practice nurses relayed messages to and from the GP and at times PNs were seen as an unnecessary link in the chain of communication that extended response time and affected message clarity.

“That is very time consuming. It’s not always accurate, the picture I’ve seen, that is spoken to the phone nurse, then passed onto the doctor, who then speaks to the phone nurse, who may not be the same person that I spoke to,” (Rural Nurse 3).

However, four RNs had positive perceptions of practice nurses as facilitators in communicating with GPs.

“At least you can often speak to one of the practice nurses instead, and they will act on it and sort it out,” (Rural Nurse 2)

The chain of communication in primary care caused frustration for ARC RNs due to the time taken to get a response, perceived barriers to direct GP communication, and concern that the GP might not receive the correct message as intended.

4.7.2.4 Direct GP Contact

Four RNs spoke of having direct contact with the GPs, with mostly a positive effect on communication. Having direct contact with GPs relied on trust and relationship as nurses called GPs after-hours or when they were off-duty.

“Some of the GPs we have actually got their home contact and they’re happy for us to call them at home,” (Urban Nurse 1)
“I am committed to call his cell phone, but there’ll be other registered nurses that’ll have to do it through me,” (Rural Nurse 5)

This arrangement was usually initiated by GPs once the relationship was established and was not always available to all RNs within the same facility. RNs highlighted the importance of not abusing this trust and only used this avenue in emergencies.

4.7.3 Sub-theme Three: Medical Centre Operations

A total of fourteen findings contributed to this sub-theme presented in three categories: response time, accessibility and follow-up. This sub-theme addresses the environment of primary care and the service provided by medical centres being not exclusive to the ARC facility but to the wider community. This means that RNs in aged care perceived medical centres to be busy but could not know exactly the acuity of medical centres on any given day and how this would affect their ability to access GP services.

4.7.3.1 Response Time

In this category, six RN participants spoke of their expectation of a same-day response time, and some felt that the busy-ness of the medical centre was a barrier in receiving a timely response. The effect of delayed response time meant urgent communication was missed or there was potential for delay in resident care.

“I can ring in the morning and not hear back from anybody until the afternoon,” (Rural Nurse 3)
“It’s easier for us if we can send an email or a note and you know, the response times are much quicker so we can get onto things quicker,” (Urban Nurse 1)

For three RNs, response time was shortened by the use of written communication such as faxes because a fax would get to a specified GP earlier than a phone message due to the busy environment within the medical centre.

4.7.3.2 Accessibility

The impact of GP workload and busyness of the medical centre was reported by four RN participants as creating a difficulty in accessing unplanned appointments with the GP. The effect of this was escalation to hospital admission without GP input as urgent needs could not be met by the GP clinic. RNs felt frustrated when hospital admissions could have been prevented or were perceived to be unnecessary.

“To sit in a busy E.D. department over something which could have been dealt with by a GP quite easily ... It's quite frustrating in that manner,” (Rural Nurse 2)

“To have a lot of residents in a residential home makes it quite tough for them because their clinics are very busy and they don’t often have the time... to be able to come and visit us here,” (Urban Nurse 1)

Some RNs were conscious of using the GPs time and made efforts to reduce the amount of time GPs needed to spend away from their clinic. For this reason, in-house GP visits were reserved for pre-arranged or designated days, for regular three-monthly reviews, or when a resident was not well enough to travel to the clinic. RNs had reduced expectation of a GP visit due to perceived busyness of the primary care environment.
4.7.3.3 Follow-up

Four RN participants discussed regular follow-up in this category. Follow-up was seen as part of their role and important in ensuring communication was received and an outcome occurred for the resident. This was an additional effort that took time and was perceived to be caused by busy medical centres and GPs. An implication for a lack of follow-up was potential for impact on resident outcomes such as delayed starting of a new medication or missed orders from the GP.

