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Why do registered nurses want to leave the organisation and the profession?

Understanding the causes of nursing turnover intentions
to help improve the retention of registered nurses

Willoughby Irene Jacobs Moloney

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Abstract

Background: The combination of an ageing population and a growing prevalence of morbidity is placing increasing pressure on an ageing nursing workforce nearing retirement. Further to this, Registered Nurses (RN) who increased their hours or returned to the profession to supplement their family income during the global financial crisis may decide to reduce their hours or leave the profession as family financial circumstances improve. Solutions that address the anticipated nursing shortage should focus on the motivations of RNs and incentives to retain them.

Aim: The aim of the research is to develop a comprehensive model of nursing turnover intention by examining the effects of job demands, job resources, personal demands and personal resources on burnout and work engagement and subsequently on the intention to leave the organisation and profession.

Methods: This mixed-methods study involved three distinct phases. The semi-structured interviews in the first phase were analysed using a general inductive method of enquiry to develop key themes, which informed the national structured e-survey in the second and third phase. A total of 3,500 e-surveys were distributed via the New Zealand Nurses Organisation and a link to the e-survey was advertised in the Nursing Council of New Zealand's newsletter. Regression analysis explored the research questions and structural equation modelling was used to confirm the research hypotheses.

Participants: The qualitative phase involved interviews with nurse leaders and RNs working in clinical practice (n=22), as well as key stakeholders including Health Workforce New Zealand and Nursing Council of New Zealand (n=2). The quantitative phase involved RNs (n=2876) from across New Zealand.

Results: Over 50 percent of RNs reported intention to leave the organisation (ITLO) and 15 percent reported intention to leave the profession (ITLP). Statistically significant factors affecting both ITLO and ITLP were burnout, engagement, workload, work-life interference and job satisfaction. Furthermore, ITLO was affected by rewards and ITLP was affected by challenge demands, self-efficacy and career orientation.

Conclusion: Results highlight the significance that burnout and work engagement play in RN motivation and strengthen the evidence around initiatives that work to reduce burnout and improve work engagement to encourage RNs to remain in the workforce longer despite their changing circumstances.

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Chapter 1: Introduction

So never lose an opportunity of urging a practical beginning, however small, for it is wonderful how often in such matters the mustard-seed germinates and roots itself.

Florence Nightingale (1914)

1.1 Introduction

The combination of an ageing population, increasing prevalence of morbidity and an ageing nursing workforce are predicted to result in catastrophic nursing shortages. Finding solutions to counteract such predictions will involve finding ways to bolster the workforce and retain those RNs already working. This chapter introduces the context in which this study takes place, discusses the purpose of the study and outlines the key definitions used.

1.2 Context of the study

Across the developed world, increases in life expectancy, advances in medical technology, declining fertility rates and the ‘baby-boomer’ cohorts reaching 65 years plus (Bascand, 2007; Joumard, Andre, & Nicq, 2010) all contribute to a significant increase in the numbers and proportions of older people (65+). New Zealand is no exception and the number of New Zealanders aged 65-plus is projected to climb from 650,000 in 2014 to over one million in the late 2020s (Statistics New Zealand, 2014). Such a demographic shift has far-reaching implications across society such as changes in employment patterns and changes to the essence of community. The impact on healthcare provision is perhaps more problematic. Increasing age is directly related to the incidence and prevalence of long-term conditions such as heart disease, diabetes, respiratory disease, cerebral vascular disease and depression (National Health Committee, 2005b). Such confluent factors have the potential to dramatically increase the demand for healthcare services in the coming years (Ministry of Health, 2014b; National Health Committee, 2005a). Understandably, the World Health Organization

stresses that meeting the healthcare needs of an ageing population is one of the greatest challenges of our time (World Health Organization, 2002a, 2005, 2007).

Meeting the increasing demand for healthcare with sufficiently skilled healthcare professionals is an increasing pressing concern facing countries internationally. Registered nurses (RN) play a critical role in providing healthcare not only in traditional settings such as hospitals and long-term care institutions but also within primary care settings. There are concerns in many countries about shortages of RNs, particularly as the demand for RNs continues to increase while the ageing of the baby-boomer generation precipitates a wave of retirements among RNs (Health Workforce Australia, 2012; International Council of Nurses, 2011; Nursing Council of New Zealand, 2013a). These concerns have prompted actions to increase the training of new RNs, in combination with efforts to increase the retention of RNs currently in the profession.

Since the global financial crisis began in 2007, the number of RNs in paid employment has increased across the world (Buerhaus, Auerbach, & Staiger, 2009; Ministry of Health, 2016a). In the United States, hospital employment of RNs increased by an estimated 243,000 in 2007 and 2008, the largest increase during any two-year period in the past four decades (Buerhaus, 2012). In New Zealand, the number of practising RNs per 1000 population increased from 10.6 in 2009 to 11.5 in 2015 (Ministry of Health, 2016a). Nursing is a predominantly female profession, with female RNs representing 91 percent of the New Zealand nursing workforce in 2015 (Nursing Council of New Zealand, 2015). This means many RNs have considerable family responsibilities, so that during a recession many of those who were not working, or were working part-time, may re-join or change to full-time status because of their partners' reduced incomes or to sustain their household's economic security (Buerhaus et al., 2009). Some RNs may move to holding more than one job, while others may return to nursing if their current occupational positions become tenuous. There is concern that those RNs who re-entered or extended their involvement in the workforce during the economic downturn will leave their jobs or reduce their hours once their family's financial situation improves (Buerhaus et al., 2009; Staiger, Auerbach, & Buerhaus, 2012). Further to this, it is anticipated that the supply of RNs will be hugely reduced due to the ageing workforce nearing retirement (Buchan,

O'May, & Dussault, 2013). This would come while the ageing population is placing increasing demands on healthcare services. Solutions that address the anticipated nursing shortage should include a focus on the motivations of RNs and incentives to recruit and retain them despite their changing circumstances.

The motivations of RNs and the determinants of nursing turnover are complex. Many RNs report feeling insufficiently rewarded for their efforts, an inability to provide the comprehensive care expected and general disillusionment with the profession, whilst also having expectations that conflict with their managers (Buerhaus, 2009; Christmas, 2008; J. Cohen, Stuenkel, & Nguyen, 2009). They often have intense and demanding workloads, resulting in them feeling emotionally and physically exhausted (Huntington et al., 2010). Between 2004 and 2006, New Zealand's RN turnover rate was 44.3 percent, more than double that of Canada and the United States (Jones, 2005; North et al., 2013; O'Brien-Pallas, Murphy, Shamian, Li, & Hayes, 2010). Turnover among RNs has negative economic consequences, including lost productivity, decreased efficiency and lost human capital (Hatch & Dyer, 2004; Jones, 2005). Given the high turnover in New Zealand, it is unlikely that simply training more RNs will help avoid a shortage; therefore policy development needs to address the discontents of current RNs and consider innovative ways to retain them.

1.3 Aims of the research

The aim of the research is to develop a comprehensive model of nursing turnover intention by examining the effects of job demands, job resources, personal demands and personal resources on burnout and work engagement and subsequently revealing which variables have the most significant effect on nursing intention to leave the organisation and profession. By contributing to a clearer understanding of nursing retention, this study aims to help nursing planners and policy makers with decisions that will help them stabilise the future nursing workforce.

1.4 Key definitions

Registered nurses use nursing knowledge and judgment to assess health needs, provide care and advise and support people to manage their health (Nursing Council

of New Zealand, 2007). They practise independently and in collaboration with other health professionals, perform general nursing functions while delegating to and directing enrolled nurses, healthcare assistants and others. Registered nurses are accountable for ensuring that all health services they provide are consistent with their education and assessed competence, meet legislative requirements and are supported by appropriate standards. Under the Health Practitioners Competency Act 2003 there are three scopes of practice for nurses in New Zealand - Registered Nurse, Nurse Practitioner and Enrolled Nurse. The term registered nurse or RN is used in this study to refer to all three scopes as the survey was open to people working in each scope. Each RN is fit for registration, has the qualifications prescribed for the scope of practice in which he or she wishes to register and is competent to practise within that scope of practice.

Older people are defined by the Oxford English Dictionary as advanced in age; far on in the natural period of existence. People's ageing is said to be a natural process (George & Ferraro, 2015). The World Health Organization (WHO) had difficulty defining a specific age as 'old' because 'old' is a social construction (World Health Organization, 2002b). Old age does not start specifically at any particular age as the changes of age are varied and complex (Tinker, 1993). In New Zealand, people are eligible for the old age pension or superannuation at 65. 'Young old' has been defined as being aged between 65 and 79, with those aged 80 and over being termed the 'older old' (Cornwall & Davey, 2004)

Chronic or long-term conditions are defined as any on-going, long-term or recurring condition that can have a significant impact on a person's life (Cornwall & Davey, 2004). They include many different conditions, such as cardiovascular disease, cancer, diabetes, respiratory disorders, arthritis, chronic pain, depression, Parkinson's disease, epilepsy, Alzheimer's disease, Acquired Immunodeficiency Syndrome (AIDS) and Human Immunodeficiency Virus (HIV), bipolar disorder and alcohol and drug dependency. These conditions can result in premature death, as well as contribute to disability and considerable economic and social burden due to loss of productivity and increased health and social care requirements (Ministry of Health, 2008).

Turnover intention, or **intention to leave**, has been defined as employees' willingness to leave the current workplace voluntarily (Haddad, 2010; Vigoda-Gadot & Ben-Zion, 2004). In some literature, turnover intention is considered hypothetical in nature and is interpreted as a desire or thought which could activate behaviours leading to actual turnover (Allen, Weeks, & Moffitt, 2005; Castle, Engberg, Anderson, & Men, 2007; Chiu, Chien, Lin, & Hsiao, 2005; Harris, James, & Boonthanom, 2005; Susskind, 2007). In other literature, intention has a stronger connotation of a decision, determination or plan to leave the current job (Blau & Lunz, 1998; Cunningham & Sagas, 2003; Karsh, Booske, & Sainfort, 2005; McCarthy, Tyrrell, & Lehane, 2007). Overall, turnover intention is believed to lead to actual turnover and many researchers refer to turnover intention as the immediate antecedent of actual turnover (Egan, Yang, & Bartlett, 2004; Huffman, Adler, Dolan, & Castro, 2005; Layne, Hohenshil, & Singh, 2004; Schwepker, 1999).

Global financial crisis/recession is broadly defined as a self-reinforcing reduction in economic activity characterised by persistent job losses precipitating increased unemployment (Leamer, 2008). The global economic crisis that began in 2007 was caused by failures in monetary policies, inadequate regulation of financial institutions and problems in financial markets (Furceri & Mourougagne, 2009). Common problems across countries and regions included a reduction in GDP, reductions in government budgets, increases in unemployment and lower inflation rates (Furceri & Mourougagne, 2009; International Labor Organization, 2011). Like most OECD countries, New Zealand's economy experienced an economic slow-down following the global financial crisis. By 2010, the country's economy had begun to recover, led mainly by exports, strong Government accounts and a well-capitalised banking system (OECD, 2015b).

1.5 Summary

In conclusion, this chapter provides a brief overview of the context in which this study takes place. This includes key issues relating to the ageing of the population and nursing workforce, the increasing prevalence of chronic disease, the impact of nursing shortages and the determinants of nursing turnover. This study contributes new knowledge from a robust sample of RNs and develops a strong model of nursing

turnover grounded in the JD-R model design. This will provide health planners and funders with new information to help improve health policy targeted at retaining RNs in the profession. The next two chapters present the literature review.

Chapter 2: Literature review – Nursing within a changing health sector

Although there are recurring reports of manpower shortages in many other professional fields, nursing seems to enjoy the dubious distinction of continually suffering from this condition.

Spohn (1954, p. 865)

2.1 Introduction

The literature review is presented in two chapters. This chapter examines changes in the global and New Zealand population, focusing on the ageing and increasing morbidity of the population. Reasons for the ageing population and increasing levels of chronic disease and disability are examined. The resultant effects on health services and expenditure are outlined. The context of the New Zealand nursing workforce is developed, including ageing, supply and turnover of the nursing workforce and effects of the economic downturn. Finally, the impact of the predicted nursing workforce shortage is examined.

2.2 Search methodology

Articles in this literature review were obtained via computer searches from multiple medical, nursing, allied health, psychological and human resource management databases. The majority were retrieved from Medline (OvidSP), CINAHL Plus, PubMed, Scopus, ABI/Inform and Cochrane databases. The University of Auckland's Philson and General Libraries were used for all manual searches and online searches were undertaken using the Internet search engines Google (<http://www.google.co.nz>) and Google Scholar (<http://scholar.google.com>) and manually searching the Ministry of Health web page (<http://www.moh.govt.nz>). Keywords in the searches included 'nurs*', 'turnover OR quit*', 'predict* OR intent*', 'framework OR theory'. Publications and reports by the New Zealand Ministry of Health were also used. Primary inclusion criteria were articles that referred to registered nurses (RN) in research, or discussion on turnover or quitting intention or behaviour; secondly,

articles that referred to RN attitudes and beliefs concerning work; and thirdly, articles that engaged with issues of developing and/or implementing retention strategies, particularly if they paid attention to health services in New Zealand.

2.3 Population ageing

The baby-boomer generation refers to people born during a period of high fertility following World War II (1946 to 1960). Subsequently, a considerable rise in the proportion of older people is predicted as this cohort reaches 65 years. This increase will be most significant by the year 2030 (Kinsella & Velkoff, 2001). Globally, between 1990 and 2012, life expectancy at age 60 increased from 16.6 years to 18.5 years for men and from 19.7 years to 21.5 years for women (World Health Organization, 2014b). In developed countries, 23 percent of the population is already aged 60 years or over and that proportion is projected to reach 32 percent in 2050 (United Nations, 2013). Further to this, improving late age mortality is driving large increases in numbers and proportions of the ‘oldest old’ aged 85 and over (Grundy, Tomassini, & Festy, 2006). Whereas the number of people aged 60 plus is expected to more than triple by 2100, that of people aged 80-plus is projected to increase almost seven-fold by 2100, increasing from 120 million in 2013 to 830 million in 2100 world-wide (United Nations, 2013). Continued progress in the longest living populations suggests that we are not close to reaching a limit on ageing and further increases in life expectancy seem likely (Rau, Soroko, Jasilionis, & Vaupel, 2008).

The increase in longevity is believed to be the result of the complex interaction of improved medicine, sanitation and nutrition (Kinsella & Velkoff, 2001). In most developed countries, mortality is low and decreasing (Kinsella & Velkoff, 2001). In developing nations, mortality is also declining except for countries largely affected by the AIDS epidemic where mortality is increasing (United Nations, 2006). Data from high-income countries on causes of death indicate that falls in mortality from cardiovascular diseases are the main driver of rising life expectancy at age 60 for both men and women (United Nations, 2006). Throughout 2010-2100, systematic progress against mortality is further expected to increase life expectancy at birth up to 88.9 years in more developed countries and 80.8 years in less developed countries (United Nations, 2013).

New Zealand's population is projected to rise from 4.5 million in 2014 to 5.2 million in the mid-2020s and 7.2 million in the late 2060s (Statistics New Zealand, 2014). Like the global population, New Zealand's population is ageing (Ministry of Health, 2016b). The number of New Zealanders aged 65-plus is projected to climb from 650,000 in 2014 to over 1 million in the late 2020s (Statistics New Zealand, 2014). Those aged 65-plus will then account for 20 to 22 percent of the population, compared with 14 percent currently. Contributing factors to the ageing population are increased longevity combined with the baby-boomer cohorts reaching 65-plus years (Bascand, 2007). As a result, the greatest growth of the older population is expected between 2011 and 2037, when the baby-boomers are in the 65-plus age group (Bascand, 2007).

The older population in New Zealand is itself ageing, as those in the 'oldest old' age group (85+) make up an increasing proportion of the older population (Bascand, 2007). It is projected that within the older population, the oldest old age group will have the highest growth rate, increasing six fold from 2000 to 2051, with numbers rising from around 55,000 in 2005 to 320,000 in 2051 (Cornwall & Davey, 2004; Dunstan & Thomson, 2006). By 2051, there will be 1.18 million people aged 65-plus (26% of the population) and 292,000 (5.3%) aged 85-plus. This is a total increase between 2001 and 2051 in the 85-plus population of 485 percent, compared to a total increase in the 65-plus population of 158 percent and the total New Zealand population of 20 percent (Ministry of Health, 2002).

Trends in population ageing both internationally and in New Zealand are resulting in increasing demand for healthcare workers such as RNs. Those same ageing trends mean the international nursing workforce is also ageing, with many RNs nearing retirement. If this issue is ignored, demand could eclipse supply. It is therefore essential to investigate what can be done to bolster the nursing workforce so it can cope with the demand.

2.4 Burden of disease

Much of the literature indicates that as life expectancy advances and the population ages, the proportion of older people rises, resulting in an increase in the prevalence of chronic disease and disability (Grundy et al., 2006; Institute of Medicine, 2001). Chronic illnesses such as heart disease, stroke, arthritis, osteoporosis, cancer and Alzheimer's largely affect older people, with the likelihood of older people having two or more diseases increasing with age. This may contribute to disability, reduced quality of life and increased demand and cost for healthcare (Goulding & Rogers, 2003). The ageing population will necessitate a shift of focus from acute illnesses to chronic diseases and the provision of ongoing management will be required as disability often accompanies chronic illness (Institute of Medicine, 2001).

However, other researchers challenge the assumptions underlying these predictions. Chase (2002) examined data from the United States and concluded that disability among older people had declined by nearly two percent per year since 1984. Reasons for the change in health and disability status are identified as declines in infectious diseases, higher education and socio-economic status, a decline in smoking and new surgical techniques and medicines. Chase suggested that whilst healthcare demand and medical spending rose with age, old age itself was not associated with those factors. The association is actually with disability and poor health. Therefore, if people age in a healthier way, demand for care and medical spending should not increase as rapidly. Rather than age itself, proximity to death has been proposed as the reason for a positive correlation between healthcare expenditure and age (Miller, 2001; Moise & Jacobzone, 2003).

'Burden of disease' measures how much healthy life is lost due to premature death, illness or impairment (Ministry of Health, 2013). In 2010, the three leading risk factors for global disease burden were high blood pressure, tobacco smoking and household air pollution from solid fuels (Lim et al., 2012). In developed countries, poor diets and sedentary lifestyles have led to increases in body-mass index. Being overweight carries with it risks for type II diabetes, coronary heart disease, cancer, hypertension, dyslipidemia, stroke and many other life threatening ailments, and high body mass index is now the leading risk of disease in Australasia (Lim et al., 2012).

In 2014, the Organisation for Economic Co-operation and Development (OECD) prepared statistical health data for individual countries across the world. The report stated that in 2012, life expectancy at birth in New Zealand for men and women, combined stood at 81.5 years, more than one year higher than the OECD average of 80.2 years (OECD, 2014). This was still lower than other OECD countries such as Japan, Iceland, Switzerland, Spain, Italy and France, which all registered life expectancies of over 82 years. The proportion of smokers among adults has shown a marked decline over time in most countries, due to policies aimed at reducing tobacco consumption through public awareness campaigns, advertising bans and increased taxation. Smoking rates among adults in New Zealand decreased from 25 percent in 2000 to 16.5 percent in 2012, a rate that is significantly lower than the OECD average of 20.7 percent. At the same time, obesity rates have increased in recent decades in all OECD countries. In New Zealand, the obesity rate among adults was 28.4 percent in 2012, up from 25 percent in 2003. It remains lower than that in the United States (35.3 percent in 2012), but higher than that in most other OECD countries (an average of 22.7 percent).

In 2014, most New Zealanders reported feeling they were in good health (Ministry of Health, 2014a). Adults and children living in the most deprived areas have higher rates of all health risks, including smoking, hazardous drinking and obesity. Māori and Pacific peoples are particularly vulnerable, reporting higher rates of most health conditions, particularly diabetes, asthma and mental health conditions (Ministry of Health, 2014a). Obesity is becoming more common and has long-term health and social impacts. Among New Zealand children as a whole, 10 percent are obese, but the rate is 30 percent in Pacific children (Ministry of Health, 2016b). For decades in New Zealand, chronic diseases have contributed the major share of inequalities in life expectancy for Māori and Pacific peoples with low incomes (Ajwani, Blakely, Robson, Tobias, & Bonne, 2003). Mismanagement of chronic disease is the leading cause of hospitalisations in New Zealand, accounting for 80 percent of all preventable deaths (National Health Committee, 2005a). This is estimated to consume a major proportion of healthcare funds. Chronic diseases are also a barrier to independence, participation in the workforce and in society and therefore have immeasurable social and economic costs.

The growing complexity of patients increases the demand for a nursing workforce strong in numbers, as well as a dynamic workforce that is able to address complex needs. The nursing workforce is the largest group of healthcare providers and it is therefore essential that attention is paid to finding ways to ensure a durable nursing workforce.