“Sometimes faxing them is not enough, you have to ring them just to make sure it’s going to be sorted on time... they have more clients now so you really have to be there asking for a follow-up,” (Urban Nurse 2)

“It all takes time... of course you have to remember to follow it up to make sure that it’s happened,” (Rural Nurse 2)

“The doctor came and she said ‘Right, well, she needs to go on some [medication],’... and that was fine. I rang just before five and the doctor had gone home- left nothing on her notes... rang the next morning... and she said ‘yeah, but you’re giving her the [medication]?‘ I said ‘Well I would if it was charted, if I knew the amount,’” (Rural Nurse 3)

RNs reported the need to follow-up as a regular occurrence not due to GP negligence but due to the environment of the medical centre and the concern that faxes or messages may be lost or misplaced and take longer to get to the specified GP. This was a source of frustration for some RNs as it used additional resources such as time and energy that could have been spent on resident care.
4.8 Conclusion

Thematic analysis was used to explore barriers and facilitators in communication between RNs and GPs and synthesise data from RN interviews from which four overarching themes emerged. The four themes and related sub-themes and categories have presented the findings and captured the interconnected nature of the data. Throughout this synthesis, data was selected and analysed in regard to how it related to the wider experience of RN communication and concepts within this such as perceived barriers and facilitators, relationships, and collaboration within the environment of aged care facilities and primary care.
Chapter 5- Discussion

5.1 Introduction

The findings of this study are discussed in this chapter and presented as barriers and facilitators and linked to published literature and the New Zealand socio-political and cultural context of aged care. Nursing in New Zealand, the professionalisation of nursing and the responsibilities of both nurses and GPs to provide care in a way that enhances patient safety is paramount. Key facilitators identified were; collegiality, teamwork, advocacy, regular GP contact and proactive communication. Some barriers that were identified in this study included; GP attitude and role understanding, feeling devalued, GP ARC experience, clarity of message, after-hours services and accessibility. There were findings evident in this study that have not been previously found in literature such as; e-med software, use of communication frameworks and RN post-graduate education. This chapter includes discussion as to the strengths and limitations of the study and the impact on credibility, confirmability and transferability, and concludes with identifying the recommendations informed by the findings of this research.

5.1.1 Socio-political context

Aged care in New Zealand is currently influenced by the Healthy Ageing Strategy (Ministry of Health [MOH], 2016), the landmark pay equity settlement for caregivers working in aged care (MOH, 2018), and increasing levels of acuity (Boyd et al., 2008). These three factors contribute to the socio-political scene in which this study took place. It is yet to be seen if the pay equity settlement has
any impact on the aged care workforce, but this may have an impact on workforce demographics and retention in future as it is aimed to attract more workers and create a more stable workforce with remuneration that increases with years worked or education levels attained (MOH, 2017b). The pay equity settlement also introduces incentives for training and reinforces timelines for care workers to commence training, which is intended to create a more experienced and highly trained workforce (MOH, 2017b).

The Healthy Ageing Strategy (HAS) aims to improve communication about older people’s health status through technology and enhance collaboration through more connected services and information sharing (MOH, 2016). Some of the goals of the strategy relate to RN-GP communication in ARC such as prevention to reduce unnecessary hospital admissions, timely response from primary care, improved communication between providers and links to after-hours services (MOH, 2016, p.27). RN participants verbalised already practising preventive care to reduce unnecessary admissions, while improvement in inter-provider communication, response time and after-hours services were desired. Some nurses voiced the need to advocate for clients, particularly in end-of-life care which is a goal of the strategy. The HAS describes “Clear communication is an essential factor to good quality end-of-life care” and that a dying person’s wishes should be “understood and respected by all involved in their care” (MOH, 2016, p.44). Palliative care is a significant part of aged care and the most common cause of urgent hospital admissions (Boyd et al., 2008, p.35). Te Ara Whakapiri is a nationwide guidance document which helps to ensure consistency in care provision for the dying patient particularly that the multi-disciplinary team of health professionals be educated in palliative care (MOH, 2017a). Timely and
clear communication between health professionals is essential to providing quality end of life care, guided by Te Ara Whakapiri, and avoiding inappropriate hospitalisation.

Increasing numbers of high dependency residents in rest homes from 1998-2008 reflects the increased level of acuity for RNs to manage in ARC (Boyd et al., 2008). Conversely, from 1998-2008, the number of high dependency hospital-level clients decreased by 5% to 83% possibly reflecting a higher dependency accepted at rest home level, suggesting residents with higher needs are staying longer in rest home care, or a change in classification of ‘high dependency’ (Boyd et al., 2008, p.31). Nursing as a profession has a key role in responsiveness to the changing demands of an ageing population with associated increased complexity and acuity in ARC settings and quality communication is essential to this.

5.1.2 Nurse Professionalisation

The professionalisation of nursing has been an historical endeavour since nursing became an occupation. Continuing nursing professionalisation today depends upon education, ownership of knowledge, self-regulation, and being accepted as legitimate professionals by the public and the government (Jacobs, 2005). This means the nursing profession needs to have influence over development of legislation concerning nursing as well as influence over public perception. Nurse professionalisation is contingent on continuing education and professional development and maintaining professional standards (Liu, 2011). A key one of which is communication.
One mechanism which is aimed at increasing nurse education in the aged care sector is the Gerontology Acceleration Programme (GAP). This programme prioritises funding to RNs working in ARC and older person’s health who wish to develop a career in gerontology and gain a post-graduate education in this specialty. Evaluation shows nurses who have completed the GAP reported increased confidence and knowledge, feeling better supported in their workplace, taking on leadership roles, and being a resource person to other colleagues including doctors and allied health professionals (Hendry & Prileszky, 2015).

Resources such as online care guides provided by the Residential Aged Care Integration Programme (RACIP) (Waitemata District Health Board, 2016) are available to nurses to improve knowledge about specific conditions and their management. Health Pathways is a similar initiative initially developed in Canterbury but is now specific to each region’s local health system in New Zealand, Australia and the United Kingdom (Health Pathways Community, 2018). Programmes such as these provide a common language and management goals shared amongst health professionals which supports interprofessional collaboration and communication in patient care management across primary care and ARC settings.

5.1.3 Facilitators

Within this study, a number of key facilitators in communication between RNs and GPs in ARC were identified that enhanced collaboration and continuity of care such as; collegiality, teamwork, advocacy, regular GP contact and proactive communication. When RNs experienced collegiality and teamwork in interactions with GPs, RNs were able to communicate more easily with GPs.
Published literature that offered insight into the GP perspective was useful in framing RN participant responses. Most GPs saw nurses as colleagues and valued nurses who were competent (Foth et al., 2015; Fleischmann et al., 2016). Competence was proven by the ability to think critically, be succinct and have the information ready. This was reflected in the findings in regard to how RNs demonstrated their competence; by being organised and presenting the ‘facts’ without wasting time. The ISBAR tool was identified as a tool that could aid in communication by providing a framework to convey the relevant patient assessment information and is supported by findings in the literature (Renz et al., 2013).

Another facilitator for communication was advocacy. The need for RNs to advocate for the residents in their care led to confident communication despite any barriers experienced. Pullon (2008) conducted research in New Zealand which also identified the need for nurses to demonstrate their competence in order to gain respect from GPs in the primary care setting. This was certainly reflected in the experiences of RN participants who reiterated the need to show their clinical skill and be confident when communicating with GPs to build trust and respect. In Foth et al.’s (2015) study, some nurses reported carrying out GP orders even when they perceived them to be incorrect or against their own beliefs. Reassuringly, RN participants in this study did not give medication that they thought was unsafe and instead questioned the GP directly to check if it was an error or contacted other GPs for support.

Regular contact with GPs through in-house clinic days in the ARC facility led to continuity of care for residents and regular communication with GPs. Proactive communication by GPs and RNs enhanced the relationship and
communication to prevent resident health decline. Proactive communication was seen as part of the RN role and as a way to prevent the need for after-hours services should the resident decline in health. RNs were receptive to proactive communication from GPs and this promoted a positive relationship.

5.1.4 Barriers

Barriers to effective RN-GP communication identified by RN participants included; GP attitude and role understanding, feeling devalued, GP ARC experience, clarity of message, after-hours services and accessibility. GPs who lacked understanding of the role of RNs in ARC contributed to a reduced opportunity for collaboration which led to RNs feeling devalued. A lack of knowledge about the ARC RN role by PNs, receptionists and GPs were perceived to be a barrier to communication, a finding which is echoed by Ponzoni (2014). GP ego and attitude were also perceived to be barriers in Ponzoni’s (2014) study which resonated with some RN participants in this study.

RN participants in this study shared frustrations that GPs were either unfamiliar with the resident’s health needs or unfamiliar with gerontology or palliative care as a specialisation. The lack of consistency in medical oversight, GP inexperience in the ARC specialisation, and lacking understanding of the complexity of ARC residents increased the potential for unnecessary hospital admissions and risks impacting on resident health.