2.5 Impact on health services

In 2014, the New Zealand Ministry of Health listed the biggest local challenges as being changing population health needs and the burden of disease (particularly the rising impact of chronic diseases such as diabetes and obesity); an ageing population and a workforce that is ageing alongside it; rapid advances in technology, developments in personalised medicine and changing public expectations; a constrained funding environment; and a growing fiscal sustainability challenge as health consumes an increasing proportion of government expenditure (Ministry of Health, 2014b). A key driver for reform of the health system and the health workforce is the recognition that current healthcare costs are unsustainable. The health system's funding comes mainly from Vote Health, totalling just over NZ\$14,655 billion in 2013/14. Health spending has been growing at a faster rate than GDP in New Zealand for much of the last 60 years. Real spending has increased from NZ\$583 per person in 1950 to NZ\$2987 per person in 2011, inflation adjusted (Ministry of Health, 2014b). The New Zealand Treasury projects that, unless the health and disability system changes its approach, the government will need to spend a much higher percentage of GDP on health services (which will begin to crowd out other government activity or consumption), or reduce access to services, or require patients to pay a greater share of costs.

Meeting the ongoing needs of people with chronic disease and providing quality acute care calls for proactive primary care, as well as greater coordination of care across hospital and community-based services. The New Zealand Primary Healthcare Strategy (Ministry of Health, 2001) provided a clear direction for primary healthcare services outlining how its approach to primary healthcare will improve the health of the population through: greater emphasis on population health, health promotion and preventative care; community involvement involving a range of professionals and encouraging multidisciplinary approaches to decision-making; improving accessibility,

affordability and appropriateness of services; improving coordination and continuity of care; providing and funding services according to the population's needs (as opposed to fee-for-services when people are unwell). The shift from a traditional health system focused on hospital-based care delivered by doctors towards a team-led primary healthcare service is supported by The New Zealand Health Strategy (Ministry of Health, 2016b). The strategy suggests providing services from a multidisciplinary team of healthcare workers that enables patients to self-manage their health closer to where they live, work and play. The nursing workforce will continue to play a key role in bridging the gap between tertiary and primary care settings and will be crucial to helping people manage their care closer to home.

2.6 The health workforce

A report released by WHO (2014a) stated that the world was short of 7.2 million healthcare workers, a figure which is estimated to rise to 12.9 million by 2035. The report warned that not addressing this issue now will have serious implications for the health of billions of people across all regions of the world. Since 2000, the number of doctors has grown in most OECD countries, both in absolute number and on a per capita basis. In 2013 the OECD mean was just over three doctors per 1,000 population (OECD, 2013). In Australia and the United Kingdom, the increasing number of doctors has been driven mainly by a strong rise in graduation rates from domestic medical education programmes. Despite these increases, a shortage of doctors remains in most countries (World Health Organization, 2014a).

Registered nurses greatly outnumber doctors in most OECD countries (OECD, 2015a). They play a critical role in providing healthcare not only in traditional settings, such as hospitals and long-term care institutions, but increasingly in primary care and homecare settings. However, there are concerns in many countries about shortages of RNs and such concerns may well intensify in the future as the demand for RNs continues to increase and the ageing of the baby-boomer generation precipitates a wave of retirements among RNs. The predicted impact of this has prompted actions in many countries to increase the training of new RNs (OECD, 2015a). This is being combined with efforts to increase the retention of RNs in the profession, even as the economic crisis has tightened health budgets. The number of RNs per capita increased

in almost all OECD countries over the past decade (OECD, 2015a). Although this may give the appearance of strong nursing workforces, this may be short lived. As the demand for healthcare increases due to a population that is both ageing and seeing an increasing prevalence of chronic disease, the nursing workforce itself is ageing and nearing retirement. This is likely to result in major nursing shortages across the globe. For example, a nursing workforce study in Australia has projected that by 2025 they could be facing a shortage of between 90,000 to 109,500 RNs if no action is taken (Health Workforce Australia, 2012).

New Zealand has experienced a substantial expansion of its medical workforce since 2000 (OECD, 2014). In 2012, New Zealand had 2.7 doctors per 1000 population, up from 2.2 in 2000. This nonetheless remains below the OECD average of 3.2. There were just over 10 RNs per 1000 population in New Zealand in 2012, a higher figure than the average of 8.8 in OECD countries. Like the population it serves, New Zealand's health workforce is ageing and as these health professionals retire, the capacity of the health and disability system will be greatly impacted. The New Zealand medical and nursing workforce is also strongly affected by long-term emigration to Australia; consequently what happens in the Australian health system is of immediate concern to New Zealanders (Zurn & Dumont, 2008). Although emigration rates may have slowed in the current economic climate, the predicted nursing shortage in Australia is likely to have a significant impact on the future supply of RNs in New Zealand as they are lured across the Tasman with competitive work opportunities.

It is not only important how many health professionals there are, but also how they are used. Traditional healthcare training is increasingly acknowledged as limited because of its fundamental focus on the diagnosis and treatment of acute medical problems. Although acute disease will always require the attention of healthcare providers, a training model that is focused on managing acute symptoms is increasingly recognised as insufficient to address the concerns of the growing population of patients with chronic disease. A re-conceptualisation of patient care needs a new set of workforce competencies. WHO (2014a) agreed that skills-mix imbalances persist and advanced health practitioners, including RNs, were still insufficiently used in many settings. Given the health workforce now requires a focus on care organised around the patient, there needs to be a focus on a range of communication skills that enable

the workforce to collaborate with both patients and other providers within the community; skills to ensure that the safety and quality of patient care are continuously improved; skills that assist the workforce in monitoring patients across time; and skills using and sharing information through available technology.

To respond to the changing risk of disease, the health and disability workforce will need to work in different ways. There will be greater emphasis on working with a wider range of colleagues (within the health sector and the broader public services including local government) and partnering with individuals, their family and communities to ensure services are delivered in a way that meets people's needs (Ministry of Health, 2014b). Therefore, new roles for established health professions and innovative health practitioners need to be identified (Gorman & Borooks, 2009). For example, the nurse practitioner is an advanced practice nurse who has acquired an expert knowledge base, complex decision-making skills, and clinical competencies for expanded practice (Network INPAPN, 2015). Evaluations of nurse practitioners from the United States, Canada and the United Kingdom show that these RNs can improve access to services and reduce waiting times, while delivering the same quality of care as doctors (OECD, 2013). Most of these evaluations find a high patient satisfaction rate, while the impact on cost is either cost-reducing or cost-neutral.

2.7 An ageing nursing workforce

It is evident that the increase in demand for healthcare will occur at the same time that the supply of RNs is under threat. Just as the general population is ageing, recent reports indicate that 46 percent of the nursing workforce in New Zealand is now aged 50 or over (Ministry of Health, 2014b). This reflects large cohorts of baby-boomer RNs ageing into their fifties (Buerhaus et al., 2009). Research has shown a steady decline in the retention of RNs from the age of 50 years (Nursing Council of New Zealand, 2011). It is predicted that over 50 percent of the present workforce will retire by 2035 (Nursing Council of New Zealand, 2013a). This will particularly affect specialty areas of palliative care, occupational health, obstetrics/maternity and continuing care, intellectually disabled, district nursing and nursing administration and management, where the majority of RNs over the age of 50 tend to work (Nursing Council of New Zealand, 2011).

Considerable research has documented the stressful nature of the clinical environment for many RNs due to increasing complexity of care provision, pressure to meet economic and politically driven targets, high turnover of RNs and a demanding work environment (Bernal et al., 2015; E. M. Chang et al., 2007; D. Jackson, Firtko, & Edenborough, 2007; S. L. Johnson, 2009; A. M. Rafferty, 2009; Taylor & Barling, 2004). RNs will often have personal circumstances which compound these stressful factors, including work-related health issues such as back pain or family responsibilities caring for children, grandchildren or ageing parents (Huntington et al., 2010). As more RNs are rapidly nearing retirement they may also be subject to the health challenges that arise with age (O'Brien-Pallas, Duffield, & Alksnis, 2004). Older RNs are more sensitive to age-related changes and report experiencing reduced physical and psychological capabilities to perform their job (Camerino et al., 2006). There is, therefore, a need to develop prevention programmes that address the needs of older RNs to enable them to remain healthy until retirement age (Maatouk et al., 2016).

2.8 Supply and turnover of Registered Nurses in New Zealand

It is important to maintain an active pool of RNs through ongoing supply and reduced turnover. Hasselhorn, Muller, and Tackenberg (2005) provided a theory of ways in which the pool of active RNs remained efficient (Figure 2-1). Possible ways to address the issue of nursing shortages on the input side are ensuring adequate intake into education facilities at nursing schools or by increasing immigration of nursing staff from other countries, while on the output side encouraging older RNs to delay retirement and reducing levels of premature departure of RNs already working in the New Zealand health system.

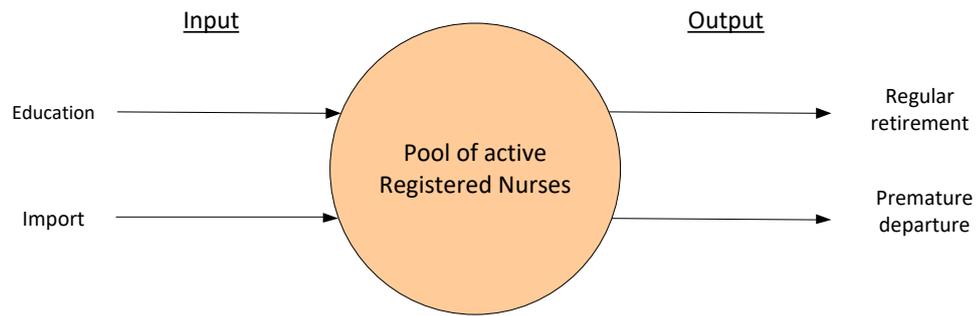


Figure 2-1: Aspects increasing and decreasing the pool of active RNs (Hasselhorn, Muller & Tackenberg, 2005)

While the input of new graduate RNs and overseas-trained RNs is an important component of maintaining the nursing workforce, reliance on these inputs is problematic. North et al. (2013) reported on the national mean cost of new RN employees, including categories of new graduates, overseas-trained RNs and RNs external to the organisation. Costs included those associated with new employee productivity loss and training time, as well as costs of recruitment and hiring. The highest productivity losses were incurred by having to replace RNs with new graduates and overseas-trained RNs.

Nursing shortages are compounded by a culture of turnover that appears to exist within the workforce (North et al., 2013). North, Leung, and Lee (2014a) reported that between 2006 and 2011, one-quarter of RNs aged 50-plus had left the workforce. Permanent leaving rose sharply at 64 years, as retirement fund-eligibility (at 65 years) approached. Half of the cohort over 65 years continued to practise. Annual loss from the workforce declined sharply when the global financial crisis began in 2007 when many RNs re-entered the workforce. The study concluded that a portion of RNs who leave the workforce want to re-enter again, highlighting the need to identify factors to encourage re-entry.

2.9 Effects of the economic downturn

The nursing workforce examined in this study exists in a world that has been deeply affected by economic change and financial recession. There are five key indicators for measuring the effect of economic downturns on the nursing labour market: demand, supply, salary, turnover and shortages (Alameddine, Baumann, Laporte, & Deber, 2012). The temporary effects of changes to these indicators risk destabilising the nursing labour market in the long-term.

On the demand side, pressures have increased for Health Ministries and healthcare providers to demonstrate efficiency in how resources are allocated and spent, resulting in public sector employment and staffing reductions in many countries (Organisation for Economic Co-operation and Development, 2011; Vaughan-Whitehead, 2012). As the largest group of healthcare professionals, RNs are strongly affected by cost reductions. As many institutions restructure, downsize, merge or actively shift care from hospital to community, the easiest and fastest means to cut costs is often to reduce the nursing workforce (C. Duffield, Kearin, Johnston, & Leonard, 2007; Lineweaver, Battle, Schilling, & Nall, 1999). Such restructuring may precipitate detrimental and difficult-to-reverse consequences in the longer run (Hertting & Theorell, 2002).

On the supply side, Buerhaus et al. (2009) reported an increase of hospital RN employment of 243,000 between 2007 and 2008, the largest two-year increase in the USA in the past 40 years. More than half those RNs were over 50 years old. Nursing is a predominantly female profession with many RNs having considerable family responsibilities. Therefore, during a recession many RNs who were not working or working part-time may re-join the workforce or change to full-time status because their partners have a reduced income and they must sustain their household's economic security (Buerhaus, 2009; Staiger et al., 2012). Some RNs may move to holding more than one job, while others who were working in different sectors may return to nursing if their current occupational positions become tenuous.

Many studies report a strong correlation between job dissatisfaction and nursing turnover (Applebaum, Fowler, Fiedler, Osinubi, & Robson, 2010; D. K. Boyle, Bott,

Hansen, Woods, & Taunton, 1999; Ma, Lee, Yang, & Chang, 2009; Tourangeau & Cranley, 2006; van der Heijden, van Dam, & Hasselhorn, 2009; Zurmehly, Martin, & Fitzpatrick, 2009). During times of economic stability, RNs who are dissatisfied with aspects of their work environment feel able to leave their work setting and seek better employment opportunities elsewhere, or perhaps stop working altogether. Economic downturns might prevent this from happening due to decreased job vacancies and increased financial pressures from families (Alameddine et al., 2012). For example, a study by Brewer et al. (2012) reported that although RN income and job satisfaction levels had remained unchanged since the recession began, their commitment to their employers had increased. They suggested that the recession induced retired RNs to re-enter nursing, working RNs to increase their hours and delay retirement, and newly licensed RNs to wait for the economy to improve before changing jobs. However, RNs may also be encouraged to look for new roles with richer financial benefits. For example, Buerhaus et al. (2009) reported that between 2007 and 2008, up to 50,000 RNs in the USA left their jobs in non-hospital settings and switched to hospital positions, presumably to take advantage of higher earnings and greater benefits.

The effects of increased supply and decreased turnover give the appearance of a strong nursing workforce. However, this may only be a temporary relief of previously reported shortages. Demand for healthcare will continue to increase due to the ageing population and increasing prevalence of chronic disease and co-morbidities in older patients (Joumard et al., 2010). As the economy improves the restoration, expansion and improvement of healthcare services necessitates the quick hiring of RNs, which increases the demand for RNs in the market (Alameddine et al., 2012). Further to increased demand, the long-term effect of the economic downturn might be a decrease in the supply of RNs. In some countries, the supply of new graduate RNs is decreasing due to space constraints in educational institutions, shortages in the number of faculty members, fewer nursing preceptors at healthcare organisations and diminished scholarships available for students (Broome, 2010; Zabalegui & Cabrera, 2010).

The New Zealand economy continues to gain momentum, with business investment and household spending gathering pace (New Zealand Treasury, 2015; OECD, 2013, 2015b). There is a risk that RNs who re-entered or extended their involvement in the workforce during the economic downturn because they needed the money will leave

their jobs or reduce their hours as their family's financial situation improves (Staiger et al., 2012). Further to this, it is anticipated that the supply of RNs will be hugely reduced due to the ageing workforce nearing retirement (Buchan et al., 2013). A study of over 11,000 RNs across eight European countries also suggested that RNs might choose to leave the profession due to accumulated stress and burnout precipitated by heavy workloads and poor working environments (Hasselhorn et al., 2008). Further to this, a feeling of effort-reward imbalance may also impact the supply of RNs. The 2004/5 'national Multi-Employer Collective Agreement' (MECA) increased RN wages by a mean of seven percent, enabling a more systematic approach to safe staffing and public sector RN pay to move forward (Buchan & North, 2009). However, in 2010, a survey of over 1,000 RNs in New Zealand reported that 68 percent felt financially undervalued (New Zealand Nurses Organisation, 2011).

While turnover within the nursing profession can represent career advancement and acquisition of new skills and experience, it can also come at the cost of vacancies, increased workload and lack of continuity for both patients and colleagues (New Zealand Nurses Organisation, 2011). New Zealand RNs demonstrate considerable job change, both to different jobs with the same employers and to different employers; however they appear to have responded to general employment uncertainty by working longer hours and changing employment less often (New Zealand Nurses Organisation, 2011). Although some recent research provides data on the turnover behaviours of RNs that can be analysed in the context of the changing economy, there is little research that directly asks RNs in New Zealand how the economic downturn has affected their work behaviours or asked them about their future working plans. This study addresses this gap in knowledge by providing new information on these issues.

To date, there is little understanding of how financial downturns affect transitions into and out of the RN workforce, making it difficult for employers and workforce planners to anticipate how many RNs might choose to leave the workforce as the economy continues to improve. Recent research by the Nursing Council of New Zealand (2013a) explored different scenarios to illustrate how decisions made now about workforce supply are likely to impact on the size and makeup of the nursing workforce by 2035. They concluded that under a business-as-usual situation where the number

of students enrolling and completing nursing qualifications remains stable, the rate that RNs enter and leave the workforce will continue at the same level as 2010. This would mean, if the proportion of overseas-trained RNs remains the same, New Zealand will be unable to maintain a satisfactory RN-to-population ratio and by 2035 a shortage of 15,000 RNs will exist. Although such figures offer some insight into the looming nursing shortage, they fall short of providing information on the motivations of RN working behaviours and future working intentions. This study adds to the literature by providing information that enables a deeper understanding of the many facets that affect the decisions RNs make around working in New Zealand, which will help nursing planners and stakeholders to create effective retention strategies and policy changes that strengthen the future nursing workforce.

2.10 Impact of the predicted nursing workforce shortage

RNs make up the largest professional group in healthcare, therefore nursing shortages are an increasingly important policy concern. Such shortages have negative impacts on health costs, patient care and staff morale. Studies in Canada (O'Brien-Pallas et al., 2010; O'Brien-Pallas, Murphy, & Shamian, 2008), Australia (C. Duffield, Roche, O'Brien-Pallas, & Catling-Paull, 2009) and the USA (Jones, 2008) reflect concerns about managing the significant costs of RN turnover, its impacts and the widespread use of temporary cover to address staff shortages. The wage bill and turnover of RNs contributes the highest total organisational costs because of the large workforce size (Waldman, Kelly, Arora, & Smith, 2004).

A failure to deal with nursing shortages locally, regionally, nationally or globally, will lead to failure to maintain or improve healthcare (Buchan & Aiken, 2008). A range of studies has demonstrated links between RN staffing levels and negative health outcomes (Kane, Shamliyan, Mueller, Duval, & Wilt, 2007). These include increased mortality rates (Buchan, 2006; A. Rafferty et al., 2007); increased patient medical complications (Buchan, 2006; C. Kovner & Gergen, 1998); increased cross-infection rates (Stanton, 2004); and reduced nursing efficiency and safety (North & Hughes, 2006).

Once staff shortages occur, there is an increase in workload for those who remain (Baumann et al., 2001). This inevitably results in overtime, double shifts and the employment of casual staff. A study in Australia showed that as the workforce becomes increasingly casualised, rostering staff becomes more difficult with full-time members often faced with working around those on fixed part-time shifts (Creegan, Duffield, & Forrester, 2003). The loss of control over one's work life becomes yet another stressor. Control over practice and working life have been identified internationally as key work environment issues for RNs (Aiken, Clarke, & Sloane, 2001; Baumann et al., 2001). During times of shortage, hospitals will often float RNs between wards to fill shift vacancies. The views of RNs as 'one size fits all' or 'a nurse is a nurse is a nurse,' devalues expertise built up through education and experience (C. Duffield & O'Brien-Pallas, 2003). While such measures may at times be unavoidable, the expectation that, for example, a cardiothoracic RN will perform at the same level in a neurosurgical ward is unrealistic and will likely result in additional anxiety and stress for the RN and ward staff (C. Duffield & O'Brien-Pallas, 2003).

2.11 Summary

The combination of an improving economy, an ageing population with increasing chronic illness, an ageing workforce nearing retirement and younger RNs emigrating for perhaps perceived better opportunities overseas, will lead to serious demand-supply imbalances of RNs in New Zealand over the coming years. A shortage of RNs is not necessarily a shortage of individuals with nursing qualifications, but a shortage of RNs willing to work in the present conditions. As such, finding solutions that address the anticipated nursing shortage should focus on the motivations of RNs, incentives to recruit and retain them and ways to encourage RNs not currently working to return to the profession (Buchan & Aiken, 2008). Healthcare providers will need to look beyond the traditional policy responses to create innovative interventions that use current nursing resources more effectively (Buchan et al., 2013; Staiger et al., 2012). With such looming uncertainty surrounding the future of the nursing workforce, nursing executives need to assess their nursing staff's attitudes toward their jobs and develop an action plan to identify initiatives that can be implemented in the near term (Buerhaus, 2009). This involves examining the determinants of employee turnover, which are explored in the following chapter.

Chapter 3: Literature review – Determinants of employee turnover

And the danger is that in this move toward new horizons and far directions, that I may lose what I have now...

Sylvia Plath (1932 – 1963)

3.1 Introduction

The personal and organisational costs of leaving a job are often very high and there is a great amount of literature exploring the reasons why people leave their jobs. This chapter first examines the human resource management literature, exploring how employee turnover is defined and the theories behind why employees choose to voluntarily leave. Next, models of employee turnover are discussed, starting with earlier traditional models and then more recent contemporary models. The job demands-resources (JD-R) model that underpins this study is presented in detail and evidence for the model provided. Then, issues specific to turnover within nursing are explored. Finally, the leading models of nursing turnover are discussed.