Clarity of messages, particularly if messages were passed through a chain of communication, had the potential to affect resident health outcomes. Barriers may also arise when receptionists act as gatekeepers (Foth et al., 2015), or RNs have difficulty contacting the GP (Tjia et al., 2009). RN participants felt that they
were unable to communicate resident needs to the right person as the receptionist or PN did not have enough experience or knowledge about the RN’s role and at times the message was delayed or altered. Whilst use of electronic communication could be seen as a panacea, this also has the potential to be ineffective without direct verbal follow-up (Robinson et al., 2010). This was reflected in the e-med charting issues reported by RN participants, one of whom suggested that doctors might not always see the message on the e-med charting and therefore it could be missed. The use of e-communication adds a layer of complexity to the communication ‘ecosystem’.

After-hours communication and care raised or created issues for most rural nurses in this study, possibly due to the variation in primary care models across New Zealand and the different individual arrangements for after-hours care in each area. In a New Zealand study, Boyd et al. (2008, p.33) found that 45% of facilities had an after-hours arrangement with local GP, 24% had GP cover only until late evening and 18% had no after-hours GP service. Those facilities with limited or no after-hours service had to use other services such as private hospitals, public hospitals and locum GP services which contributed to unnecessary hospital admissions, patient distress and lack of continuity of care.

5.1.5 Health professional responsibilities

Some GPs, particularly after-hours or locum GPs, were reluctant to give advice on residents with whom they were not familiar, and this was perceived to be a barrier to communication (Tjia et al., 2009; Whitson et al., 2008). RN participants also had expectations that a GP could prescribe medication without seeing the patient. The advice given to GPs by the Medical Council of New
Zealand (MCNZ) (2016) is that medication can be prescribed on the information provided by a colleague as long as the GP is satisfied with that colleague’s competence and the appropriateness of the medication for that resident. It could be seen as professionally and ethically safer to always assess the patient themselves. The MCNZ also advises that prescriptions should be unambiguous and legible and that GPs should share information between other doctors involved in the same patient’s care such as by recording detailed notes. This recommendation did not extend to information sharing with RNs. Understanding of each health professional’s roles and responsibilities could increase collaboration, communication and enhance patient care.

5.1.6 Information security

Both GPs in primary care and managers of ARC facilities have the responsibility of ensuring the secure transfer and storage of patient information which should be in an encrypted form (MOH, 2015a). This could explain why RNs felt that messaging platforms were dictated by the GP; if RNs were unaware of these requirements and GPs were concerned about privacy and safety of information. Most RNs identified fax as a primary method of communication; however fax and email are not encrypted and there is always a risk information could be sent to the wrong address (MCNZ, 2016a). There needs to be agreement between primary care and ARC providers about what is an acceptable and appropriate platform for sharing information. Patients also need to be informed of who will have access to their information and for what it will be used (Health Information Privacy Code, 1994, rule 3). The MCNZ advises that email use should be agreed upon by patients before use; however this applies more to GP-
patient communication (MCNZ, 2016a). There are some applications being developed in New Zealand and internationally for secure inter-professional health information sharing such as Direct, which ensures email addresses of people sending and receiving health information are authorised first (Kuperman, 2011). A New Zealand messaging system called hMael has also been developed and appears to be encrypted and uses digital signatures and tamper-proof technology (Patients First, 2015). An issue with health information transfer and the use of electronic health records nationwide is the lack of compatible and standardised systems, cost and security concerns (Palliative Care Council of New Zealand, 2010, p.17).

5.1.7 Job satisfaction and patient safety

Differences exist in regard to the impact of communication on job satisfaction and patient safety due to the different methods of data collection between the literature and this study. Job satisfaction and potential for resident harm was conveyed by RN participants but was not able to be measured to allow comparison with the literature. Similar to the findings of Choi, Flynn and Aiken (2012), RN participants did not report significant impact on job satisfaction other than frustration or disappointment. Findings in international literature in other practice settings employed different forms of data collection to give statistics related to patient safety and communication breakdown. This study only reports the perceptions of RNs about the potential impact on resident health or safety. However, some comments from RN participants related to not feeling listened to or feeling unsupported resonated with findings from Rosenstein and O’Daniel
(2008) which found doctors not considering nurses’ opinions were factors affecting patient safety.

5.1.8 Summary

Few of the RN participants in this study utilised a framework to assist in communicating with other health professionals, and only one RN had a post-graduate education in nursing. Despite the professionalisation of nursing and education and funding initiatives such as the Gerontology Acceleration Programme (Hendry & Prileszky, 2015), not many RNs are consolidating their existing experience with post-graduate education. E-medication software is being used by some ARC facilities and has potential to enhance RN-GP communication but is not available to all facilities and is not integrated with other health information technology systems.