3.2 Understanding and defining employee turnover

The major costs of labour turnover are not recruitment and selection, although these are not insignificant, but training and development (Winterton, 2004). Turnover raises questions of skills retention and the transfer of skills and knowledge, especially those that are tacit and informal, from the departing employee to other employees. To establish an effective strategy for skill formation, labour retention must be sufficiently high for the length of service to provide a return on human resource development investment (Winterton, 2004). It is widely believed that a high level of turnover adversely influences organisational effectiveness and the degree to which organisations achieve their goals (Hom & Griffeth, 1995). High rates of turnover are even more problematic when the supply of skilled and knowledgeable employees is limited, thus leading to a permanent loss of productivity. It is not surprising then that employee

retention has received great attention over the years from researchers in a variety of fields including human resource management, psychology and nursing.

There are three main reasons why employees are thought to discontinue work: retirement, dismissal or voluntary resignation (Winterton, 2004). Voluntary resignation represents a personal decision to quit work, while dismissal and retirement are often heavily influenced by management. However, the stage at which an employee decides to retire can also be a very personal decision and may vary between employees depending on their circumstances. A review of literature since 1998 by Takase (2010) concluded that turnover intention is defined as employees' willingness or attempts to leave the current workplace voluntarily (Sablinski, Lee, Mitchell, Burton, & Holtom, 2002; Vigoda-Gadot & Ben-Zion, 2004). This review indicated that turnover intention is a multi-stage process consisting of three components that are psychological, cognitive and behavioural in nature. The psychological component of turnover intention is seen as the starting point of the multi-stage turnover reaction. Some of the literature saw turnover intention as a psychological response to negative aspects of organisations or jobs which trigger employees' emotional and attitudinal withdrawal reactions (Chiu, Lin, Tsai, & Hsiao, 2005; Susskind, 2007). These emotions and attitudes include frustration and dissatisfaction with organisations (Houkes, Janssen, de Jonge, & Bakker, 2003; Vigoda-Gadot & Ben-Zion, 2004).

The cognitive component is seen as the core of turnover intention (Takase, 2010). Turnover intention is defined as the final cognitive step leading to actual turnover (Bigliardi, Petroni, & Dormio, 2005; Hang-yue, Foley, & Loi, 2005; Lambert, Hogan, & Barton, 2001). In some literature, turnover 'intention' is considered hypothetical in nature and is interpreted as a desire or thought which could activate behaviours leading to actual turnover (Allen et al., 2005; Castle et al., 2007; Chiu, Chien, et al., 2005; Harris, James, et al., 2005; Susskind, 2007). In other literature, 'intention' has stronger connotations of a decision, determination or plan to leave the current job (Blau & Lunz, 1998; Cunningham & Sagas, 2003; Karsh et al., 2005; McCarthy et al., 2007).

Withdrawal behaviour follows the cognitive component of turnover intention and is categorised into two groups: withdrawal from the current job and actions oriented to future opportunities. Withdrawal from the job manifests in both behavioural and

verbal ways. The behavioural manifestations include employees daydreaming during work (Chiu, Lin, et al., 2005; Susskind, 2007), being less enthusiastic at work (Z. X. Chen & Francesco, 2000), coming in late (Harris, Kacmar, & Witt, 2005) and being absent from work (Krausz, Koslowsky, & Eiser, 1998). The verbal manifestation consists of stated or expressed intentions to leave jobs (Freund, 2005). The future-oriented behaviours of turnover intention are the actualisation of employees' cognitive intentions and are operationalised as actual job search and willingness to take an alternative job when available (Brough & Frame, 2004; Castle et al., 2007; Geurts, Schaufeli, & De Jonge, 1998; Takase, Maude, & Manias, 2005). Turnover intention was positively correlated to actual turnover six months (Huffman et al., 2005), 12 months (Allen et al., 2005) and 18 months (Alexander, Lichtenstein, Oh, & Ullman, 1998) after the initial turnover intention was measured. Overall, turnover intention is believed to lead to actual turnover with many researchers referring to turnover intention as the immediate antecedent or the mediator of actual turnover (Egan et al., 2004; Huffman et al., 2005; Layne et al., 2004; Schwepker, 1999). This is the definition used in this study.

3.3 Job dissatisfaction

The constructs of satisfaction and employment alternatives underpin most traditional concepts of employee turnover. Based on the early work of Barnard (1938) and Simon (1945), March and Simon (1958) identified the main antecedents of voluntary turnover and proposed that employee turnover resulted from the individual's perceptions about desirability and ease of movement. Later scholars, such as Mobley (1977) and Price (Price, 1977; Price & Mueller, 1981), construed movement ease as job availability and movement desirability as job dissatisfaction. Dissatisfaction prompts a search for alternatives, a comparison of alternatives via rational decision processes, and if a superior job is found, turnover will ensue.

Mobley (1977) theorised that job dissatisfaction leads to thinking about quitting, which may in turn lead to evaluations of how one might search for another job and the costs involved with quitting the present job. From that evaluation, an intention to search for an alternative job may emerge, which in turn leads to the actual search for alternatives and to the evaluation of the acceptability of those alternatives. Comparisons of the

alternatives are made with the present job, which may lead to an intention to quit and eventual turnover. This traditional view of voluntary separation considers it as a consequence of low job satisfaction combined with alternative labour market opportunities that are subjectively perceived as having higher utility with relative ease of movement to alternative employment (Price, 1977).

In an attempt to summarise and integrate prior research and theory, Steers and Mowday (1981) proposed a sequence leading to an employee's eventual staying or quitting. First, individual values and job expectations, were said to influence the employee's affective response to the job, which were specified as job satisfaction, organisational commitment and job involvement. Second, affective responses were seen as influencing the employee's desire and intention to stay or quit, with the choice depending on a variety of non-work influences. Finally, the intention to stay or quit was theorised to lead to the behaviour of staying or quitting.

In later research, Winterton (2004) agreed that the intention to quit may be stimulated by job dissatisfaction (push effect) or by perceived alternatives (pull effect). However, in the latter case, job satisfaction need not be low. The actual leaving may be stimulated by low commitment, irrespective of the level of job satisfaction, or by the ease of movement to another position. Turnover could be high even where there is a high level of job satisfaction because of abundant labour market opportunities, low organisational commitment or ease of movement in any combination. Equally, turnover may remain low despite low job satisfaction, because organisational commitment is high and there are few perceived opportunities for alternative employment. The factors related to job satisfaction and organisational commitment are more conducive to influence by management since they are largely internal to the organisation, whereas the factors affecting perceived opportunities and ease of movement are more a function of the labour market and individual circumstances.

3.4 Shocks to the system

An 'unfolding model' of voluntary employee turnover was proposed by Lee and Mitchell (1994). This model describes four decision paths that may lead to turnover, each involving psychological processes and external events. Each decision path is

underpinned by the key concepts of shocks to the system and decision frames. A shock to the system is an event that jars employees toward deliberate judgments about their jobs and results in them voluntarily quitting. The shock may be expected or a surprise, positive or negative, and it shakes an employee out of a steady state of status quo or challenges their thinking about their job. The employee's frame of reference from which they experience the shock will influence their perception of it, such as whether it is perceived within a frame of novelty, favourability, or threat.

Building on Lee and Mitchell's (1994) unfolding theory, Maertz and colleagues (Maertz & Campion, 2004; Maertz & Griffeth, 2004) identified eight motivational forces that represent why (motives) people stay or leave, based on a systematic literature review. Besides affective (e.g., job satisfaction) and alternative (e.g., job opportunities) forces, they discerned normative (e.g., external non-work shocks such as spouses' transfer, pregnancy or dependent care issues), constituent (e.g., attachment to supervisors and co-workers), contractual (e.g., psychological contract violations), behavioural (e.g., turnover costs), calculative (e.g., future internal role's expected utility) and moral (e.g., ethical norms for staying) forces. In a later study of RNs, Carol S. Brewer, Kovner, Greene, Tukov-Shuser, and Djukic (2012) incorporated the concept of shocks, operationalised as work-related injuries including sprains, strains and back injuries. They found in a survey of 1,653 new graduates, that approximately 40 percent of respondents experienced a work-related injury during the first year of employment, with nearly eight percent of them leaving their job before the end of their second year of employment.

3.5 Extending beyond job-related factors

Job embeddedness is conceptualised as a web in which an individual gets stuck both on and off the job through links to others, lifestyle fit and the costs of leaving a job (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). The original turnover models of Price and Mueller (1981), Steers and Mowday (1981) and Mobley (1982) also included 'non-work' influences such as family attachments and conflicts between work and family roles. Cohen (1995) showed how non-work commitments like family, hobbies and church influence job attitudes and attachment. Lee and Maurer (1999) discovered that having children at home and a spouse were better predictors of leaving a job than

organisational commitment. Mitchell and Holtom et al. (2001) suggested that three distinct forces were at work to embed employees: fit (how closely they match job or community); links (their work and outside ties); and sacrifices (on- and off-the-job benefits they relinquish upon leaving). Relationships have been identified as important as researchers have shown that job embeddedness explains additional variance beyond work attitudes (e.g. job satisfaction and organisational commitment) in predicting voluntary turnover (T. W. Lee, Mitchell, Sablinski, Burton, & Holtom, 2004; Mitchell et al., 2001). In addition, Mossholder et al. (Mossholder, Settoon, & Henagan, 2005) introduced a relational perspective on turnover by demonstrating that various aspects of workplace relationships can significantly influence turnover.

Although most early literature centred on job attitudes and job availability, indirect or distal antecedents were also examined by other researchers. Some authors found personal determinants that reduced turnover, such as personality and psychological capital (Avey, Luthans, & Jensen, 2009; Judge, 1993; Zimmerman, 2008) and person–job fit (Beck, 1991; Chatman, 1991). Others examined emotional or cognitive states that reduced turnover, such as perceived organisational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Riggle, Edmondson, & Hansen, 2009) and those that increased turnover, such as stress (Sheridan & Abelson, 1983) and burnout (Maslach, Schaufeli, & Leiter, 2001; Swider & Zimmerman, 2010).

3.6 A review of turnover and retention research

In the nursing literature, Holtom, Mitchell, Lee, and Eberly (2008) presented a comprehensive review of the management literature on voluntary turnover from the organisation. The first stage of the model includes predictor concepts describing individual differences and the nature of the job. The individual differences domain accounts for characteristics that a person brings to a particular job, including demographics, education, prior work experience and personality. These individual characteristics (such as advanced education or specialised skill) affect the ease with which individuals can move from an existing job to a new job. The nature of the job considers variations in job design, autonomy, work role and role states that are antecedents to individuals' work attitudes, including organisational commitment, job satisfaction and intention to leave the organisation (ITLO). The next stage of the

model focuses both on the nature of work environments and individuals' perceptions of and attitudes about their work environments at the individual, group and organisational levels of analysis. The nature of the work environment, including characteristics such as organisational size, culture and climate, shapes individuals' attitudes about an organisation, their job satisfaction and willingness to stay in the job or the organisation.

The model then describes individuals' thoughts of leaving and the search for job alternatives. In this phase, individuals make the decision to leave their current job by considering the costs and benefits of leaving, examining available job alternatives and developing a plan for leaving the current job. The availability of acceptable job alternatives is shaped, in part, by the dynamics of the labour market. As individuals progress in the search for a suitable job alternative, they develop withdrawal behaviours such as tardiness, absenteeism, or leaves of absence as well as changes in their performance. At this stage of the turnover process, individuals may also experience a trigger that propels an immediate job search or decision to quit. Finally, the turnover process concludes with the actual turnover event.

3.7 Organisational and occupational turnover

While much research has focused on organisational commitment, less attention has been paid to professional or occupational turnover. Chang (1999) suggested that commitment to occupation is distinct from organisational commitment, as individuals who are committed to both their occupation and their organisation are even less willing to leave than those who are committed mainly to the organisation. Occupational commitment is theorised as a component of work-related motivation, where motivation is defined as a set of energetic forces that initiate and sustain work-related behaviours and decision-making (Meyer, Becker, & Vandenberghe, 2004). Occupational commitment is linked with various positive outcomes, including lower absenteeism and higher work engagement (Freund, 2005) and inversely linked with intentions to leave a profession (Hackett, Lapierre, & Hausdorf, 2001).

Although this study will measure organisational commitment, the main concern of this research is the loss of employees from the profession. To measure occupational

commitment, this study measured career orientation (Price, 2001; Gurney, 1997) as well as intention to leave the profession (ITLP). Career orientation refers to the extent to which an employee views their line of work as one that they wish to pursue for many years so that it is different from a job taken mostly to earn income (Price, 2001). Moore (2001) found that a sense of professionalism mediated RN ITLP despite the impact of restructuring changes on hospital conditions, poor management and burnout. Similarly, Angerami, Gomes, & Mendes (2000) determined that RN motives to remain in the profession related to attachment to nursing, even though their work was not recognised and they were poorly paid.

3.8 Theories of work engagement

In line with a general shift toward positive psychology, work engagement was introduced as a conceptual ‘opposite’ of burnout, which is a response to chronic work-related stress manifested as depleted emotional resources, cynical attitudes toward work and reduced professional efficacy (Maslach, Jackson, & Leiter, 1996). Work engagement has been defined as a “persistent, positive affective-motivational state of fulfilment” (Maslach et al., 2001, p. 471). Theoretically, work engagement develops as a function of the same job resources that fuel motivation and inspire positive emotions toward the organisation. Thus, employees who feel engaged are more than willing to stay on the job (Schaufeli & Bakker, 2004). These assumptions have gained promising empirical support (Bakker, Demerouti, De Boer, & Schaufeli, 2003; Durán, Extremera, & Rey, 2004; Schaufeli & Bakker, 2004).

Although there are different views of work engagement, most scholars agree that engaged employees have high levels of energy and identify strongly with their work. This study adopts the Utrecht approach to work engagement, which includes the three dimensions of vigour, dedication and absorption, developed to be a strictly positive and relatively stable indicator of occupational well-being (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). The most often used instrument to measure engagement is the Utrecht Work Engagement Scale (Schaufeli et al., 2002), a self-report instrument that has been validated in many countries across the world (Hallberg & Schaefer, 2006).

Research by Hallberg and Schaefer (2006) found that while both work engagement and organisational commitment refer to positive attachment to work, work engagement has the strongest connection with health complaints, job factors (autonomy, feedback, workload, role conflict) and personal factors (intrinsic motivation and turnover intention). The element of health complaints was incorporated into this study due to the high levels of work-related health issues and stress reported by RNs (Huntington et al., 2010). As it also fits well with the JD-R model, work engagement has been measured in this study rather than organisational commitment. Further to this, ITLO was measured.

3.9 Theories of job strain and burnout

One of the most frequently studied phenomena in organisational research is how employees experience and respond to work demands. Over the last 30 years researchers have focused on the notion of job burnout as a core conceptualisation of this (Swider & Zimmerman, 2010). Burnout is a psychological syndrome involving chronic emotional and interpersonal stressors that individuals experience at work and their subsequent responses to tasks, organisations, co-workers, clients and themselves (Cordes & Dougherty, 1993; Maslach & Jackson, 1981; Maslach & Leiter, 2008). Burnout has serious consequences for employees and employers alike. Individuals experiencing burnout may suffer from physical illnesses, sleep disturbances, work/family conflict and substance abuse (Bacharach & Bamberger, 1991; Belcastro & Gold, 1983; S. E. Jackson & Maslach, 1982; Maslach & Jackson, 1981). Organisations then experience increased turnover, absenteeism, decreased client and co-worker interactions and reduced job performance (Maslach et al., 2001; Parker & Kulik, 1995; Wright & Cropanzano, 1998).

Most models of occupational health and well-being focus exclusively on job stress and the resulting strain, thereby neglecting the potentially positive effects of work such as engagement. This resulted in a call for more balanced approaches that include job strain (Bakker & Schaufeli, 2008; Luthans, 2003; Wright, 2003). The JD-R model is an example of such a balanced approach that seeks to explain negative (burnout) as well as positive (work engagement) aspects of well-being by linking it to strain and

motivational processes (Bakker & Demerouti, 2007). The JD-R model provides the theoretical and analytical lens for this study.

Several models in the occupational health literature propose that job strain is the result of a disturbance of the equilibrium between the demands employees are exposed to and the resources they have at their disposal. Karasek's demand-control model, for example, proposes that job strain (job-related anxiety, health complaints, exhaustion and dissatisfaction) is mostly caused by a combination of high job demands (particularly work overload and time pressure) and low control (autonomy) over their job tasks (Karasek, 1979, 1998). An alternative model, the effort-reward imbalance model by Siegrist (1996) emphasises the reward, rather than the control structure of work. This model assumes that job strain is the result of an imbalance between effort (extrinsic job demands and intrinsic motivation to meet these demands) and reward (in terms of salary, esteem reward and security/career opportunities, i.e. promotion prospects, job security and status consistency). The basic assumption is that a lack of reciprocity between effort and reward (i.e. high effort/low reward conditions) will lead to stress (Bakker & Demerouti, 2007).

Both the demand-control model and the effort-reward imbalance model are too simplistic in their approach as they reduce the complex reality of working organisations to only a handful of variables that may not be relevant for all jobs (Bakker & Demerouti, 2007). The JD-R model, however, extends these models by incorporating many possible working conditions and focusing on both negative and positive indicators of employee well-being. This model can be applied to a wide range of occupations and can be used to improve employee well-being and performance (Bakker & Demerouti, 2007).

The JD-R model incorporates the variable of emotional demands as a component of job demands. Burnout is presented as entailing three distinct states in which employees feel emotionally 'spent' (emotional exhaustion), display a detached attitude toward others (depersonalisation) and experience a low sense of efficacy at work (diminished personal accomplishment), which lead to organisational consequences such as increased turnover (Maslach et al., 1996). Although it has often been presumed that jobs involving 'people work' (e.g., RNs or service workers) are emotionally taxing

(Maslach & Jackson, 1984), the emotional components of these jobs have rarely been focused on. Earlier research suggested that it was the frequency or quantity of interactions with clients or customers that caused role overload and burnout (Cordes & Dougherty, 1993), while others argued that the quality of experiences must also be considered (M. R. Frone, 1999). Frequent interaction with people may be tiring in itself given its implications for workload, but such interaction can also involve the need for employees to regulate their emotional expressions in mandated ways (Rafaeli & Sutton, 1989).

The management, or modification, of emotions as part of the work role has been termed ‘emotional labour’ (Hochschild, 1983). This may involve enhancing, faking or suppressing emotional expression to display appropriate emotions to the public. Emotional labour has been conceptualised in two main ways. First, job-focused emotional labour denotes the level of emotional demands in an occupation, such as service jobs that are thought to represent ‘people work’ (Wharton, 1993), work demands such as frequency of interactions with customers (Morris & Feldman, 1997) and job expectations to express certain emotions (Schaubroeck & Jones, 2000). Second, employee-focused emotional labour denotes employee processes or experience of managing emotions and expressions to meet work demands. This has been conceptualised as emotional dissonance (when expressions differ from feelings) (Abraham, 1998) and as emotion regulation (when one attempts to modify expressions to meet work demands) (Grandey, 2000). It has been proposed that emotional labour can be stressful and may result in burnout (Hochschild, 1983).

There is a common assumption that there is something unique about healthcare, social service work, teaching and other ‘caring’ professions that make their occupants more likely to experience burnout (Cherniss, 1992; Schaufeli, Maslach, & Marek, 1993). However, employees in ‘people work’ do not always report higher levels of emotional exhaustion (Brotheridge & Grandey, 2002; Wharton, 1993). In fact, employees caring for others in nursing may be intrinsically motivated to be genuine and to truly care about their patients, resulting in them avoiding depersonalising or objectifying these patients, thus they feel that the emotional demands of the job make it meaningful and thus rewarding (Brotheridge & Grandey, 2002; Hawthorne & Yurkovich, 1994).

In conclusion, much of the literature argues that the personal and organisational costs of employee turnover are significant. Poor skill retention means departing employees do not transfer valuable knowledge and skills to other employees and ongoing training and development of new staff is costly. Overall, it is believed that turnover intention is the immediate antecedent of actual turnover. Early models of employee turnover focused on the constructs of job satisfaction and alternative job opportunities. Later extensions to these models included issues of organisational commitment, ‘shocks’ to the system and the importance of workplace relationships. Other models discuss issues of ‘non-work’ influences such as family attachments and conflicts between work and family roles. As well as the nature of the work environment, concepts of individual differences such as personality and psychological capital are identified. Work engagement has been identified as a positive indicator of occupational well-being that predicts reduced ITLO and ITLP, while burnout is the result of chronic stressors and predicts greater ITLO and ITLP. The chapter now looks in more detail at the JD-R model employed to guide this study, before exploring the nursing-specific literature in terms of turnover within nursing, models of nursing turnover, and finally the determinants of nursing turnover.

3.10 The job demands-resources model

At the heart of the JD-R model (Figure 3-1) lies the assumption that, whereas every occupation may have its own specific risk factors associated with job stress, these factors can be classified into two general categories (i.e. job demands and job resources) (Bakker, Demerouti, De Boer, et al., 2003; Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). These two factors constitute an overarching model that may be applied to various occupational settings, irrespective of the particular demands and resources involved. Job demands refer to those “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs” (Bakker & Demerouti, 2007, p. 312). Examples of these costs are high work pressure, an unfavourable physical environment and emotionally demanding interactions with clients.

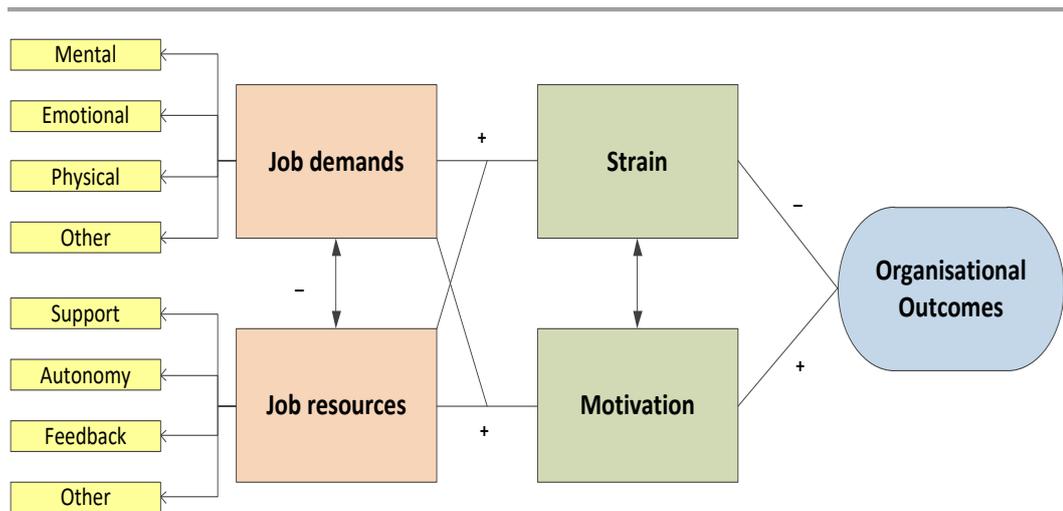


Figure 3-1: The Job Demands-Resources Model
(Bakker & Demerouti, 2007, p.313)

Although job demands are not necessarily negative, they may turn into job stressors when meeting those demands requires high effort from which the employee has not been able to adequately recover (Meijman & Mulder, 1998). Job resources refer to those “physical, psychological, social, or organizational aspects of the job that are either/or: functional in achieving work goals; reduce job demands and the associated physiological and psychological costs; and stimulate personal growth, learning and development” (Bakker & Demerouti, 2007, p. 312). Job resources may be located at the level of the organisation (e.g. career opportunities), the interpersonal and social relations (e.g. supervisor and co-worker support), the organisation of work (e.g. participation in decision making) and at the level of the task (e.g. task significance, autonomy and performance feedback).

The two most often studied negative and positive outcomes in the JD-R model are strain/burnout and motivation/work engagement, with burnout defined as a syndrome of exhaustion and cynicism (Maslach et al., 2001; Schaufeli & Taris, 2005) and work engagement defined as a positive work-related state of mind that is characterised by vigour, dedication and absorption (Bakker & Schaufeli, 2008; Schaufeli & Salanova, 2007). The JD-R model proposes that two-different underlying psychological processes play a role in the development of burnout and motivation. The first process is a health impairment process, in which poorly designed jobs or

chronic job demands (e.g. work overload, emotional demands) exhaust employees' mental and physical resources which may therefore lead to depletion of energy (i.e. a state of exhaustion) and to health problems (Demerouti, Bakker, Nachreiner, et al., 2001; Leiter, 1993).

The second process is motivational in nature, whereby it is assumed that job resources have motivational potential which can lead to high work engagement, low cynicism and excellent performance. Job resources may play either an intrinsic motivational role because they foster employees' growth, learning and development, or they may play an extrinsic motivational role because they are instrumental in achieving work goals (Bakker & Demerouti, 2007). In the case of intrinsic motivation, job resources may fulfil basic human needs, such as the needs for autonomy, relatedness and competence as postulated in self-determination theory (Deci & Ryan, 2000; Ryan & Frederick, 1997). For instance, helpful feedback fosters learning, thereby increasing job competence, whereas decision latitude and social support satisfy the needs for autonomy and the need to belong.

Job resources may also play an extrinsic motivational role, because, according to Meijman and Mulder's effort-recovery model, work environments that offer many resources foster the willingness to dedicate one's efforts and abilities to the work task (Meijman & Mulder, 1998). This increases the likelihood that the task will be completed successfully and that the work goal will be attained. For instance, supportive colleagues and feedback from one's supervisor increase the likelihood of being successful in achieving one's work goals (Schaufeli, Bakker, & Van Rhenen, 2009). The JD-R model proposes that the interaction between job demands and job resources is important for the development of job strain and motivation. It suggests that job resources may buffer the impact of job demands on job strain, including burnout (Bakker, Demerouti, Taris, et al., 2003). This assumption about the impact of job resources is consistent with Karasek's the demand-control model, but expands it by claiming that several different job resources can play the role of buffer for several different job demands (Karasek, 1979, 1998). A study of Australian RNs, for example, found that work-related social support mechanisms were found to moderate the negative consequences of administrative resourcing stressors on nursing job satisfaction (Teo, Yeung, & Chang, 2012). Which job demands and resources play a

role in an organisation depends upon the specific job characteristics involved (Bakker & Demerouti, 2007).

In addition to a direct positive effect of job resources on engagement, an indirect negative effect is also assumed; when job resources are available they are likely to be associated with engagement, whereas when job resources are lacking they are likely to be associated with burnout and in turn with poor engagement (Hakanen, Bakker, & Schaufeli, 2006; Schaufeli & Bakker, 2004). Burnout and engagement are each other's opposites (Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006). High burnout levels—either because of high demands or because of lacking resources – are associated with low levels of engagement.

3.11 Evidence for the job demands-resources model

Bakker, Demerouti, and Schaufeli (2003) applied the JD-R model to call centre employees of a Dutch telecom company and investigated its predictive validity for self-reported absenteeism and turnover intentions. Their results showed that job demands (e.g. work pressure and emotional demands) were the most important predictors of health problems, which, in turn, were related to sickness absence. Job resources (e.g. social support and supervisory coaching) predicted dedication and organisational commitment, which, in turn, led to decreased turnover intentions. Hakanen et al. (2006) found comparable results in their study among Finnish teachers, where burnout mediated the effect of job demands on ill-health while work engagement mediated the effect of job resources on organisational commitment.

The JD-R model was used by Bakker, Demerouti, and Verbeke (2004) to examine the relationship between job characteristics, burnout and other ratings of performance. They found that job demands (e.g. work pressure and emotional demands) were the most important antecedents of the exhaustion component of burnout, which, in turn, predicted decreased in-role performance. In contrast, job resources (e.g. autonomy and social support) predicted improved role performance, through their relationship with engagement. Another study used the JD-R model to examine the role of burnout in the relationship between stress factors related to RN work and their personal environment and how this affects ITLP (Jourdain & Chenevert, 2010). It found that

demands are the most important determinants of emotional exhaustion and indirectly induce depersonalisation (feelings of insensitivity and impersonal responses toward clients) via emotional exhaustion (feelings of being emotionally drained and exhausted either physically or cognitively by one's work), whereas (lack of) resources mainly predicts depersonalisation. The study suggested that emotional exhaustion and depersonalisation can result in psychosomatic complaints and lowered professional commitment, which is associated with ITLP. It concluded that a dual strategy is needed to retain RNs within the profession: a decrease in job demands, coupled with an increase in available job resources. Taken together, their findings support the JD-R model's claim that job demands and job resources initiate two different psychological processes, which eventually affect important organisational outcomes such as employee turnover.

In conclusion, the JD-R model is a balanced approach to turnover that explains negative (burnout) as well as positive (work engagement) aspects of well-being by linking it to strain and motivational processes. Multiple studies have provided evidence for the dual pathways to employee well-being proposed by the JD-R model, showing that it can predict important employee outcomes, such as employee turnover (Bakker, Demerouti, & Schaufeli, 2003; Bakker et al., 2004; Hakanen et al., 2006; Jourdain & Chenevert, 2010).

3.12 Turnover within nursing

The next two sections identify a number of theories and models relating to nursing turnover, which are then synthesised and used as the research underpinning the study. Drawing from Siegrist's (1996) effort-reward imbalance model, the NEXT Survey of RNs in Europe included a study of whether RNs felt they had a balance between their efforts (high emotional, physical and quantitative demands) and rewards (pay, or financial reward; recognition and respect within a hierarchical system and public image, or esteem reward; and possibilities for development, career opportunities and job security, or status control reward) (Hasselhorn, Muller, & Tackenberg, 2005). The study found a strong association between effort-reward imbalance, poor health and intention to leave nursing. Distributive justice is the degree to which an employee's rewards are related to his or her perceived contributions to the organisation (D. K.

Boyle et al., 1999). The effort-reward imbalance model (Siegrist, 1996) emphasises the need for employees to feel they are being fairly rewarded for their effort, including rewards of pay, respect and career opportunities such as promotion prospects. While Frieters et al. (2007) found the impact of an increase in RNs' pay on retention rates was small, which implied that retention issues are unlikely to be eliminated through increased pay alone, many studies do suggest a strong relationship between pay and turnover (M. F. Chan, Luk, Leong, Yeung, & Van, 2009; Estryn-Behar et al., 2007; Lum, Kervin, Clark, Reid, & Sirola, 1998). Price and Mueller (1981) found that RNs with the highest pay were more likely to express an intent to stay, regardless of their level of job satisfaction.

Respect and recognition are intrinsic rewards associated with behavioural intention to stay (T. L. Cowden & Cummings, 2012). They refer to the extent to which RNs are acknowledged for their efforts, contribution to patient care and the achievement of organisational goals (Ellenbecker, Samia, Cushman, & Porell, 2007). Respect and recognition from supervisors increases RNs' job satisfaction (H. Lu, While, & Barriball, 2005) and is directly related to intention to stay (Tourangeau & Cranley, 2006; C. Wilson, 2006). Conversely, its absence is considered a contributing factor for intent to leave (Storey, Cheater, Ford, & Leese, 2009). Promotional opportunity is consistently cited as a determining variable in employee turnover (D. K. Boyle et al., 1999; Flinkman, Laine, Leino-Kilpi, Hasselhorn, & Salanterä, 2008; Hasselhorn, Muller, Tackenberg, et al., 2005; McCarthy et al., 2007; Price & Mueller, 1981). In their 2013 employment survey, the NZNO reported that 26 percent of RNs had changed their employment within the previous two years, citing promotion as a common reason for the job change.

In the USA, Forsyth and McKenzie (2006) compared the 'discontents' of contemporary RNs to those identified in a research study conducted 20 years prior. The comparison highlighted a historical lack of progress in nursing workplace reform between their original 1986 report and the 2006 study. Comments and findings from the study conducted 20 years earlier followed three common themes: conflicting expectations of RNs and managers, inability of the RN to provide the comprehensive care that they were expected to deliver and disillusionment of the workforce. The researchers found that current frustrations related to conflicting expectations of RNs and managers and

lack of opportunity to provide comprehensive care, whereas the earlier study reported frustrations related to lack of autonomy and to medical dominance. Forsyth and McKenzie concluded that contemporary RNs' discontents reflect intense personal frustration and underpin individual RNs' decisions to leave, or plans to leave, the workforce. They suggested that addressing RNs' discontents, supporting wider nursing involvement in the international policy arena and the politicisation of RNs worldwide may contribute to alleviating global nursing shortages.

An integrative review of RN intention to leave the profession in an attempt to synthesise findings across studies was conducted by Flinkman, Leino-Kilpi, and Salantera (2010). A number of variables influencing RNs' ITL the profession were identified, including demographic, work-related and individual-related variables. The common demographic characteristics among RNs planning to leave included being younger (Barron & West, 2005; Hasselhorn, Muller, Tackenberg, et al., 2005; Kuokkanen, Leino-Kilpi, & Katajisto, 2003), being more highly qualified (Barron & West, 2005; Hasselhorn, Muller, Tackenberg, et al., 2005) or being male (Barron & West, 2005; Hasselhorn, Muller, Tackenberg, et al., 2005; Hintsala, 2005). Work-related variables associated with greater ITL included low occupational commitment (C. Chang, Du, & Huang, 2006; Nogueras, 2006), low affective commitment (Laine, 2005) and lower professional commitment (K. Lu, Lin, Wu, Hsieh, & Chang, 2002).

The integrative review also found that low job satisfaction (Collins et al., 2000; Kuokkanen et al., 2003; K. Lu et al., 2002), dissatisfaction with salary or low pay (Barron & West, 2005; Collins et al., 2000) and few possibilities for development (Flinkman et al., 2008; Hasselhorn, Muller, Tackenberg, et al., 2005) contributed to greater ITL. Other variables associated with higher ITL were if RNs had experienced burnout (Collins et al., 2000; Hasselhorn, Muller, Tackenberg, et al., 2005; Laine, 2005), work-family conflict (Hasselhorn, Muller, Tackenberg, et al., 2005; M. Simon, Kuemmerling, Hasselhorn, & the NEXT-Study Group, 2004) or stress (Collins et al., 2000; Zeytinoglu et al., 2006), or had a family not dependent on an RN's income (Lynn & Redman, 2005; Zeytinoglu et al., 2006). The only study where actual leavers were followed up was the NEXT-Study, with leavers stating that 'too low demands' (having less autonomy and not feeling challenged), poor working conditions, as well as

financial and personal reasons were all factors that affected their decision to leave (Hasselhorn, Muller, Tackenberg, et al., 2005).

Perceived organisational support has been discussed as important to affective organisational commitment because an employee who feels more attached to an organisation will become more committed to it (Gutierrez, Candela, & Carver, 2012). The greater the extent to which perceived material and social needs are met, the more supportive the organisation is deemed to be (Fuller, Hester, Barnett, Frey, & Relyea, 2006). In their study of RNs, Gutierrez et al. (2012) demonstrated that perceived organisational support positively predicted RN organisational commitment. Ingersoll, Olsan, Drew-Cates, DeVinney, and Davies (2002) found that the most committed RNs (older than 50 years) were planning to leave in five years' time, although their turnover was related to plans for retirement. With newly graduated RNs, higher levels of organisational commitment or affective professional commitment after workplace exposure (approximately 6 months) were related to lower levels of intention to change profession (Parry, 2008).

Huntington et al. (2010) undertook a qualitative study with RNs from New Zealand, Australia and the United Kingdom, seeking their perspectives on practice in terms of workforce characteristics, work–life balance and their health. They found that the key issues affecting RNs were the organisation of nursing work, health effects, bullying behaviour in healthcare teams and a lack of support from management. A consistent response to these issues was RNs leaving, or planning to leave work, or reducing their hours of work. Shift work and rotating shifts were noted as considerable factors leading to burnout. It has been well documented that shift work negatively impacts on physical and mental health, sleep quality and quantity, job performance and psychological well-being (Costa, 1996; Harrington, 1994), as does rotating shift work (M. Chan, 2008). The provision of 24-hour care is a fundamental element of nursing work, however it is important that this is managed in ways that meet service delivery requirements while mitigating the detrimental effects for RNs (Huntington et al., 2010). This study reported that RNs had intense and demanding workloads, resulting in them feeling emotionally and physically exhausted and dissatisfied with their inability to provide a certain level of care.

Huntington et al. (2010) reported that RNs often experience a workplace culture of bullying and aggression and felt a lack of support from management. Bullying has negative effects on physical, emotional and psychological well-being and has harmful financial effects for organisations, associated with the delivery of compromised care and difficulties attracting and retaining staff (S. L. Johnson, 2009; Ventura-Madangeng & Wilson, 2009). Bullying most commonly takes the form of psychological harassment, involving verbal abuse, threats, intimidation, humiliation, excessive criticism, innuendo, exclusion, denial of access to opportunity, disinterest, discouragement and the withholding of information (Farrell, 1997; McMillan, 1995; Quine, 1999). A significant positive relationship between the amount of abuse RNs are subjected to by colleagues and patients and ITL was reported by Sofield and Salmond (2003). Likewise, Read and Lasinger (2013) reported that two types of stress (incivility and bullying) lead to negative work experiences, which may contribute to decreased job satisfaction and decreased retention. Their study of new graduate RNs in Ontario, Canada, reported high rates of being undervalued, blocked from learning opportunities, emotional neglect, being given too much responsibility without support, rude or humiliating comments and verbal threats. McKenna, Naumai, Poole and Coverdale (2002) reported that New Zealand new graduate RNs experienced 'horizontal violence' from fellow RNs across all clinical settings, resulting in absenteeism from work and ITLP.

C. Duffield et al. (2015) in an Australian study identified financial, health and social considerations as key factors that motivate RNs over 45 years old to leave the workforce prior to retirement or pension age. For older RNs, who choose to remain in the workforce, motivators included having satisfying work, flexible working hours and social interaction (Graham et al., 2014). The need for income was identified as the main reason for staying. Schluter, Turner, Huntington, Bain, and McClure (2011) conducted an e-cohort study of RNs and midwives from New Zealand and Australia about their work-life balance and health. They found that, in terms of work-life balance, job strain was high for many, with Australian participants reporting greater levels of job strain than their New Zealand counterparts. In both countries, co-worker and supervisor support was generally low and many perceived the effort outweighed the reward for the job. Lastly, over and above their professional duties, many participants from both countries provided care for children or other dependents

outside their employment. With respect to staying healthy, the number of usual sleep hours was less than seven for 35.2 percent, approximately one in 10 had a moderate or high risk of long-term alcohol intake and current depressive symptoms were reported for approximately 22 percent of participants. Lower back and neck troubles were common for most participants.

As noted in chapter 1, a study of nursing turnover in New Zealand between 2004 and 2006 found an average turnover rate of 44.3 percent per annum ((North et al., 2013). New graduate RNs substantially contributed to both staffing and turnover. In fact, North, Leung, and Lee (2014b) found that between 2005 and 2010, 26 percent of new graduates had separated from the New Zealand nursing workforce within five years, 18 percent in the first year. Canadian research indicated that younger RNs (those born since 1965) have lower job satisfaction and larger proportions of burnout than older cohorts (Widger et al., 2008; B. Wilson, Squires, Widger, Cranley, & Tourangeau, 2008). A study by Leiter et al. (2010) concluded that younger Canadian RNs (born between 1961 and 1981) reported more negative experiences than older RNs on all measures of burnout, turnover intention, physical symptoms, supervisor incivility, co-worker incivility and team civility.

Reasons new graduates leave their first positions include relocation to other cities or countries (Christine T. Kovner et al., 2007), role transition difficulties (Fink & Krugman, 2008), job dissatisfaction (Beecroft, Dorey, & Wenten, 2008; L. J. Hayes et al., 2006), job stress associated with patient acuity (Bowles & Candela, 2005), perceptions of unsafe staffing levels and patient care (Bowles & Candela, 2005; Fink & Krugman, 2008) and desire for change and better job opportunities (Lavoie-Tremblay, O'Brien-Pallas, Ge Linas, Desforges, & Marchionni, 2008). Retaining new graduate RNs is critical to nursing workforce sustainability, with research showing that if an RN is still employed in a hospital setting five years after graduation, they tend to remain active in the health industry (Spetz, Rickles, Chapman, & Ong, 2008). In the New Zealand study, North et al. (2013) found two staffing practices that contributed to costs of turnover: the flexible use of nursing resources (staffing units below budgeted levels and reliance on temporary cover); and the reliance on new graduates and international recruitment to fill vacancies. The study found that experienced RNs who left the participating units were being replaced largely by RNs with less experience

in nursing (new graduates) or those who were unfamiliar with the New Zealand context of nursing (overseas trained RNs), which resulted in an increase in costs from increased turnover and increased adverse patient events.

A number of negative societal perceptions of nursing relate to gendered stereotyping, subordination to doctors, low academic standards, limited career opportunities and poor pay and conditions; how these perceptions may affect levels of recruitment into nursing has been explored (Takase, Kershaw, & Burt, 2002). A study in the UK on the perceptions of nursing as a career among young people in schools and colleges, for example, found that nursing was seen as having limited career opportunities with a ceiling to seniority and autonomy (Hemsley-Brown & Foskett, 1999). When asked what sort of people become RNs, young people were unlikely to mention qualifications or achievements, instead concentrating on stereotypically feminine personality traits including 'caring' and 'kind.' Many also described nursing as unattractive due to the physical demands of the job, without acknowledging any intellectually challenging aspects. A study of Australian RNs by Takase, Maude & Manias (2006) found that RNs were viewed by others as feminine and caring professionals, but they were not recognised as leaders or professionals who were independent in their practice. A literature review by Hoeve, Jansen, and Roodbol (2014) concluded that the public was not always aware of the qualifications RNs needed for their profession and that the public image of nursing was affected by the invisibility of RNs and the way they presented themselves. They suggested that RNs needed to work harder to communicate both their professionalism and their contribution to the healthcare system to the public.

In their 2013 employment survey, the New Zealand Nurses Organisation (NZNO) reported that the nursing workforce, in common with the workforce as a whole, had responded to uncertainty in general employment by working extra shifts and changing employment less frequently than two years earlier (New Zealand Nurses Organisation, 2013). Many RNs had experienced significant restructuring in their main employment, such as reductions of senior nursing leadership positions, changes to skill mix, regionalisation and privatisation of specialist services and mergers of general practices. The processes involved had severely impacted on morale, damaging feelings about their employer and leading to 43 percent of those affected questioning their nursing

future. Thirty percent of RNs had worked for their current employers for more than 10 years, while twenty-six percent had changed their employment within the previous two years. While gaining new skills or a promotion were frequently cited as reasons for the job change, dissatisfaction, stress and workload were also commonly chosen. Nearly one in five RNs were job hunting, with half of those looking to nurse outside New Zealand or leave nursing altogether.