RNs in the New Zealand ARC setting are frustrated by the need to follow-up their messages or risk missed or delayed communication which impacts on residents’ health outcomes and wastes valuable time. Limited opportunity for collaboration due to GPs lacking understanding about the ARC RN role caused frustration and the feeling of being devalued for some RNs.

5.2 Strengths and Limitations

A strength of this study is that it is primary research in a topic not previously researched in New Zealand. The findings of this study provide information about facilitators and barriers in RN-GP communication in ARC facilities that responds to an identified gap in research and contributes to literature
about ARC in New Zealand. Another strength is the inclusion of rural facilities which offered a unique perspective on this topic.

There were several limitations that occurred during this study, the first being gatekeeper bias. Other limitations identified were: time during recruitment; an all-female sample; researcher inexperience; and the wording of the interview questions.

Gatekeeper bias may develop if employers do not grant access to RNs for interviewing which in turn affects the information available (Groger, Mayberry & Straker, 1999). In this study, clinical managers acted as gatekeepers where a) a facility was too busy and b) they were not interested in participating. One facility was prospectively selected as they had Māori staff; however the facility chose not to participate which limited access to this group of potential participants. The need to contact a CM first resulted in one facility not participating as they were in the process of hiring a new CM. However, contacting the CM first to gain facility support or approval was necessary as a courtesy and also to gain information on existing in-house research policy or procedures.

The sample consisted of all female RNs which is a limitation in that male RNs in ARC are not included. In the year 2016-17 there were 618 male RNs in residential aged care which represented 13% of the total aged care registered nursing workforce (NCNZ, 2018, p.32). Therefore, it could have been possible to recruit male nurses. One male nurse was invited to participate but declined.

The small sample size is a further limitation. A majority of participants were clinical managers and the leadership component of their role may have influenced their responses and time available as they managed patient care and
other employees who provide care to achieve optimal patient outcomes. The experience of these CM participants can be seen as a strength as they can draw on more years of communication experience. Greater time allocated for this phase would potentially increase participant recruitment. Seven participants were able to be included in this study. Given more time, the sample may have been larger and the small sample limits the transferability of findings (Korstjens & Moser, 2018). Additionally, the small sample size affected potential recruitment of Māori RNs since only 15% of all Māori RNs across all sectors worked in the South Island in 2016-17 (NCNZ, 2018). No Māori RNs were interviewed in this study despite the inclusion of strategy to recruit some RN participants who identified as Māori.

The inexperience of a first-time researcher with limited interviewing experience may affect potential confirmability as more data may have been yielded from interviews conducted by more experienced researchers. However, interviewer skill and confidence improved over the course of data collection and more detailed data were elicited in later interviews. Confirmability was enhanced by a transparent method of analysis which included specific feedback from academic supervisors who oversaw each stage of the research project (Korstjens & Moser, 2018).

The semi-structured interview questions themselves, which appeared to have a negative bias and elicited recollection of at least one negative experience from each RN participant, may have been an additional limitation. However, RN participants also described many positive features of communication with GPs and other staff which contributed to the overall picture of facilitators and barriers in communication between healthcare professionals in this complex care setting.
5.3 Recommendations

Three key areas were identified as barriers to communication between RNs and GPs working in ARC. These were; message clarity, accessibility including after-hours, and understanding of each other’s roles. Message clarity could be enhanced by having agreed use of shared frameworks and patient care guides between ARC facilities and primary care. The use of the same language when communicating would help to reduce ambiguity for health professionals. Shared care guides, tailored to the needs of the ARC population, provide a plan of care for specific health conditions and could help promote realistic expectations and increase understanding of each role in providing care (Waitemata District Health Board, 2016).

GP accessibility for residents of ARC facilities is reduced when there is perceived to be excessive points of contact within the chain of communication from RN to GP. Multiple points of communication increase the risks that the message could be altered in some way or the urgency of the message lost. RNs in ARC desired direct GP contact and improved response time. Discussions between primary care providers and ARC facilities could identify ways to improve communication and response time and create systems that support communication. This could also be a way for GPs to clarify expectations of their role and form agreements in the way communication is managed between primary care and ARC. Quality meetings may also enhance interprofessional collegiality between GPs, PNs and RNs.