However, this survey (New Zealand Nurses Organisation, 2013) also found that resilience and professionalism and a love of nursing were high. The RNs were most positive about the quality of care they deliver, nursing as a career, job security and job satisfaction. However, while many RNs said that they love their job and reported enjoying working with great colleagues and managers, many also expressed concerns about the state of nursing. Over half of all respondents were dissatisfied with their pay rates, especially in comparison with other professionals and nursing wages in Australia. The salaries of RNs were reported as making a significant contribution to the household budget, with around two thirds contributing half or more than half of all their income to families. Perceptions of the damaging nature of shift work were common, especially for older RNs. There was evidence of poor rostering practices contributing significantly to lack of satisfaction with work hours. Fewer than half of all RNs working in a clinical area felt there were usually enough RNs to provide safe care. Patient load and acuity were cited as having risen. The RNs were concerned about their access to training, career progression, choice of hours and the extent of bullying. They were most concerned about workload and pay, especially in comparison with other professionals.

3.13 Models of nursing turnover

Turnover among RNs has negative economic consequences, including lost productivity, decreased efficiency and lost human capital for work units and hospitals (Hatch & Dyer, 2004; Jones, 2005). In addition to the economic costs, high levels of job dissatisfaction and turnover among RNs threaten the quality of care and system performance (L. J. Hayes et al., 2006; Stone et al., 2007). Several theoretical frameworks have been developed to help explain the motivations behind RN intention to leave nursing.

The causal turnover model by Price and Mueller (1981) is the dominant theoretical perspective used to understand the voluntary turnover of RNs in the nursing-specific research literature (L. J. Hayes et al., 2006; Irvine & Evans, 1995; Tai, Bame, & Robinson, 1998). This model and its variants follow in the tradition established by March and Simon (1958), who viewed voluntary turnover as a rational linear process by which an individual's decision to leave their current position was based on job dissatisfaction and the availability of suitable employment alternatives (Holtom et al., 2008; T. W. Lee & Mitchell, 1994).

Price and Mueller's model integrated 11 determinants identified in prior studies drawn from economics, psychology and sociology that were associated with variation in voluntary employee turnover (Holtom et al., 2008; Irvine & Evans, 1995). The determining variables were opportunity (availability of job alternatives); routinisation (degree to which a job is repetitive); participation (degree of power over job); instrumental communication (from organisation to employee); integration (having friends at work); pay (in relation to years of service); distributive justice (degree to which rewards reflect efforts); promotional opportunity; and professionalism (dedication to standards of performance). The major theoretical breakthrough of this model was the hypothesised moderating effect of organisational commitment on intent to leave and voluntary turnover. Distal predictors in the causal model include demographic characteristics, the nature of the job and perceptions of fair treatment at work. The first-stage predictors characterising the nature of the work and work environment are hypothesised to influence job satisfaction, which affects an individual's commitment to the organisation. The extent to which an individual is satisfied with his or her job and committed to the organisation affects thoughts of leaving and, ultimately, quitting.

Curry, Wakefield, Price, Mueller, and McCloskey (1985) sought to refine Price and Mueller's (1981) model by adding the determinant variables of centralisation, role overload and work-unit size to assess their effects on the moderating variables of job satisfaction, organisational commitment and ITL. A sociological approach was taken by Alexander and colleagues by conceptualising job satisfaction and actual voluntary turnover as an organisational-level phenomenon and they conducted a series of studies

in the US examining how RNs' power, status and autonomy within the organisation influence job satisfaction and turnover (Alexander, 1988; Alexander et al., 1998). Lake (1998) integrated the profession-specific variables of burnout and autonomy as predictors of RNs' intentions to leave. The Brewer–Kovner turnover model (2009) emphasises the economic nature of workforce participation by including a set of market-level and household-level variables to predict newly licensed RNs' intentions to stay at their jobs. The model extends understanding of how job opportunities, household income and family responsibilities mix with experiences in the work environment to affect new RNs' intentions to stay in or leave their jobs.

Boyle, Bott, Hansen, Woods and Taunton (1999) in their 'Conceptual Model of Intent to Stay' postulated that four sets of predictor variables explained an RN's intention to stay, including the characteristics of manager, organisation, work and the RN's own characteristics. Manager characteristics include power, influence and leadership style. Organisational characteristics include distributive justice, promotional opportunity and control over practice, as well as the unit characteristics of staffing and workload. The characteristics of RNs include age, education, tenure expectations, years in position, hospital and profession and marital status. Work characteristics include autonomy, instrumental communication, work group cohesion and routinisation. Intervening variables between the manager, organisation, RN and work characteristics are job satisfaction, job stress and organisational commitment. Study outcomes of Boyle et al.'s model explained 52 percent of the variance in intention to stay among intensive-care RNs. The study variables that were found to contribute directly to intention to stay were manager power and influence over work coordination, opportunity elsewhere, promotional opportunity and RN satisfaction. Manager characteristics alone accounted for 12 percent of the variance in intention to stay.

Reflections on the determinants of voluntary turnover based on the empirical research of Price, Mueller and colleagues was offered by Price (2001). This article included consideration of kinship responsibility, which is the existence of obligations towards relatives living in the community, such as children and older parents. It is believed that kinship obligations reduce turnover because the obligations are most easily fulfilled by remaining in the current employment (Price, 2001). Price suggested that in addition to kinship responsibility, two other variables worthy of investigation included the extent

to which the organisation was responsive to kinship concerns and the extent to which a husband and wife had careers. An employer, for example, can demonstrate kinship responsiveness by providing childcare facilities, flexible working hours and paid leave when a child is born (Houkamau & Boxall, 2011; Price, 2001). A career is considered to be different from paid work in that it includes an expectation of remaining in a line of work for many years and is not characterised as a job obtained mostly to earn income. An employee who considers their work as a career may be less likely to leave the profession (Price, 2001).

The 'Determinants of Nurse Intention to Remain Employed' theoretical model was developed by Tourangeau and Cranley (2006), building on the D. K. Boyle et al. (1999) model and relevant findings from the literature. They proposed that 'job satisfaction, manager ability and support, organisational commitment, burnout, work group cohesion and collaboration' and 'personal characteristics of RNs' were predictors of RNs' intent to remain employed. Their study found that organisational commitment, job satisfaction, work group cohesion and collaboration and age influenced an RN's intention to remain employed and explained 34 percent of the variance in intention to stay. However, unlike D. K. Boyle et al. (1999), manager ability and support and burnout did not have a direct relationship with intention to stay.

McCarthy, Tyrrell and Lehane (2007) developed a conceptual framework based on findings from the literature and their research on RNs in the Republic of Ireland. Individual factors in the process that were investigated included age, educational attainment, nursing experience, marital status and family or kinship responsibilities, while organisational factors focused on decision making, promotional opportunities, job status and RNs perceptions of distributive justice. RNs were also asked about their perceptions regarding the current job market and to rate the quality of nursing care in their health-care setting. Results for individual and organisational factors showed that kinship responsibilities and job satisfaction were both statistically significant predictors of RNs' intent to stay or leave positions. Specifically, RNs who had no kinship responsibilities were more likely to leave than those who had such responsibilities. In addition, RNs with high levels of job satisfaction were more likely to show an intention to stay in their current employment than those with reporting low job satisfaction.

In a study examining potential predictors of RNs' ITL the nursing profession in the Netherlands, van der Heijden, van Dam and Hasselhorn (2009) proposed a model including the variables of social support from colleagues, social support from supervisor, leadership quality and interference between the realms of work and home. They found that an unsupportive work environment, low leadership quality and high work-to-home interference resulted in lower job satisfaction, which, in turn, predicted RNs' ITL the profession one year afterwards. Work-to-home interference showed an additional, direct relationship with occupational turnover intentions.

A theoretical model of RNs' intentions to stay in their current positions based on two systematic reviews of the literature was developed by T. L. Cowden and Cummings (2012). This model includes the characteristics of managerial style, including leadership, praise and recognition, shared decision-making and supervisor support; the characteristics of organisation, including career development, staffing and time to nurse; the characteristics of work, including abuse, autonomy and work group cohesion; and the characteristics of the RN, including age, education level, position preference, tenure and work status. They stated their model extends previous models by including RNs' affective and cognitive responses to work and their effects on RNs' intent to stay. The concepts of desire to stay, job satisfaction, joy at work and moral distress are included in the model in an attempt to capture the emotional response of RNs to their work environments. Further to this, as much as 30 percent of the variance explained in job satisfaction surveys is a function of personality, something an employer can do little to change (Agho, 1993).

The construct of 'psychological capital' was developed from the positive psychological constructs of self-efficacy, hope, resilience and optimism (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Luthans, & Luthans, 2004). This has been defined as "an individual's positive psychological state of development and is characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans, Avolio, et al., 2007, p. 3). A study in China looked at the relationship between

psychological capital and RNs' job embeddedness and performance (Sun, Zhao, Yang, & Fan, 2012). Results showed a strong relationship between the self-reported psychological capital, job embeddedness and performance of the RNs, suggesting that improving the individual accumulated psychological state of RNs will have a positive impact on their retention intention and job performance. In New Zealand, Nurse Practitioners demonstrated a belief in their personal effectiveness consistent with self-efficacy (Gardner, Hase, Gardner, Dunn, & Carryer, 2008).

A 2014 retention model of RNs in the USA looked at the effects of stress, economic factors, altruism and value congruence on job satisfaction and ITL the job and the profession (Dotson, Dinesh, Cazier, & Spaulding, 2014). Results confirmed the importance of stress and salaries and underscored the impact of both altruism and value congruence. Just as the job embeddedness model (Mitchell et al., 2001) recognises job fit as a substantial factor in retention, many RNs choose nursing because of the opportunity to help others, particularly those in vulnerable positions. A sense of altruism in the nursing environment can balance possible negative effects of economic factors and stress. The concept of value congruence is referred to by the unfolding model of turnover as "image violation," and this can lead to another type of fit (T. W. Lee & Mitchell, 1994). Value congruence refers to how the RN's values fit with those of the employer. One difficulty often faced by RNs in the hospital environment is the perceived lack of congruence between the intent of nursing (to care for patient well-being) and the need for tight management of costs and efficiencies by managers (Dotson et al., 2014). However, if an RN feels that they fit in the organisation, they are more likely to be satisfied with their job and when the RN is not satisfied with their job, a strong sense of fit with organisational values would encourage the RN to stay in their current position.

3.14 Research underpinning this study

3.14.1 Synthesising previous research

The literature on determinants of nursing turnover is vast. This study incorporates the many variables identified in previous studies and models of turnover. For example, ITLO and ITLP increases with greater levels of job burnout and stress (e.g. Hasselhorn, Muller, Tackenberg, et al., 2005; Zeytinoglu et al., 2006); low job

satisfaction (e.g. D. K. Boyle et al., 1999; McCarthy et al., 2007; Tourangeau & Cranley, 2006); low commitment to the organisation and occupation (e.g. Gutierrez et al., 2012; Parry, 2008; Price, 2001) and low work engagement (Maslach et al., 2001; Schaufeli & Bakker, 2004).

Workload is a common work characteristic affecting RN retention (e.g. Huntington et al., 2010; New Zealand Nurses Organisation, 2013). For RNs, this is compounded by shift work (Huntington et al., 2010; New Zealand Nurses Organisation, 2013); staffing levels (e.g. T. L. Cowden & Cummings, 2012; New Zealand Nurses Organisation, 2013); skill mix (New Zealand Nurses Organisation, 2013); patient acuity (New Zealand Nurses Organisation, 2013); and the ability to provide comprehensive care (Forsyth & Mckenzie, 2006; Huntington et al., 2010).

Other common characteristics affecting retention are alternative employment opportunities (e.g. D. K. Boyle et al., 1999; Price & Mueller, 1981); rewards in relation to efforts, such as pay (e.g. Barron & West, 2005; Graham et al., 2014; Hasselhorn, Muller, & Tackenberg, 2005); rewards such as praise and recognition and public image (T. L. Cowden & Cummings, 2012; Hasselhorn, Muller, & Tackenberg, 2005); and opportunity for promotion and professional development (e.g. Hasselhorn, Muller, Tackenberg, et al., 2005; New Zealand Nurses Organisation, 2013). Other predictors of turnover include low supervisor support (e.g. D. K. Boyle et al., 1999; T. L. Cowden & Cummings, 2012; van der Heijden et al., 2009); low colleague support (e.g. Price & Mueller, 1981; Schluter et al., 2011); low organisational support (Gutierrez et al., 2012); low autonomy (e.g. T. L. Cowden & Cummings, 2012; Price & Mueller, 1981); and issues of bullying and personal harm (e.g. Huntington et al., 2010; New Zealand Nurses Organisation, 2013).

Employee characteristics increasing RN turnover include age, with younger RNs exhibiting lower levels of commitment to the organisation and profession than older RNs (e.g. Barron & West, 2005; North et al., 2014b; Tourangeau & Cranley, 2006) and older RNs nearing retirement age (e.g. C. Duffield et al., 2015; Graham et al., 2014). Other employee characteristics include being male (e.g. Hasselhorn, Muller, Tackenberg, et al., 2005; Hintsala, 2005); lower education levels (e.g. T. L. Cowden & Cummings, 2012; Hasselhorn, Muller, Tackenberg, et al., 2005); lower tenure (e.g. D.

K. Boyle et al., 1999; T. L. Cowden & Cummings, 2012); and less kinship responsibilities (e.g. McCarthy et al., 2007; Price, 2001).

Intention to leave decreases with increased career orientation (Price, 2001) as well as greater RN contribution to family income (e.g. New Zealand Nurses Organisation, 2013; Zeytinoglu et al., 2006). Finally, important employee characteristics that are predictors of RN turnover include greater work-to-home interference (e.g. Hasselhorn, Muller, Tackenberg, et al., 2005; van der Heijden et al., 2009); poorer health of RNs (Schluter et al., 2011); lower psychological capital (Sun et al., 2012); lower value congruence (Dotson et al., 2014); and having a poor image of nursing (Hoeve et al., 2014; Takase et al., 2006).

3.14.2 What new research is needed

Despite the substantial amount of useful prior work on turnover among RNs, our understanding of the causal mechanisms explaining why RNs voluntarily leave their jobs remains limited (Gilmartin, 2013). One key reason for relatively weak results found in prior empirical studies of voluntary turnover among RNs may be that the conceptual models developed to account for the causes of turnover are not as strong as they could be (H. Chen, Chu, Wang, & Lin, 2008; Griffeth, Hom, & Gaertner, 2000; Irvine & Evans, 1995). Further to this, although there is a plethora of research on the career behaviours of RNs, the focus has mostly been on organisational turnover rather than occupational turnover. Therefore, current understanding of why RNs leave the profession is still limited (van der Heijden et al., 2009). More empirical research is needed on why RNs leave the profession because occupational turnover results in withdrawal from the specific health care institution as well as a loss of knowledge and skill in the nursing field.

3.14.3 What this study contributes

This study contributes new knowledge by reviewing an extensive variety of variables identified as key predictors of RN ITLO and ITLP to test which have the most statistical significance. It triangulates three types of analysis: thematic, regression and structural equation modelling. This helps to convey the most accurate representation of reality because the most persuasive evidence is revealed when propositions are confirmed by more than one process (Polit & Beck, 2012; Webb, Campbell, Schwartz,

& Sechrest, 1966). An exploration of how times of economic downturn affect the decisions RNs make around work is included. It provides new comprehensive models of nursing turnover grounded in the JD-R model design to highlight the role of burnout and engagement in nursing turnover. Finally, extensive recommendations based on findings are made to improve the retention of RNs in the profession.

3.15 Summary

In conclusion, literature on nursing turnover determinants and models of nursing turnover shows an extensive and complex list of variables affecting the decisions RNs make around whether to leave the organisation and profession. It is unlikely that simply training more RNs or relying on overseas-trained RNs will help to avoid a nursing workforce shortage. Instead, policy development needs to address the discontents of current RNs and consider the complex nature of a nursing work. This study contributes new knowledge and develops new comprehensive models of nursing turnover by including the key variables of RN turnover as identified by previous research. These variables guided the development of the research questions and hypotheses, which are presented in the next chapter.

Chapter 4: Research questions and hypotheses

The important thing is not to stop questioning.

Albert Einstein (1879-1955)

4.1 Introduction

This chapter presents the research questions and hypotheses of this study. These have been developed through the identification of key variables associated with RN turnover by the literature and qualitative data gathered in the first phase of the study. A framework is developed that presents the variables in two parts. Part I presents all the factors included in the survey that may act as predictors of RNs choosing to leave their current organisation or leave the nursing profession. Part II presents the study's hypotheses, which are based on factors that relate to the intrinsic psychological motivators of RNs and are constructs that have a theoretical underpinning related to the job demands-resources (JD-R) model. A new comprehensive model of nursing turnover is developed.

4.2 Developing the research framework

The first goal of this study was to review the literature on RN turnover, including organisational behaviour and human resource management theory and nursing-specific research. Next was to combine these findings with the qualitative data gathered from interviews with RNs, nurse leaders and stakeholders, in order to develop a comprehensive framework of nursing turnover. The full qualitative results are discussed in chapter 7. Step one was to distinguish which model would be used from the human resource management literature as the underlying structure for this study. The JD-R model (Bakker & Demerouti, 2007) was selected because it is a balanced approach that focuses on both negative (burnout) and positive (engagement) indicators of employee well-being, it incorporates many possible working conditions and it can be applied to a wide range of occupations. Step two was to extend the JD-R model by including the most pertinent variables of turnover as identified by the human resource

management and nursing-specific literature. Step three was to further confirm and extend the JD-R model to include variables associated with turnover as identified through the interview data gathered in first phase of this study.

The JD-R model proposed that sustained job demands may lead to burnout, therefore increasing intention to leave (ITL). Results from the literature review and qualitative data in the first phase of the study suggest that the following job demands should be included in this study:

- Quantitative demands;
- Emotional demands (challenges and hindrances);
- Personal harm (physical, emotional and verbal).

In addition to job demands, this study incorporates the category of personal demands. This is an important category to include due to increasing numbers of dual-career couples who are balancing work and home responsibilities, often leading to work-life interference (Luk & Shaffer, 2005). This study includes the variable:

- Work-life interference.

The JD-R model suggests that a lack of job resources will ultimately result in disengagement and ITL, while better resources lead to lower ITL. The job resources included in this study are:

- Supervisor support;
- Colleague support;
- Organisational support;
- Autonomy;
- Professional development;
- Reward (pay; respect and recognition).

While earlier studies using the JD-R model were restricted to work characteristics, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) extended the model to focus

on personal resources. They found that personal resources mediated the relationship between job resources and engagement/exhaustion and influenced the perception of job resources. The inclusion of personal resources is important because they can positively impact on work engagement during times of high work demands (Bakker & Demerouti, 2007; Bakker & Sanz-Vergel, 2013). The personal resources included in this study are:

- Psychological capital (self-efficacy);
- Value congruence.

The mediating variables of ‘burnout’ and ‘engagement’ are measured, as are the dependent variables of ‘intention to leave the organisation’ (ITLO); and ‘intention to leave profession’ (ITLP). To explore commitment to the organisation and profession, this study focuses on the concepts of work engagement, career orientation, ITLO and ITLP.

The variables listed above have strong theoretical underpinnings related to the categories of job demands, personal demands, job resources and personal resources, influencing the resulting pathway to ITLO and ITLP through the mediating variables of burnout and engagement. Further to this, multiple additional factors were identified by the literature and qualitative data as important independent variables influencing RN turnover. These include:

- Returned to profession in the last five years;
- Increased hours in the last five years;
- Partner’s income decreased in the last five years;
- Partner’s income likely to increase in coming years;
- Will decrease hours if finances improve;
- Will stop work if finances improve;
- Perception of labour market;
- Will leave/return to NZ to work;
- Job satisfaction;
- Personal harm;

- Family-friendly practices;
- Career orientation;
- Image of nursing;
- Difficulty returning to work;
- Demographics: age, gender, ethnicity, number of dependent children, number of dependent adults, education, contribution to total household income, health status, employment factors (DHB, setting, area of practice, job title), hours of work, reason for part-time hours and tenure.

The key variables of turnover as identified by the literature and qualitative data were used to develop the research framework below (Table 4-1 and Figure 4-1). Part I presents the regression analysis phase in which all factors included in the survey that may act as predictors of RNs choosing to leave their current organisation or leave the nursing profession are included. These variables were analysed with linear and multiple regression using the statistical package SPSS. Part II presents the structural equation modelling (SEM) phase in which the demands and resources that may have indirect links to ITLO and ITLP through the mediating variables of burnout and engagement are included. Some of these factors may also have direct links to ITLO and ITLP. These were analysed with SEM using the statistical package MPlus.

Table 4-1: Research framework Part I – Regression analysis phase

Variables included in the regression analysis only	Variables included in the regression and SEM analysis
<ul style="list-style-type: none"> • Returned to profession last five years • Increased hours last five years • Partner's income reduced last five years • Partner's income likely to increase • Will reduce hours if finances improve • Will stop work if finances improve • Perception of labour market • Will leave NZ to work • Will return to NZ to work • Difficulty returning to work if absence 1-5 years • Difficulty returning to work if absence more than 5 years • Personal harm • Career orientation • Image of nursing • Job satisfaction • Family-friendly practices • Demographics 	<ul style="list-style-type: none"> • Quantitative demands • Emotional demands • Work-life imbalance • Supervisor support • Colleague support • Organisational support • Autonomy • Professional development • Psychological capital (self-efficacy) • Value congruence • Burnout • Engagement • Reward

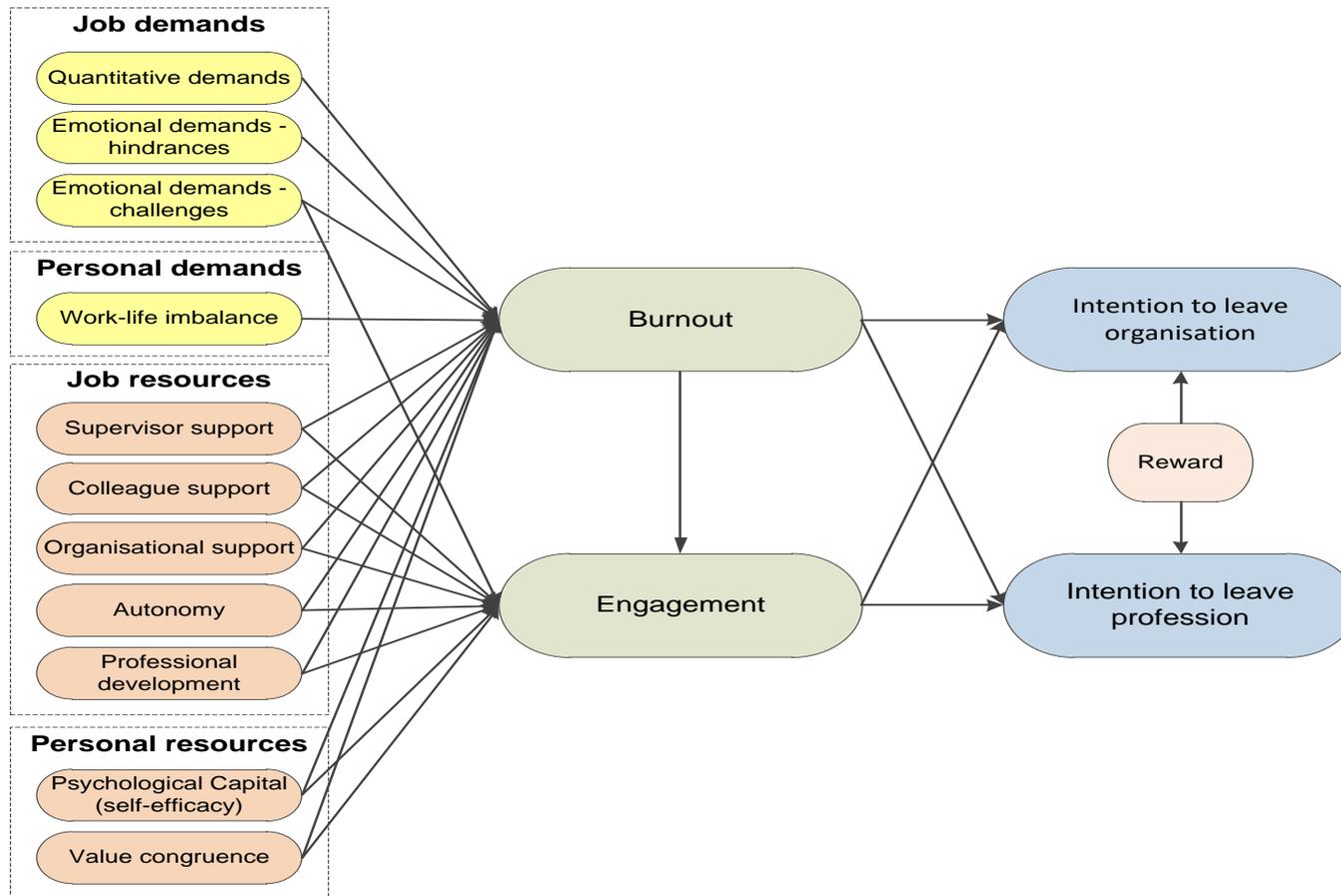


Figure 4-1: Research framework Part II – Structural equation modelling phase

4.3 Research questions

Nursing shortages are historically associated with an ageing workforce, increased demand for healthcare and job characteristics such as low pay, long hours and high-intensity work (Buchan & Aiken, 2008; Nursing Council of New Zealand, 2011). A culture of turnover seems to exist within the nursing profession in New Zealand, resulting in negative economic consequences, including lost productivity, decreased efficiency and lost human capital (S. J. Cavanagh & Coffin, 1992; North et al., 2013). The determinants of nursing turnover are complex and many. It is unlikely that simply training more RNs will help to avoid a shortage. Instead, policy development needs to address the discontents of current RNs and consider the complex nature of nursing work. By contributing to a clearer understanding of nursing retention, this study aims to help nursing planners and policy makers with decisions that will help them stabilise the future nursing workforce. The study does this by asking the following two questions:

1. What factors contribute to registered nurses wanting to change jobs within the nursing profession?
2. What factors contribute to registered nurses wanting to leave the nursing profession?

4.4 Variables related to intention to leave

Part I of the research framework presents those factors measured in the survey that may predict RN intention to change jobs within nursing or leave the nursing profession, but that are not included in the SEM model because they do not have the theoretical links to the JD-R model. These are investigated by descriptive, linear and multiple regression analysis. Part II presents the remaining variables included in the SEM model that are analysed in the regression analysis and the SEM analysis.

Demographics

Multiple demographic factors were included in the study. These included age, ethnicity, gender, education, kinship responsibility, health status, DHB working for, employment setting, area of practice, job title, hours of work, reason for part-time work and tenure.

Effects of the recession

Items to measure the effects of the recession included: whether participants had in the last five years either returned to work or increased their hours of work because they needed the money; whether the partners of participants had in the last five years had a reduction in income. Other factors were whether those partners were likely to have an increase in income in the coming years; and whether participants thought they would either decrease their hours of work or stop work altogether if their household income increases. These items are included in order to examine whether the effects of the recession contribute to RN ITLO and ITLP.

Returning to work

The issue of returning to work after an absence was raised in the qualitative interviews. Nursing remains a predominantly female workforce, with many taking career breaks for parental leave. To return to nursing practice in New Zealand after a five year absence, RNs are required to successfully complete a competence assessment programme. These can range in length from six to eight weeks, or extend to 12 weeks of clinical time if necessary (Nursing Council of New Zealand, 2012). RNs are also expected to maintain their professional development and recognition programme (PDRP) to demonstrate continued competence. A New Zealand study of 427 RNs reported resentment over the amount of personal time outside work hours that needed to be invested in portfolio development and that processes for demonstrating competency were excessively time consuming, unnecessarily “wordy” and insufficiently directly linked to measuring clinical competence (Carryer, Russell, & Budge, 2007). This was supported by a survey of RNs by the NZNO in 2011 that reported concern about the onerous nature of PDRP, particularly for those returning to work, as well as dissatisfaction about the Nursing Council’s processes (New Zealand Nurses Organisation, 2011). This variable is included in order to examine whether issues of returning to work contribute to RN ITLO and ITLP.

Family-friendly practices

A survey of RNs by the New Zealand Nurses Organisation (NZNO) (2011) found that large numbers work part-time or casual hours due to the need for work-life balance, child-care responsibilities and many RNs continuing to work part-time long

past usual retirement age. They concluded that more flexibility regarding hours and choice of work will continue to be important to retain these workers. In addition to flexibility of working hours, organisations can respond to kinship responsibilities by way of family-friendly practices, including being able to take time off when necessary for caregiving and extra parental leave provisions above the legal minimum requirement such as graduated return to work, job-sharing options or extra time off for parents who have recently had a child (Houkamau & Boxall, 2011). This variable is included in order to examine whether family-friendly practices reduce RN ITLO and ITLP.

Career orientation

Career orientation refers to the extent to which an employee views their line of work as one that they wish to pursue for many years, which leads to lower occupational turnover (Price, 2001). An item measuring career orientation was used to measure occupational commitment. This variable is included in order to examine whether career orientation reduces RN ITLP.

Image of nursing

There appears to be a lack of understanding about the complex work that RNs now do as their role continues to expand into that of an increasingly skilled and autonomous health professional. A poor public image of nursing may affect not only nursing recruitment, but also RN attitudes towards work (Takase et al., 2002). The results of a study of postgraduate nursing students in Western Australia (Takase et al., 2002) suggested that RN perception of the public stereotyping of nursing was related to the development of their self-concept, collective self-esteem and job satisfaction, all of which were associated with their engagement with other healthcare workers and their job performance. This variable is included in order to examine whether image of nursing contributes to RN ITLO and ITLP.

Personal harm

Bullying among RNs is a significant issue confronting the nursing profession. In addition to the occurrence of bullying between RNs, they may also experience emotional and verbal abuse from supervisors, other medical colleagues and patients, as well as the risk of physical abuse from patients (Huntington et al., 2010; McKenna

et al., 2002). This study uses the term ‘personal harm’ to encompass all these facets of bullying. This variable is included in order to examine whether personal harm contributes to RN ITLO and ITLP.

Reward

The variable of reward is included in the model as a control factor. The construct of reward is divided into pay (extrinsic reward), respect and recognition and opportunity for promotion (intrinsic reward) (T. L. Cowden & Cummings, 2012; McCarthy et al., 2007; Price & Mueller, 1981; Siegrist, 1996). This variable was included in order to examine whether rewards decrease RN ITLO and ITLP.

Job satisfaction

A strong correlation has been reported between job dissatisfaction and nursing turnover (Applebaum et al., 2010; D. K. Boyle et al., 1999; Ma et al., 2009; Tourangeau & Cranley, 2006; van der Heijden et al., 2009; Zurmehly et al., 2009). This variable was included in order to examine whether job satisfaction decreases RN ITLO and ITLP.

4.5 Hypotheses: Variables related to the job demands-resources model

Part II of the research framework presents the remaining variables that are analysed in the regression analysis of Part I, but that are also included in the SEM model: *demands* (independent variables that may have a mediated link to ITL though burnout) and *resources* (independent variables that may have a mediated link to ITL through engagement). Some demands and resources may also have direct links to ITL. The demands and resources are investigated by SEM in the second phase of the quantitative analysis.

4.5.1 Burnout and engagement

The two most often studied negative and positive outcomes in the JD-R model are strain/burnout and motivation/work engagement. As discussed in the literature review (section 3.9), the JD-R model was used as the basis of the proposition that there are two parallel processes involved in RN ITL. The first is an ‘energetical process’ where job demands lead to burnout which leads to high ITL (Hakanen et al., 2006). Burnout

is defined as a syndrome of exhaustion and cynicism (Maslach et al., 2001; Schaufeli & Taris, 2005). This leads to the following hypotheses:

- *Hypothesis 1a:* Burnout is positively related to intention to leave the organisation.
- *Hypothesis 1b:* Burnout is positively related to intention to leave the profession.

Burnout is seen as the antithesis of engagement because high levels of burnout are associated with low levels of engagement (Gonzalez-Roma et al., 2006). The following hypothesis is made:

- *Hypothesis 1c:* Burnout is negatively related to engagement.

The second process in the JD-R model is a ‘motivational process’ where job resources lead to engagement which leads to low ITL (Hakanen et al., 2006). Work engagement is defined as a positive work-related state of mind that is characterised by vigour, dedication and absorption (Bakker & Schaufeli, 2008; Schaufeli & Salanova, 2007). This leads to the following hypotheses:

- *Hypothesis 1d:* Engagement is negatively related to intention to leave the organisation.
- *Hypothesis 1e:* Engagement is negatively related to intention to leave the profession.

4.5.2 Job demands

Job demands refer to those “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs” (Bakker & Demerouti, 2007, p. 312).

Quantitative demands

According to the health impairment process, high job demands, which require sustained effort, may exhaust employees’ resources and lead to energy depletion and

health problems (Caplan, Cobb, French, Harrison, & Pinneau, 1975). Specific quantitative job demands, for example, have been repeatedly found to predict exhaustion among various occupational groups (Bakker, Demerouti, & Euwema, 2005; Bakker, Demerouti, & Schaufeli, 2003). Workload is made up of quantitative demands and has been defined as having too much work to do in the time available (Beehr, Walsh, & Taber, 1976). It is a concern frequently raised in organisational literature and has been found to have an adverse effect on employee retention in nursing (Alexander et al., 1998; D. K. Boyle et al., 1999; Huntington et al., 2010). Workload may also be defined as the degree to which the amount of work required interferes with the ability to meet patient needs and deliver high quality care (Alexander, Lichenstein, Oh, & Ullman, 1998) .

High volumes of workload may relate to psychological strain due to the uncertainty an employee may feel about whether they can get all their work done. The time stressors negatively impacts on the psychological health of RNs (Teo et al., 2012). Further to this, healthcare workers have specific psychological, physical and emotional demands due to the nature of the job. Nursing work often involves prolonged standing, lifting loads and attending to emergency situations which require the need to act quickly and often alone (Estryn-Behar, le Nézet, Laine, Pokorski, & Caillard, 2003). Quantitative demands may become stressors in situations which require high effort to sustain an expected performance level, consequently eliciting negative responses, including burnout. This leads to the following direct hypothesis:

- *Hypothesis 2a:* Greater quantitative demands are positively related to burnout.

According to the JD-R model, workload is a job demand that evokes a strain process that depletes employees' mental energy and thus may produce burnout (exhaustion and cynicism) (Schaufeli et al., 2009). This in turn may lead to absenteeism and turnover. Bakker and Sanz-Vergel (2013) used the JD-R model to look at how RNs stay engaged in their work and concluded that work pressure did indeed act as a hindrance demand for RNs. Due to this literature, the following mediating hypotheses are made:

- *Hypothesis 2b*: Greater quantitative demands are positively related to intention to leave the organisation through the mediating roles of burnout and engagement.
- *Hypothesis 2c*: Greater quantitative demands are positively related to intention to leave the profession through the mediating roles of burnout and engagement.

Emotional demands

This study includes the measurement of emotional demands, which have been divided into two different constructs: emotional demands that act as hindrance demands and emotional demands that act as challenge demands. In this study, the construct of emotional demands (hindrances) is assessed by exposure to aggressive and troublesome patients. Facing difficult patients may increase stress and burnout for RNs. The following direct hypothesis is made:

- *Hypothesis 3a*: Emotional demands (hindrances) are positively related to burnout.

High levels of emotional demands that result in high levels of emotional stress and burnout are predictive of ITL (Li et al., 2010; O'Brien-Pallas, Duffield, & Hayes, 2006). This leads to the following mediating hypotheses:

- *Hypothesis 3b*: Emotional demands (hindrances) are positively related to intention to leave the organisation through the mediating roles of burnout and engagement.
- *Hypothesis 3c*: Emotional demands (hindrances) are positively related to intention to leave the profession through the mediating roles of burnout and engagement.

Two items also asked how often RNs deal with illness and death. Given the nature of nursing work, facing illness and death may be what they expect from their work and this may satisfy a sense of altruism, therefore motivating them to work harder and become more engaged in their work (Bakker & Sanz-Vergel, 2013; McQueen, 2004). Challenge demands may be viewed by some workers as obstacles to overcome in order to learn and achieve, while hindrance demands may be viewed as unnecessarily thwarting personal growth and goal attainment (M. A. Cavanagh, Boswell, Roehling, & Boudreau, 2000). In their study of RNs in the Netherlands, Bakker and Sanz-Vergel (2013) found RNs felt more engaged in their work during weeks in which their

personal resources were high, but only if their emotional demands were high. Similarly, McQueen (2004) reported that RNs enjoy benefits from emotion work because they are satisfied with engaging with patients at a personal level, therefore increasing overall work engagement. With this literature in mind, the construct of emotional demands (challenges) assesses exposure to illness and death. The following direct hypotheses are put forward:

- *Hypothesis 3d:* Emotional demands (challenges) are negatively related to burnout.
- *Hypothesis 3e:* Emotional demands (challenges) are positively related to engagement.

Researchers examining emotional-labour among caring professions have argued that emotion may not necessarily be stressful, but may instead be engaging and create positive outcomes such as greater intention to stay (Brotheridge & Grandey, 2002). The following mediating hypotheses are made:

- *Hypothesis 3f:* Emotional demands (challenges) are negatively related to intention to leave the organisation through the mediating roles of burnout and engagement.
- *Hypothesis 3g:* Emotional demands (challenges) are negatively related to intention to leave the profession through the mediating roles of burnout and engagement.

4.5.3 Personal demands

Work-life interference

For many RNs there exists the need to combine work and family demands. Traditionally, men have devoted more time than women to paid employment, while women have devoted more time to child care and household tasks (Dean, 1992; Rodgers, 1992). Women have, however, become increasingly involved in paid employment, leading to many now having demanding roles in both the employment setting and home setting. Further to this, during times of economic recession, more RNs may have to return to work or increase their hours to bolster their household income, reducing the time available to fulfil their roles at home. Increasing life-expectancy has also meant that employed adults are increasingly responsible for caring for older members of the extended family, such as parents and grandparents (Michael R. Frone & Yardley, 1996). With the proliferation of dual-career couples, balancing

work and home responsibilities has become increasingly difficult, leading to an increased occurrence of work-life interference (Luk & Shaffer, 2005). A Norwegian study of various employee groups, including RNs, found that conflict between work and family may have profound longitudinal consequences for the individual and for the organisation, due to employees becoming burned out (Innstrand, Langballe, Espnes, Falkum, & Aasland, 2008). Therefore, the following direct hypothesis is:

- *Hypothesis 4a:* Greater work-life interference is positively related to burnout.

Research has found work-life interference is associated with work outcomes, such as decreased organisational commitment, increased turnover and stress reactions (Greenhaus, Collins, Singh, & Parasuraman, 1997; Kossek & Ozeki, 1998; Netemeyer, Boles, & McMurrian, 1996). In a study of Dutch RNs, van der Heijden, van Dam and Hasselhorn (2009) found that work-life interference increased RN ITLP. They concluded that the continuous interference of work with family responsibilities causes RNs to consider changing professions, irrespective of their satisfaction with the job and their attachment to the nursing profession. This leads to the following mediating hypotheses:

- *Hypothesis 4b:* Greater work-life interference is positively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 4c:* Greater work-life interference is positively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

4.5.4 Job resources

Job resources refer to those “physical, psychological, social, or organizational aspects of the job that are either/or: functional in achieving work goals; reduce job demands and the associated physiological and psychological costs; and stimulate personal growth, learning and development” (Bakker & Demerouti, 2007, p. 312). In contrast to the health impairment process, according to the motivational process, the availability of job resources leads to organisational commitment and work engagement

(Schaufeli & Bakker, 2004). Job resources, due to their (intrinsic and extrinsic) motivational potential, encourage employees to meet their goals. In turn, employees may become more committed to their job, because they derive fulfilment from it (Hackman & Oldham, 1980).

Supervisor support

Social support is a resource that is functional in achieving work goals and includes both the support of supervisors and colleagues. Social support is one of the most well-known situational variables that has been proposed as a buffer against job strain and burnout (Haines, Hurlbert, & Zimmer, 1991). The stress-buffering hypothesis states that social support protects employees from the pathological consequences of stressful experiences (S. Cohen & Wills, 1985). For instance, a high quality relationship with one's supervisor may alleviate the influence of job demands on job strain (Bakker & Demerouti, 2007).

Research on Australian RNs has shown that RNs who are experiencing resource shortages rely on work-related social support from colleagues and supervisors to reduce the negative consequences (Teo et al., 2012). This leads to better psychological health, higher job satisfaction and higher level of commitment towards their organisations. Employees perceive their supervisors as supportive when they consider them to show concern for their feelings and needs, to provide help, information and constructive feedback and they believe that they facilitate their further development (Langford, Bowsher, Maloney, & Lillis, 1997; Peeters, 1994). A study of public health RNs in New Zealand identified that leadership that supports good nursing practice involves supervisors who have good communication skills, encourage innovation, allow flexibility and recognise and acknowledge achievements (Hansen, Carryer, & Budge, 2007). Previous studies have found that supervisory support is an important predictor of work engagement for RNs (Hakanen et al., 2006; Llorens, Bakker, Schaufeli, & Salanova, 2006; Othman & Nasurdin, 2013). This research leads to the following direct hypotheses:

- *Hypothesis 5a:* Greater supervisor support is negatively related to burnout.
- *Hypothesis 5b:* Greater supervisor support is positively related to engagement.

Praising employees for good performance improves their motivation and engagement with work and encourages them to continue in the same direction (Hackman & Oldham, 1980). This is in line with the theory of Leader-Member Exchange which hypothesises that a good dyadic relationship between supervisor and employee results in employee job satisfaction and well-being, improved organisational commitment and better organisational outcomes (Gerstner & Day, 1997). An Australian study of RNs by Duffield, Roche, Blay & Stasa (2011) concluded that effective nursing unit managers who consult with staff and provide positive feedback are instrumental in increasing job satisfaction and satisfaction with the nursing profession. This leads to the following mediating hypotheses:

- *Hypothesis 5c:* Greater supervisor support is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 5d:* Greater supervisor support is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

Colleague support

In addition to feeling empowered through supervisor support, working in effective teams with dedicated colleagues contributes to RN satisfaction with work (Chenoweth, Merlyn, Jeon, Tait, & Duffield, 2013). Support from colleagues can help to get the work done on time and may alleviate the impact of work overload on strain (Van der Doef & Maes, 1999). Colleague support has been found to be positively associated with work engagement (Halbesleben, 2010; Schaufeli & Bakker, 2004). The following direct hypotheses are made:

- *Hypothesis 6a:* Greater colleague support is negatively related to burnout.
- *Hypothesis 6b:* Greater colleague support is positively related to engagement.