Access to after-hours services could be enhanced by further research of after-hours care models nationally, and with the implementation of an after-hours
care policy that promotes the needs of the residents. RN participants’ concerns about resident discomfort and disorientation being transferred to public hospital unnecessarily after-hours is aligned with the HAS in reducing the number of inappropriate hospital admissions (MOH, 2016). Policy needs to be directed at guiding nationwide after-hours care models toward ensuring continuity of care and assessment at the place of the patient’s choice with a particular focus on the needs of the rural sector.

Misunderstanding of the roles identified in this study led to expectations of GPs that they may not be comfortable with providing and RNs feeling devalued and not feeling consulted in collaborative care. Interprofessional education (IPE) seeks to improve understanding of each health professional’s role, ultimately to enhance collaboration, and has been introduced into medical student curriculum (McKimm et al., 2010). In one study of New Zealand and Australian universities, 80% of those surveyed reported offering IPE opportunities to nursing, medical and pharmacy students; however only 24% of these met the recognised definition of IPE (Lapkin, Levett-Jones & Gilligan, 2012). Current IPE programmes exist in pre-registration education for health sciences students in New Zealand which has shown significant success in increasing self-reported attitudes toward interprofessional teamwork, learning, and confidence in long-term condition management (Darlow et al., 2015). IPE in nursing and medical student education may change future interprofessional collaboration in ARC, but as an interim measure, opportunities for IPE could be considered for RNs and GPs in ARC. It is likely that IPE would need to be a local initiative between primary care and ARC facilities; however to increase participation, DHBs could champion an IPE initiative between these groups of health professionals. IPE opportunities between
RNs and GPs in ARC could lead to use of agreed communication frameworks, reduction in potentially unrealistic expectations of GPs and improved collaboration between RNs and GPs.

5.3.1 Implications for further research

Initially, the researcher intended to interview both RNs in ARC and GPs in PHC, but time and budget constraints prevented this. This means that the findings only represent the RN’s perspective with assumptions about GP busyness and motivation. A study which compared RN perspectives with GPs from the same locations would give more balanced information and insight into facilitators and barriers in communication between these groups.

A larger study, which includes different forms of data collection such as surveys, could also yield more data about the facilitators and barriers in communication. A survey would be easier to distribute to a larger sample and allow for analysis of multiple variables. Areas of particular interest to further research would be how adoption of frameworks affect communication and whether communication can be directly linked to resident health outcomes and job satisfaction. Other areas of interest are RN education and confidence in clinical assessment skills, and whether this has any effect on RN-GP communication and resident health outcomes, especially given the recent promotion of funding and post-graduate programmes such as GAP aimed at enhancing nursing skill in ARC. Further research could also include after-hours care provision in primary care and how this might affect RN-GP communication and resident outcomes.
5.4 Conclusion

Although a small study, the findings of this research were supported by findings in the literature in regard to the need for message clarity, lack of role understanding, and nurse confidence. The findings of this study are influenced by the socio-political context of aged care nursing in New Zealand, the professionalisation of nursing in New Zealand and the responsibilities of both nurses and GPs to provide care in a way that enhances patient safety. In response to the research question posed at the beginning of this study, important facilitators in RN-GP communication include; interprofessional trust, regular GP contact and proactive communication. Some important barriers included: the chain of communication within primary care; GP attitude and role understanding; GP ARC experience; clarity of message; after-hours services and accessibility.

This research adds new information about the potential utility of frameworks, after-hours support, and RN education specific to the New Zealand ARC setting to enhance RN-GP communication. Further research is needed to strengthen the findings of this exploratory study, particularly in regard to GP perspective of communication with nurses in ARC, RN education and clinical assessment skills, the use of frameworks and organisation and provision of after-hours services.
References


http://hdl.handle.net/10344/5588


Groger, L., Mayberry, P., & Straker, J. (1999). What we didn’t learn because of who would not talk to us. *Qualitative health research, 9*(6), 829-835.


Kuperman, G.J. (2011). Health-information exchange: why are we doing it, and what are we doing? *Journal of the American Medical Informatics Association, 18*(5), 678-82. Doi: 10.1136/amiajnl-2010-000021


Lapkin, S., Levett-Jones, T., & Gilligan, C. (2012). A cross-sectional survey examining the extent to which interprofessional education is used to teach nursing, pharmacy and medical students in Australian and New Zealand


https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4193634/#


Appendices

Appendix A- Ethics Committee Approval

Dear Dr Trip,

I am again writing to you concerning your proposal entitled “Barriers and facilitators to RN-GP communication in aged residential care in New Zealand”. Ethics Committee reference number H18/018.

Thank you for your email of 20th March 2018 with response and revised Research Ethics (Health) application form attached, addressing the issues raised by the Committee.

On the basis of this response, I am pleased to confirm that the proposal now has full ethical approval to proceed.

The standard conditions of approval for all human research projects reviewed and approved by the Committee are the following:

Conduct the research project strictly in accordance with the research proposal submitted and granted ethics approval, including any amendments required to be made to the proposal by the Human Research Ethics Committee.

Inform the Human Research Ethics Committee immediately of anything which may warrant review of ethics approval of the research project, including serious or unexpected adverse effects on participants; unforeseen events that might affect continued ethical acceptability of the project; and a written report about these matters must be submitted to the Academic Committees Office by no later than the next working day after recognition of an adverse occurrence/event. Please note that in cases of adverse events an incident report should also be made to the Health and Safety Office:

http://www.otago.ac.nz/healthandsafety/index.html

Advise the Committee in writing as soon as practicable if the research project is discontinued.

Make no change to the project as approved in its entirety by the Committee, including any wording in any document approved as part of the project, without prior written approval of the Committee for any change. If you are applying for an amendment to your approved research, please email your request to the Academic Committees Office.
Approval is for up to three years from the date of this letter. If this project has not been completed within three years from the date of this letter, re-approval or an extension of approval must be requested. If the nature, consent, location, procedures or personnel of your approved application change, please advise me in writing.

The Human Ethics Committee (Health) asks for a Final Report to be provided upon completion of the study. The Final Report template can be found on the Human Ethics Web Page [http://www.otago.ac.nz/council/committees/committees/HumanEthicsCommittees.html](http://www.otago.ac.nz/council/committees/committees/HumanEthicsCommittees.html)

Yours sincerely,

Mr Gary Witte
Manager, Academic Committees
Tel 479 8258
Email gary.witte@otago.ac.nz

c.c. Dr P Seaton  Director, Senior Lecturer  Centre for Postgraduate Nursing Studies (Chch)
Appendix B- Participant information sheet

Participant Information Sheet

<table>
<thead>
<tr>
<th>Study title:</th>
<th>Barriers and facilitators in RN-GP communication in aged care in the South Island, New Zealand</th>
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<table>
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<tr>
<th>Principal investigator:</th>
<th>Name: Dr Henrietta Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Centre for Postgraduate Nursing Studies</td>
</tr>
<tr>
<td>Position</td>
<td>Lecturer</td>
</tr>
</tbody>
</table>

| Contact phone number: | (03) 364 3857 Mon-Thurs |

Introduction

Thank you for showing an interest in this project. Please read this information sheet carefully. Take time to consider and, if you wish, talk with relatives or friends, before deciding whether or not to participate.

If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the aim of this research project?

The aim of this research is to explore RN perspectives on their communication with GPs involved in residents’ health care in aged residential care. A focus of the research is to describe current barriers and facilitators to nurse-GP communication in both rural and urban facilities. This is a qualitative study involving a brief demographic questionnaire, and short interviews on the topics of interprofessional communication and communication methods. This project is being undertaken as part of the requirements for Imogen Forgues’ Master of Health Science degree.

Who is funding this project?

This project is part of a degree funded by Health Workforce New Zealand (HWNZ).
Who are we seeking to participate in the project?

Registered Nurses working at least 0.5FTE in South Island aged care facilities (rest-home, hospital and dementia level care), who communicate with general practitioners as part of their job will be sought for recruitment. Ten participants will be recruited via their employers in a purposive sample. If you choose not to participate, your data will not be included in the project.

If you participate, what will you be asked to do?

Should you agree to take part in this project, you will be emailed a questionnaire containing demographic questions about: job title, ethnicity, gender, country of initial RN training, length of time working in aged care specifically, number of GPs with whom you work, List of qualifications and usual methods of communication with GPs.

You will also be asked to participate in a face-to-face or video-conferenced interview using semi-structured questions listed below:

1. In your opinion, what is “good” communication?
2. How would you describe “poor” communication?
3. How does poor communication impact on the safety of your residents?
4. How does poor communication impact affect your job satisfaction?
5. Does your facility have any technology or strategies to assist with RN-GP communication?
6. In your opinion, what are some barriers in nurse-GP communication?