Colleague support may satisfy employees' needs to belong and enable them to identify with their work, which in turn fosters the willingness to dedicate efforts and abilities

to the work task, thus facilitating successful work performance (Siu et al., 2010). Research on RNs has shown that greater social colleague support results in higher levels of job satisfaction and commitment towards work (Teo et al., 2012). This leads to the following mediating hypotheses:

- *Hypothesis 6c:* Greater colleague support is negatively related to intention to leave the organisation through the mediating roles of burnout and engagement.
- *Hypothesis 6d:* Greater colleague support is negatively related to intention to leave the profession through the mediating roles of burnout and engagement.

Organisational support

Employees form a general perception concerning the degree to which the organisation they work for values their contributions and cares about their well-being (Eisenberger et al., 1986). A study of RNs in New Zealand and the United States found that organisational support was valued by RNs across hospital, home care and district nurse settings (Flynn, Carryer, & Budge, 2005). An Australian study of RNs working in aged-care facilities concluded that RNs are most positive when they feel valued and supported by their organisation and colleagues (Chenoweth et al., 2013).

Research on South African RNs found that a lack of organisational support contributed significantly to burnout (van der Colff & Rothmann, 2009). A key proposition of the JD–R model is that interactions between job demands and resources are important, such that resources like organisational support can mitigate the negative psychological effects stress and burnout. Therefore, high levels of organisational support may result in increased motivation and work engagement. Work engagement is, after all, the conceptual ‘opposite’ of burnout (Hallberg & Schaefer, 2006). Accordingly, the following direct hypotheses are made:

- *Hypothesis 7a:* Greater organisational support is negatively related to burnout.
- *Hypothesis 7b:* Greater organisational support is positively related to engagement.

Based on the norm of reciprocity, perceived organisational support strengthens affective commitment to the organisation and increases efforts made on its behalf (Eisenberger et al., 1986; Shore & Shore, 1995). Conversely, if the organisation is perceived to place little value on employees' contributions and well-being, organisational commitment decreases, performance of job activities lessens and employees decrease organisational involvement by being absent and likely start looking for alternative employment or early retirement (Eisenberger, Cummings, Armeli, & Lynch, 1997). This leads to the following mediating hypotheses:

- *Hypothesis 7c:* Greater organisational support is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 7d:* Greater organisational support is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

Autonomy

Autonomy is a work characteristic that may act as a buffer against work strain and burnout and has been defined as the extent to which aspects of the stressor are controllable by the person who must experience it (Kahn & Byosserie, 1992). It is also the degree to which the position allows or encourages individual decision-making in daily operational activities (D. K. Boyle et al., 1999). Having a sense of control over one's job creates the opportunity for the application of knowledge and skill (Morrison, Cordery, Girardi, & Payne, 2005). A study of RNs in New Zealand and the United States found that hospital-based, home care and district nurses all valued professional autonomy as an organisational trait that supports their practice (Flynn et al., 2005). Autonomy has been identified as a major motivator that alleviates burnout and increases engagement (Bakker & Demerouti, 2007; Hakanen et al., 2006; Taris, Schreurs, & van Iersel-van Silfhout, 2001). The following direct hypotheses are put forward:

- *Hypothesis 8a:* Greater autonomy is negatively related to burnout.
- *Hypothesis 8b:* Greater autonomy is positively related to engagement.

Many studies have identified autonomy as having an important relationship to RN job satisfaction and intention to stay (D. K. Boyle et al., 1999; Irvine & Evans, 1995; Kramer & Schmalenberg, 2003; Laschinger, Shamian, & Thomson, 2001; A.M. Rafferty, Ball, & Aiken, 2001). This leads to the following mediating hypotheses:

- *Hypothesis 8c:* Greater autonomy is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 8d:* Greater autonomy is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

Professional development

Professional development includes the opportunity for ongoing training and promotion and has long been identified as a key factor in RN job satisfaction and intention to stay (D. K. Boyle et al., 1999; Chenoweth et al., 2013; Price & Mueller, 1981). Studies (Bakker & Demerouti, 2007; Xanthopoulou et al., 2007; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009) have shown that opportunities for professional development relate positively to work engagement. Therefore, the following direct hypotheses are:

- *Hypothesis 9a:* Greater access to professional development is negatively related to burnout.
- *Hypothesis 9b:* Greater access to professional development is positively related to engagement.

LeVasseur et al. (2009) found that many RNs choose to leave their jobs due to lack of career advancement. In fact, dissatisfaction with professional development opportunities has been shown to have a stronger impact on RN turnover than workload or pay (Shields & Ward, 2001). This leads to the following mediating hypotheses:

- *Hypothesis 9c*: Greater access to professional development is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 9d*: Greater access to professional development is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

4.5.5 Personal resources

An important extension of the JD-R model is the inclusion of personal resources (Bakker & Demerouti, 2007). Personal resources are “aspects of the self that are generally linked to resiliency” and refer to “individuals’ sense of their ability to control and impact upon their environment” (Hobfoll, Johnson, Ennis, & Jackson, 2003, p. 632). Positive self-evaluations predict goal setting, motivation, performance and life satisfaction, because the higher an individual's personal resources, the more positive the person's self-regard and the more ‘goal self-concordance’ is expected to be experienced (Bakker & Sanz-Vergel, 2013). Personal resources can translate into work engagement and flourishing during weeks when employees have high challenge demands (Bakker & Sanz-Vergel, 2013).

Psychological capital

Psychological capital is a construct which defines an individual’s positive psychological state of development and is characterised by having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; making a positive attribution (optimism) about succeeding now and in the future; persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success (Luthans, Youssef, & Avolio, 2007a). Individuals with higher psychological capital tend to have a positive outlook, accept challenges, identify goals and respond well to adversity (Luthans et al., 2004). Individuals working in a resourceful work environment (e.g. have autonomy over their tasks) are likely to increase their beliefs in their capabilities (self-efficacy) (Hobfoll, 2002). Consequently, employees develop a positive self-regard, and in turn, experience goal self-concordance (Luthans & Youssef, 2007). Employees with goal self-concordance are intrinsically

motivated to pursue their goals that may lead to higher levels of work engagement and performance. Indeed, personal resources have been found to explain the transition from various job resources to work engagement (Xanthopoulou et al., 2007). This study focuses on self-efficacy dimension of psychological capital. The following direct hypotheses are made:

- *Hypothesis 10a:* Greater psychological capital (self-efficacy) is negatively related to burnout.
- *Hypothesis 10b:* Greater psychological capital (self-efficacy) is positively related to engagement.

Human resource strategies aimed at enhancing the components of employees' overall psychological capital can reduce their perceptions of the symptoms of stress, the impact of stress on intentions to quit and therefore limit subsequent turnover (Avey et al., 2009). A study of RNs found a strong relationship between self-reported psychological capital and performance and concluded that improving the individual accumulated psychological state of RNs will have a positive impact on their job performance and retention intention (Sun et al., 2012). Therefore, the following mediating hypotheses are put forward:

- *Hypothesis 10c:* Greater psychological capital (self-efficacy) is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 10d:* Greater psychological capital (self-efficacy) is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

Value congruence

Value conflicts are a central aspect of person/environment fit (Leiter, Jackson, & Shaughnessy, 2009). The extent to which work experience confirms employees' expectations about a job influences retention because employees are more likely to leave when they are disappointed (Wanous, Poland, Premack, & Davis, 1992). A lack of person/environment fit results in decreased positive affect at work, such as

satisfaction and commitment and increased negative affect, including exhaustion and anxiety (Leiter et al., 2009). Koyuncu, Burke, and Fiksenbaum (2006) examined potential antecedents and consequences of work engagement in a sample of women managers and professionals employed by a large Turkish bank. Results showed that value fit in the workplace was a significant predictor of work engagement. The following direct hypotheses are made:

- *Hypothesis 11a:* Greater perception of value congruence is negatively related to burnout.
- *Hypothesis 11b:* Greater perception of value congruence is positively related to engagement.

Many RNs choose nursing because of the opportunity to help others and a sense of altruism in the nursing environment can balance possible negative effects of economic factors and stress (Mitchell et al., 2001). For instance, an RN who is not satisfied with their pay and stress levels, may not have intentions to leave the job because it fulfils their sense of altruism. Often RNs may be faced with a perceived lack of congruence between the intent of nursing (to care for patient well-being) and the need for tight management of costs and efficiencies by managers. Those RNs who are more altruistic have higher levels of job satisfaction, while RNs whose values do not match with the organisation are more likely to have lower job satisfaction and higher ITL (Dotson et al., 2014). This leads to the following mediating hypotheses:

- *Hypothesis 11c:* Greater perception of value congruence is negatively related to intention to leave the organisation through the through the mediating roles of burnout and engagement.
- *Hypothesis 11d:* Greater perception of value congruence is negatively related to intention to leave the profession through the through the mediating roles of burnout and engagement.

4.6 Summary

In conclusion, part I of the framework addresses all the factors included in the survey that may act as predictors of RN choosing to leave their current organisation or leave

the nursing profession. Part II of the framework addresses the key factors of demands and resources that may have direct or mediated links to ITL through burnout and engagement and that are presented as hypotheses. These include job demands, such as quantitative demands and emotional demands; personal demands, such as work-life interference; job resources, such as supervisor support, colleague support, organisational support, autonomy and professional development; and personal resources such as psychological capital (self-efficacy) and value congruence. The next chapter discusses the methodology behind this study.

Chapter 5: Methodology

In order to talk about the nature of the universe and to discuss questions of whether it has a beginning or an end, you have to be clear about what a scientific theory is.

Hawking (1988)

5.1 Introduction

Methods refer to the detailed procedures of a study, while methodology has been described as a fundamental approach to research that connects research methodologies to particular philosophical frameworks (Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003). This chapter identifies the theoretical issues behind the choice of research methodology used in this thesis. The types of research used to develop and then implement the survey tool will be outlined: mixed-methods research, including its qualitative and quantitative paradigms. The philosophical framework of critical realism underpinning this study will be identified as a rationale for combining the different research paradigms of a mixed-methods approach. The theoretical framework of the job demands-resources (JD-R) model employed to guide the study design will also be addressed. Finally, the significance of researching registered nurses (RN) is discussed.

This study required the development of knowledge of what motivates RNs to work and what encourages them to increase, reduce or stop their working hours. It then aimed to generate evidence-based recommendations for organisational policy improvement and development. Due to the complex nature of the research study, no single research paradigm could satisfactorily deal with all the required methodological challenges. It was therefore necessary to combine the qualitative/interpretive paradigm with the quantitative/positivist paradigm, enabling the researcher to explore the complex psychosocial and emotional factors of RN perceptions of work and statistically analyse the data on a larger scale.

5.2 Research methodology paradigms

Since the beginning of ancient Western philosophy, debates have abounded concerning singular or universal truths or approaches to viewing the world (Socrates,

Plato) *vis-a-vis* multiple or relative truths (the Sophists), versus balances or mixtures of the extremes (Aristotle, Cicero, Sextus Empiricus) (R. B. Johnson, Onwuegbuzie, & Turner, 2007). These debates continue today in the different views of the three major approaches to social research. For more than a century, purists have advocated for either side of the quantitative and qualitative research paradigm debate. Quantitative purists align their assumptions with a positivist philosophy, that is, they believe that one reality exists and that social observations should be treated as entities just as scientists treat physical phenomena (R. B. Johnson & Onwuegbuzie, 2004). Positivism stands for objectivity, measurability, predictability and controllability. Quantitative purists maintain that the observer is separate from the entities that are being observed and that social science inquiry should be objective. In this view, time and context-free generalisations are desirable and achievable and the true causes of social scientific outcomes can be determined reliably and validly (R. B. Johnson & Onwuegbuzie, 2004; Nagel, 1986).

On the other hand, qualitative purists approach research from a critical, interpretivist, constructivist, or anti-positivist perspective. Non-positivism emphasises the understanding and interpretation of phenomena and seeks to make meaning rather than laws out of this process. Qualitative purists argue that there are multiple constructed realities and the knower and known cannot be separated because the subjective knower is the only source of reality (Guba, 1990). This leads to an approach that believes that time and context-free generalisations are undesirable and indeed impossible, as is the possibility of identifying true causes and effects. This critical approach to research seeks to integrate theory and practice so that people become aware of contradictions and disparities in their beliefs and social practices and become inspired to change them (Polit & Beck, 2012). Table 5-1 outlines the ontological, epistemological and axiological differences between the two purist paradigms.

Table 5-1: Differences between qualitative and quantitative methodology

(Onwuegbuzie & Leech, 2005)

Approach	Quantitative	Qualitative
Ontology	Single reality	Multiple realities
Epistemology	Researcher and researched remain separate	Researcher and researched are dependent on one another
Axiology	Value free	Research influenced by values of researcher

5.3 Qualitative research

Qualitative research seeks to understand people's subjective experiences, perceptions, thoughts, feelings and lived phenomena, usually within a naturally occurring setting (Schneider, Whitehead, Elliott, Lobiondo-Wood, & Haber, 2007). Raw data are typically obtained from open-ended questions during interviews with participants (Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003) and commonly audiotaped and then transcribed verbatim. The first phase of this study used qualitative research methods to develop the survey tool used to collect data for the regression and structural equation modelling analyses. Through an induction process of the combination of knowledge drawn from the literature, semi-structured interviews with participants and personal beliefs of the researcher, an investigation of meanings and perceptions was enabled. This allowed the theory of the survey tool to be developed incrementally while being informed by rich data. Interpretive analysis was undertaken using a general inductive approach, where codes and categories were gradually built from the extensive raw data, common themes developed and condensed into a summary format (R. M. Thomas, 2003).

Consistency was ensured in this study by measuring the extent to which the qualitative accounts accurately portrayed the social phenomena of turnover through the triangulation and inter-rater reliability of data coding (D. R. Thomas, 2006). This was achieved by asking another researcher to independently code some of the raw data that was then compared with the primary researcher's coding.

5.4 Quantitative research

Quantitative research is a controlled and formal process that attempts to objectively investigate phenomena that lend themselves to measurement and quantification (Polit & Beck, 2012). This involves deductive testing and verification of theories and hypotheses (Punch, 2005b). Typically, data are measured and described as categorical or numerical data and statistical procedures are used for analysis, which involves comparison of frequencies or measurements across participants or categories (Punch, 2005b; Tashakkori & Teddlie, 2003). There are two main types of quantitative research: the first involves experiments with random and non-random designs used to test the impact of a treatment; the second involves surveys or questionnaires, including cross-sectional and longitudinal studies that show trends, attitudes, or opinions (Creswell, 2003).

In the second phase of this study, the survey tool developed in the first phase was used to gain quantitative data on the motivations for and changes in working behaviours of RNs. This enabled deductive theory testing of the themes established in the initial qualitative phase, identifying key variables and a structured and replicable research approach on a larger number of participants. Participant characteristics were reported using means (defined as the average value, when all responses are added together and divided by the number of responses) and standard deviations (SD) (described as providing information regarding the spread of the responses, so that the larger the SD, the greater the variation of the responses and the less meaningful the mean value is). Next, regression analysis and structural equation modelling analysis was conducted.

5.5 Mixed-methods research

Many purists believe that quantitative and qualitative research methodologies are incompatible and impossible to combine. However, mixed-methods research is the third research paradigm that has evolved out of the purists' debate and works to synthesise the opposing perspectives. Many researchers are now rejecting an incompatibilist either/or approach to paradigm selection in favour of a pluralistic or compatible approach (R. B. Johnson & Onwuegbuzie, 2004). Campbell and Fiske (1959) referred to 'multiple operationalism' in which more than one method is used as part of a validation process that ensures that the explained variance is the result of the

underlying phenomenon and not of the method. This idea of multiple operationalism as a measurement and construct validation technique was extended further by Webb, Campbell, Schwartz and Sechrest (1966), who coined the term ‘triangulation.’ They surmised that the most persuasive evidence comes through a triangulation of measurement processes because propositions that are confirmed by two or more independent measurement processes can be interpreted with greater certainty. Denzin (1978) defined triangulation as “the combination of methodologies in the study of the same phenomenon” (p. 291). This is done in an attempt to converge on a more accurate representation of reality (Polit & Beck, 2012). It is based on the principle that a single method of data collection will not sufficiently answer a research question (Patton, 2002). Triangulation encourages more reflective analysis of the data, as well as being a means of testing the validity of an analysis. Further to this, respondent validation or stakeholder checks ensure the credibility of the data collected by checking its accuracy with those involved (Farmer, Robinson et al. 2006). To improve data reliability, this study employed the use of stakeholder analysis, which is discussed further in chapter 6. To further understand the advantages of a mixed-methods research design, it is necessary to distinguish the differences between quantitative and qualitative research.

Mixed-methods research is an approach to theoretical and practical knowledge that attempts to consider multiple viewpoints, perspectives, positions and standpoints, always including the standpoints of qualitative and quantitative research (R. B. Johnson et al., 2007). This third research paradigm offers a logical and practical alternative to the positivist/interpretivist debate of the purists. The logic of inquiry inherent in such a paradigm includes the use of induction (or discovery of patterns), deduction (testing of theories and hypotheses) and abduction (uncovering and relying on the best of a set of explanations for understanding one’s results). Mixed-methods research enables areas of inquiry to be enriched and the evidence base enhanced because each method used has its own advantages and disadvantages, allowing for the compensation of weaknesses while capitalising on the strengths of each method (Patton, 2002; Punch, 2005b). It is for these apparent benefits that the mixed-methods approach was selected for the current study. The sequential mixed-methods design uses qualitative and quantitative methods in consecutive strands, with subsequent strands and questions developing out of the earlier strands (Punch, 2005b). The collection of the qualitative

data helped to define the research topic and formulate the survey questions, while the quantitative data responded to those questions and delivered data on a larger scale that could then be more easily generalised to a larger population.

5.6 Philosophical framework

Nursing research addresses theoretical and practical problems that require the use of a wide range of scientific methods. In this way, nursing methodologically overlaps with biomedical and sociological disciplines. The use of methods drawn from both the natural and the social sciences raises several philosophically interesting issues. Nurse researchers will often confront phenomena that require the use of multiple different research methodologies. Mixed-methods research is still a relatively new methodological paradigm and the debates surrounding its philosophical underpinnings continue. Therefore, researchers need to carefully consider their rationale for using a combination of methods, as there is considerable opportunity for confusion (Creswell, D., & Ivankova, 2004).

There are three distinct standpoints with regard to using mixed-method approaches: a purist (positivist) position, a pragmatic (post-positivist) position and an anti-conflationist position (McEvoy, 2006). The purists argue that the paradigms of qualitative and quantitative research are so different they cannot be reconciled (Ford-Gilboe, Campbell, & Berman, 1995; Leininger, 1994), while the pragmatists believe that neither paradigm alone is sufficient to develop a complete analysis and so an effective combination of each methodology is attempted (R. B. Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003). In practice, applying a pragmatic approach may be challenging as researchers wrestle with methodological tensions that are difficult to resolve (Johnstone, 2004). Attempting to integrate positivist and interpretivist approaches may prove difficult due to incongruent data obtained via methods based on conflicting epistemological assumptions. The third anti-conflationist approach is underpinned by the philosophy of critical realism and is the philosophical framework underpinning this study.

The pragmatist's attempt to find a compromising middle ground between two problematic positions does not produce a less problematic position (Patomaki, 2000).

A critical realist philosophy attempts to move beyond these epistemological debates by incorporating more of a focus on ontological considerations and ‘reclaiming’ reality. In order to move forward one cannot simply take the middle ground, but must instead engage with and challenge the extremities of the debate and develop an understanding of their commonalities. From an ontological perspective, both the purists and the pragmatists share a common metaphysical structure, that is, what is considered real always bears the insignia of a human attribute or anthropocentric philosophy (Bhaskar, 1989; Patomaki, 2000).

Purists define the real in terms of the experienced, while many pragmatists define it in terms of language or discourse. Critical realism, however, understands that a world exists prior to the emergence of humanity and that social or natural materials exist prior to the human construction of reality assigned to them (Patomaki, 2000). Knowledge is a set of socially-constructed antecedent materials, resulting in different theories that interpret the same world in radically different ways. Critical realism is therefore committed to ontological realism (where there is a reality, which is structured and layered and independent of the mind), epistemological relativism (where beliefs are socially produced) and judgemental rationalism (that there are justifiable grounds for preferring one theory over another) (Patomaki, 2000).

Anti-conflationists argue that there are many approaches to research which cross the traditional quantitative–qualitative divide and that the differences between methods are not always as extreme as they are made out to be (McEvoy, 2006). They argue that a methodology should not be conflated with the technical aspects of a method because the same method can be used by researchers who come from different ontological and epistemological starting positions. Qualitative methods are often used in the preparatory stages of quantitative research, as in this study, and qualitative methods can be used to test theoretical hypotheses. The key difference between the methodological pragmatists and the anti-conflationists is that the anti-conflationists adopt a more principled approach when combining methods (McEvoy, 2006). For the anti-conflationists it is only appropriate to combine methods if a common ontological and epistemological position can be sustained. This third approach to mixed-methods research is compatible with all three of the purposes of methodological triangulation:

completeness, abductive inspiration and confirmation (Risjord, Dunbar, & Moloney, 2002; Risjord, Moloney, & Dunbar, 2001).