You will be emailed a summary of your interview and invited to participate in a member-checking process. This is voluntary and will allow you to clarify your original responses. You will have 14 days to respond.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself. In the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s). There is no compensation available for your time, therefore interviews aim to be thirty minutes or less and can occur via videoconferencing at a time that suits you.
Is there any risk of discomfort or harm from participation?

The nature of the subject may be upsetting for people for whom the interview process triggers specific experiences. You will be offered to take breaks, to reschedule or to withdraw from the interview. You will be encouraged to contact your Employee Assistance Programme or talk with your manager if you have a difficult experience at work.

What data or information will be collected, and how will they be used?

- Prior to the interview, you will have emailed the researcher your consent form and a completed brief demographic questionnaire. This will involve common demographic questions as well as questions about how long you have been an RN in your facility, how long you have been nursing, and how many GPs work with your facility.
- Interviews will be audio-taped and kept in a secure location while being transcribed. After transcription these will be destroyed and the transcripts kept in secure storage for 10 years.
- The data collected will be used to describe current issues in RN-GP communication in ARC in New Zealand, a topic not previously researched.
- Persons who have access to the data will be restricted to the researcher and her two supervisors.
- In completed qualitative research, direct quotes are used from participant interviews to portray a theme. These will be identified by “Urban Nurse 1” or “Rural Nurse 2” for example, and will be censored of identifying factors such as names of people or locations.
- The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity. On the Consent Form you will be agreeing to take part in this survey.

If you wish, you can be emailed an executive summary of the study upon completion.

What about anonymity and confidentiality?

- At the start of the interview, the researcher will assign you a number to preserve your anonymity. Please do not mention specific names of people, places or buildings where you work during the interview.
- Audio-tapes and transcriptions will be kept securely, and only the student researcher and her two supervisors shall access these. No third party will have access to this information.

If you agree to participate, can you withdraw later?
You may withdraw from participation in the project before August 30th, 2018. After this date, information will be de-identified and may already be included in the study.

**Any questions?**

If you have any questions now or in the future, please feel free to contact either:

<table>
<thead>
<tr>
<th>Dr Henrietta Trip</th>
<th>Contact phone number:</th>
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</thead>
<tbody>
<tr>
<td>Principal investigator</td>
<td>(03) 364 3857</td>
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<tr>
<td>Centre for Postgraduate Nursing Studies</td>
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<table>
<thead>
<tr>
<th>Imogen Forgues</th>
<th>Contact phone number:</th>
</tr>
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<tbody>
<tr>
<td>Student researcher</td>
<td>0277678286</td>
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</tbody>
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*This study has been approved by the University of Otago Human Ethics Committee (Health). If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.*
Appendix C- Consent form for participants

Barriers and facilitators in RN-GP communication in aged care in the South Island, New Zealand

Principal Investigator: Dr Henrietta Trip, henrietta.trip@otago.ac.nz

Consent Form for Participants

Following signature and return to the research team this form will be stored in a secure place for ten years.

Name of participant:.................................................................

1. I have read the Information Sheet concerning this study and understand the aims of this research project.
2. I have had sufficient time to talk with other people of my choice about participating in the study.
3. I confirm that I meet the criteria for participation which are explained in the Information Sheet.
4. All my questions about the project have been answered to my satisfaction, and I understand that I am free to request further information at any stage.
5. I know that my participation in the project is entirely voluntary, and that I am free to withdraw from the project before August 30th, 2018.
6. I know that as a participant I will complete a brief demographic questionnaire and participate in an interview for approximately 30 mins at a time that suits me.
7. I know that the interview will explore the communication between RNs and GPs and that if the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s), and/or may withdraw from the project without disadvantage of any kind.
8. I know that when the project is completed all personal identifying information will be removed from the paper records and electronic files which represent the data from the project, and that these will be placed in secure storage and kept for at least ten years.

9. I understand that the results of the project may be published and be available in the University of Otago Library, but that I agree that any personal identifying information will remain confidential between myself and the researchers during the study, and will not appear in any spoken or written report of the study.

10. I know that there is no remuneration offered for this study, and that no commercial use will be made of the data.

Signature of participant: ____________________________ Date: ____________

Name of person taking consent: ____________________________ Date: ____________