The completeness component of triangulation is achieved in this study when the qualitative findings in the first phase are further developed by the quantitative methods in the second phase. The methods complement each other, providing richness or detail that would be unavailable from using one method alone (Risjord et al., 2001). Nursing retention is a complex phenomenon underpinned by diverse individual motivations; therefore this study has employed the use of abductive inspiration to investigate the phenomenon more fully. Abductive inspiration is the use of one method to generate ideas that are tested by another method (Risjord, Dunbar & Moloney, 2002). Qualitative research is often used when a phenomenon is poorly understood (Risjord et al., 2001). In this study, the interviews in the first phase helped to orient the researcher to the key variables in the material and the results suggested the hypotheses to be tested by quantitative methods in the second phase. The third rationale for triangulation argues that qualitative and quantitative results can then be melded in support of each other to confirm the results of a study to a greater degree than can either method alone. Confirmation is a matter of maximising coherence and because a more complete theory is more coherent, the goals of confirmation and completeness collapse into one another (Risjord et al., 2001).

5.7 Theoretical framework

Theory has been defined as an “abstract generalisation that presents a systematic explanation about the relationships among phenomena” (Polit & Beck, 2012, p. 744). The use of theoretical frameworks in mixed-methods research provides structure to the complexities that can arise when collecting multiple perspectives by different methodologies. The framework can act as a ‘navigational device’ which guides the researcher back to the aims and objectives of the study (Evans, Coon, & Ume, 2011). The theoretical grounding of this study stems from theories in organisational behaviour and human resource management, which refers to “all those activities associated with the management of work and people in organisations” (Boxall & Purcell, 2011, p. 1). Although this study focuses on health services, the context for the research is framed within an organisational behaviour and human resource

management lens because the study looks at the working behaviours of RNs and the activities of management in organising RN work. The organisational behaviour and human resource management theory is necessary to inform future nursing policy development and will be critical to the implementation of action that leads to a sustainable nursing workforce. It suggests that human resource practices and management behaviour affect employee motivation, and therefore commitment, to the organisation (Boxall, Ang, & Bartram, 2011). Studies regularly show that affective commitment predicts behavioural commitment or quit intentions (Macky & Boxall, 2007). From this theoretical premise, organisational behaviour and human resource management practices can be explored to determine what part they play in influencing RN commitment, to their work within their current workplace and their commitment to the nursing profession.

The nursing work environment can contain high work pressure and emotional demands and studies have shown that such job characteristics can have a profoundly negative impact on employee wellbeing and result in burnout (Halbesleben & Buckley, 2004). Job resources, on the other hand, such as social support, performance feedback and autonomy, may instigate a motivational process leading to work engagement and organisational commitment (Demerouti, Bakker, Nachreiner, et al., 2001; Salanova, Agut, & Peiro, 2005). This is in line with the JD-R model which proposes that job demands are primarily related to the exhaustion component of burnout, whereas lack of job resources are primarily related to disengagement (Demerouti, Bakker, Nachreiner, et al., 2001).

As discussed in the previous chapter, the JD-R model provides this study with a theoretical and analytical lens to explore important elements of RN motivations. This will be used to guide the study design, including the way in which data is collected (content and structure of interview and survey questions), as well as providing additional guidance in the analysis of the data and assigning meaning to it (reflection of results in the context of the model).

5.8 Researching registered nurses

Nursing research continues to grow at a rapid pace due to the advent of evidence-based practice. This places increasing emphasis on professional accountability and the drive to provide quality clinical outcomes (Schneider et al., 2007). The involvement in research by RNs contributes to increased depth and breadth of RN professional practice. Nursing is practised in a structured environment of increasing complexity and physical and emotional demands. There is, therefore, a growing importance to ensure working environments and conditions are supportive and conducive to RN needs. On-going nursing workforce instability in many countries is raising questions about the impact of nurse turnover on the wellbeing of RNs, quality of patient care and system costs (L. J. Hayes et al., 2006).

While numerous studies from several disciplines have been undertaken to better understand turnover behaviour, further research is needed to understand how economic downturns affect the decisions that RNs make to work or not work and how this impacts the capacity of health organisations to respond to increasing demands for healthcare. Registered nurse cohorts are made up of people from diverse backgrounds and a variety of genders (although predominantly female), ages, ethnicities, levels of experience and levels of education (however, all will have the minimum of a Bachelor's degree). When conducting research on RNs working in New Zealand it may be assumed that they are all able and willing to participate in research, that they are literate enough and have a good command of the English language.

5.9 Summary

This chapter discussed various types of research methodologies, including explanations of the qualitative and quantitative components of a mixed-methods research paradigm. This study adopts the anti-conflationist philosophy of critical realism which is committed to ontological realism, epistemological relativism and judgemental rationalism. The theoretical framework of the JD-R model provides the human resource management lens. The importance of researching the nursing workforce has also been discussed. Out of these research methodologies comes the methods that are applied to the study. These are described in the next chapter.

Chapter 6: Methods

Things should be made as simple as possible, but no simpler.

Albert Einstein (1879-1955)

6.1 Introduction

If the methodology is the philosophical framework in which the study takes place, the methods are the practicalities of obtaining raw data for analysis. This study has been undertaken in three phases. The first phase focused on the development of the survey questionnaire through the literature and thematic analysis of the qualitative data. The questionnaire was sent to Registered Nurses (RN) throughout New Zealand. The second used regression methods to analyse all the variables identified in the survey. The final phase analysed the data with structural equation modelling (SEM) to test the research hypotheses. This chapter outlines the research design for each phase of the study, including study population, data collection, issues of reliability and the data analysis approach. It finishes with a brief discussion on ethics.

6.2 Research design: Qualitative development of survey

As previously discussed, the naturalistic methods of qualitative research emphasise the complexity of humans and place importance on understanding the human experience through the collection of materials that are narrative and subjective. A robust research design ensures that data are collected in a reliable manner. The components of the research design for this part of the study are described in detail in the following sections and summarised in Figure 4.

6.3 Qualitative study population

In the first phase, the initial questionnaire was developed to include the key indicative predictors of RN turnover as determined by the literature, organisational behaviour and human resource management theory and personal beliefs of the researcher. The

questionnaire was then further developed in consultation with key stakeholders, including interviews with a representative of Health Workforce New Zealand (HWNZ) and Nursing Council New Zealand (NCNZ). The questionnaire was again extended through interviews with RNs and nurse leaders, who were purposively selected to represent various areas of nursing, as well as a variety of RN age, ethnicity and experience. The intention was to ensure that the survey questions were valid and specific for RNs across all areas of practice in New Zealand and that the questions were extended where necessary to gain the information sought.

6.3.1 Qualitative participant framework: Stakeholder analysis

The study aimed to engage key stakeholders throughout the process so that anticipation for change was created and results could be used in the development of innovative interventional policy and guidelines. The use of stakeholder analysis as a tool has become increasingly popular in the management, development and health policy fields due to the recognition of the importance of stakeholders (individuals, groups and organisations) who have an interest (stake) and the potential to influence the actions and aims of an organisation, project or policy direction (Brugha & Varvasovszky, 2000). The goal of stakeholder analysis is to gain an understanding of the importance and power of each stakeholder, as well as their influence, interest and attitude towards the programme's outcomes (Office of Government Commerce, 2007).

An 'influence/interest' matrix approach was used for the stakeholder analysis in this study. Stakeholders were classified according to their relative importance and interest in the project (Grimble & Wellard, 1997). Stakeholders were mapped on a graph rating their level of interest against the influence they held to exercise those interests. The stakeholders were thereby broadly divided into four groups which highlight the level and type of engagement those stakeholders required from a project manager, including: (i) low interest, low influence: monitor stakeholders; (ii) high interest, low influence: keep stakeholders informed; (iii) low interest, high influence: keep stakeholders satisfied; and (iv) high interest, high influence: key player stakeholders.

The benefit of using stakeholder mapping was that researcher impartiality was optimised and as few pre-conceived ideas were involved in the selection of the

membership of the various groups as possible. Each organisation that was considered by the researcher to be a potential stakeholder was assessed per the interest/influence matrix model. The overall responsibility for planning and development of the health workforce in New Zealand lies with HWNZ, ensuring that staffing issues are aligned with planning on delivery of services and that the healthcare workforce is fit for purpose (Health Workforce New Zealand, 2012). The role of the NCNZ is to protect the public by setting standards for nursing in New Zealand, including overseeing the standard of nursing education, maintaining the registration of all RNs, maintaining RN competence and fitness to practice and managing conduct concerns (Nursing Council of New Zealand, 2013b). The New Zealand Nurses Organisation (NZNO) is a union which represents over 46,000 RNs and health workers. After assessing each of these organisations against the influence/interest matrix model, each was considered to meet the requirements of the very high 'influence' and high 'interest' categories of the model, indicating they are important stakeholders. The use of stakeholder analysis facilitated the development of the research study population employed in the first phase as interviews were conducted with representatives from HWNZ and the NCNZ. Both the NCNZ and the NZNO facilitated sending out the survey questionnaire.

6.3.2 Qualitative participant framework: Registered nurses and nurse leaders

Registered nurses and nurse leader participants were chosen by purposive selection; the deliberate selection of units (individuals, groups of individuals and institutions) that are appropriate for the specific information they can provide in answering the research study's questions (Patton, 2002). A framework was developed (Table 6-1) to ensure that the participants was representative of the diversity of the nursing population in New Zealand in terms of professional hierarchical levels, different stages of career and different areas of nursing practice. Professional hierarchical levels included RN non-leaders, RN operational managers (such as Clinical Charge Nurse) and executive managers (such as Directors of Nursing). Participants represented three different District Health Boards: Auckland, Counties Manukau and Waikato. While each of these groups contained RNs at various stages of their career, the inclusion of Honours students ensured the representation of those RNs early in their careers, while some RNs in the community and residential care groups were in the late stages of their careers. Different areas of nursing practice were covered with the inclusion of RN non-

leaders, RN operational managers and executive managers from hospital, community and residential care settings. Ethnic representation was attempted with the inclusion of RNs from Māori, Pacific Island, Asian, Indian and European descent.

Table 6-1: Participant framework

	RN Non-leader	RN Operational Management	Executive Management
Hospital	4	2	1
Community	6	3	1
Residential Care	2	2	1
Stakeholders: 1x HWNZ, 1x NCNZ			

The number of participants in qualitative research should be determined based on informational needs, hence the principle of data saturation in which the addition of new participants is continued to the point at which no new information is obtained and redundancy is achieved (Polit & Beck, 2012). Theoretical saturation has become the gold standard criterion by which to justify adequate number of participants in qualitative inquiry (Fossey, Harvey, McDermott, & Davidson, 2002; Morse, 1995; Sandelowski, 1995).

The goal of the interview data collection was to describe the shared perceptions, beliefs and behaviours across a group of RNs and nurse leaders in order to inform the development of the survey. The participant framework for this study defined nine categories within the group. One interview in each of these groups plus those with the two stakeholders would ensure 12 interviews across the entire participant group. However, since each category was slightly unique in terms of its level of professional experience and area of nursing practice, it was necessary to conduct interviews in each category until saturation was reached for each unique group. Remarkable similarity of themes was found between interviews for each unique group. Additional interviews were conducted for each group until saturation was achieved. This resulted in at least three interviews for each professional hierarchy, plus the two with stakeholders, resulting in a total of 24 interviews across the entire participant group. There was now confidence that the 24 interviews comprehensively represented the shared perceptions and experiences across the entire group.

6.4 Qualitative data collection

Interviews were conducted with stakeholders, RNs and nurse leaders. Once the initial questionnaire had been developed through the literature, organisational behaviour and human resource management theory, semi-structured interviews were held with key stakeholders, RNs and nurse leaders, at a place and time most convenient to them. Participants were provided with a participant information sheet to detail information about the study and to gain written consent to participate. Face-to-face interviews were regarded as the best method of collecting qualitative data due to the quality of information they yield (Polit & Beck, 2012). Two interviews were held with stakeholders, three with executive managers, three with RN operational managers and 12 with RNs (non-leader). Confidentiality and anonymity of participants was ensured.

The interviews enabled the researcher to discuss whether, from the participants' perspective, items in the questionnaire were understandable, linguistically and culturally appropriate and relevant to the construct (Polit & Beck, 2012). It also provided the opportunity for participants to discuss their views regarding the issues relating to the study, namely issues of RN retention in the profession. Each interview lasted approximately half an hour and during the session the researcher used an interview schedule consisting of 12 open-ended questions (Appendix 2). The interview schedule was developed to explore themes already raised in the literature and related to the objectives of the study. In addition, the script contained prompts to facilitate disclosure and discussion. All interviews were audio recorded with participant consent and then transcribed verbatim. Personal notes taken during the interviews were retained as a means of demonstrating the thought processes and rationale behind the interview choices for the questionnaire.

6.5 Pilot study

Researchers intent on conducting a study that will yield high-quality evidence may incorporate a pilot study: a small scale version designed to test the methods to be used in a larger, more rigorous study (Polit & Beck, 2012). This process is frequently undertaken for both quantitative and qualitative research and can increase the probability of the full-scale study being successful (van Teijlingen & Hundley, 2002). Once the pilot study is completed, the research process can be reviewed and improved

prior to the commencement of the main study. Pilot studies enable the researcher to: (i) provide insight regarding the appropriateness of the proposed method or questionnaire; (ii) highlight potential impediments of the main study; and (iii) test the feasibility of the research process, such as distributing and collecting questionnaires or recruiting participants. The initial questionnaire was piloted on eight purposively selected RNs. During this process, how the participants responded to specific questions was noted, as well as whether questions required further explanation. This helped to test the clarity of the instrument and whether the questions needed rephrasing to elicit more suitable responses (Nyatanga, 2005). The developmental phase of the research design is summarised in Figure 6-1 below.

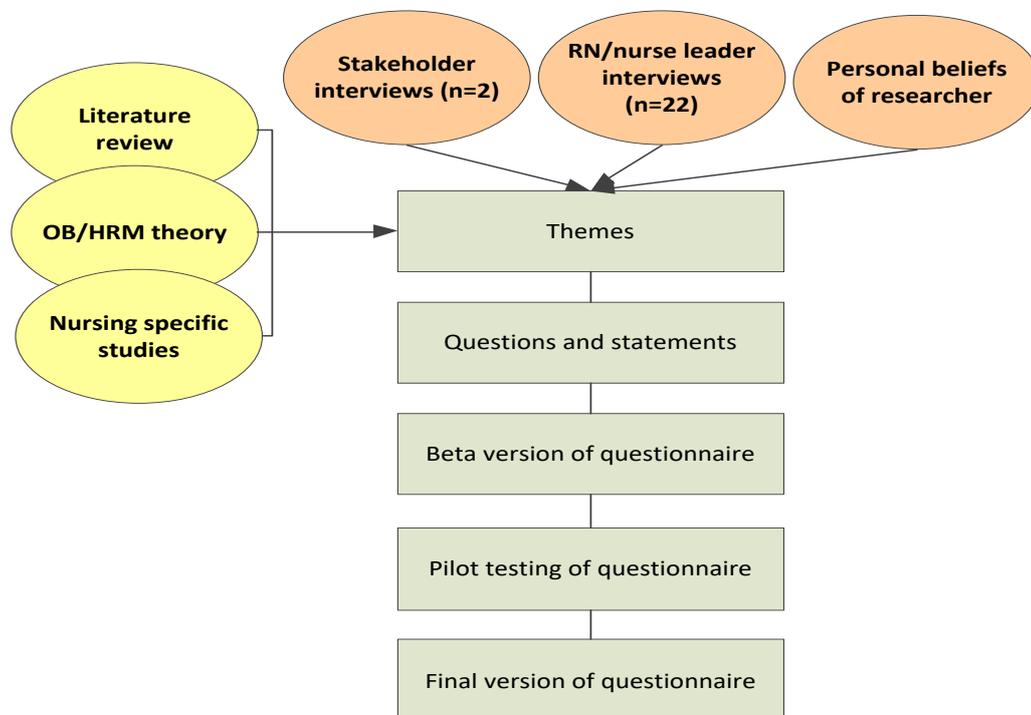


Figure 6-1: Research design – Development of the survey questionnaire

6.6 Reliability: Qualitative phase

Reliability is defined as consistency, both internally and over time. Internal consistency indicates the extent to which the items within the instrument are consistent with each other (Punch, 2005a). Consistency over time relates to whether the same instrument administered to the same people at a different time would produce the same results.

An inter-rater method of reliability was used to ensure that the qualitative data arising from the transcript analysis of the interviews consistently portrayed the phenomena being studied. The principal researcher and two independent researchers commented on the codes and themes, compared interpretations for consistency and recoded discrepancies where necessary. Once the initial questionnaire was complete, a pilot study was conducted on eight RNs to test its reliability. Further to this, different types of triangulation were used. Triangulation uses multiple methods to collect and interpret data about a phenomena to ensure an accurate representation of reality (Punch, 2005b). During the first phase, data triangulation was achieved by collecting data from multiple sources, including a variety of participants with different types and levels of experience in the field of nursing. Methodological triangulation was achieved by using multiple methods of data collection (interviews and a survey). Triangulation was also achieved by including three types of analyses: general induction, regression and structural equation modelling.

The first phase of the study focused on developing the survey questionnaire. Then the final survey questionnaire (Appendix 3) was delivered to RNs throughout New Zealand to provide data for the regression and SEM phases of analysis. The methods used in these phases are now discussed.

6.7 Research design: Regression and structural equation modelling

Quantitative research methods investigate data that are often collected through surveys. Surveys obtain information about prevalence, distribution and interrelations of variables within a population (Polit & Beck, 2008). The flexibility and broadness of scope that surveys provide enables the extensive analysis of a wide range of topics within a population. This section describes the components of the research design as it relates to delivering the questionnaire and analysing the quantitative data. This is summarised in Figure 6-2.

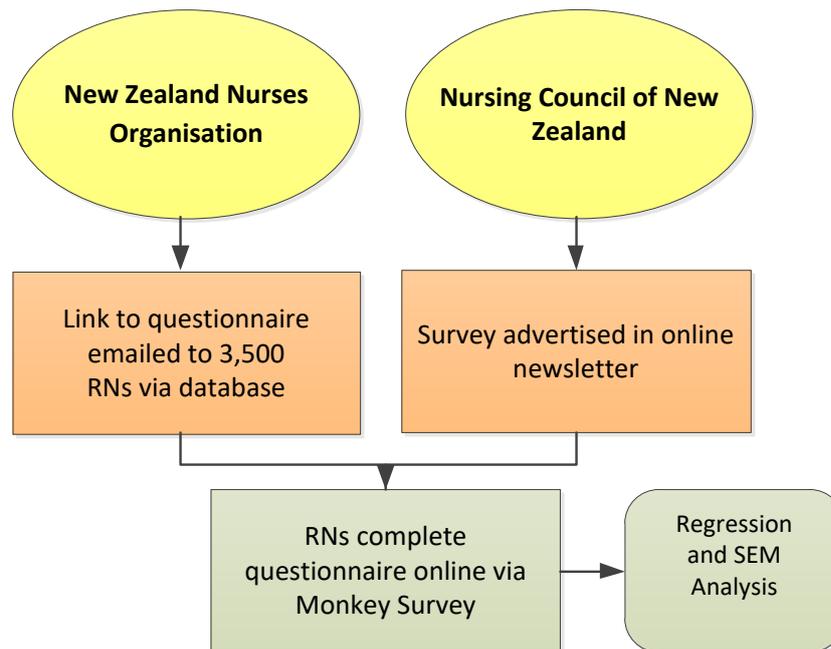


Figure 6-2: Research design – regression and SEM analysis phase

6.8 Quantitative study population

The developed survey was distributed to RNs in two ways. In October 2014, a link to the survey questionnaire was emailed to a random sample of 3,500 RNs on the New Zealand Nurses Organisation’s (NZNO) membership database, who had an active membership of approximately 46,000 RNs. This resulted in 665 responses, a response rate of 19 percent. The random sample of 3,500 RNs was representative of the total population, according to age group, gender and ethnicity. A minimum of 1200 fully completed questionnaires would give less than a three percent error of margin with a confidence level of 95 percent. While 1200 completed responses (minimum response rate of 40%) would be adequate for a margin of error of three percent, 3,500 people were initially targeted to ensure that the completed responses were as representative as possible of the total population. Stratification was not necessary because the entire cohort of RNs in New Zealand were invited to participate via the NCNZ’s newsletter.

In August 2015, the survey was then advertised in the Nursing Council of New Zealand’s (NCNZ) online newsletter, which included an external link to the survey. The NCNZ represents the total population of RNs, which was approximately 50,356

at the time of the study. This resulted in 2,245 responses. Since the study is estimating over 300 parameters in the structural equation model with 71 items, 24 latent variables and over 2300 degrees of freedom, a large sample was needed to provide stable and reliable estimates. Analyses, including independent sample t-tests and measurement invariance tests, were undertaken comparing the 2014 and 2015 respondents before combining the two samples. Independent sample t-tests showed the only difference in demographics was one year more in tenure for the 2015 sample, showing that the data was collected from the same cohort in two subsequent years. Next, measurement invariance tests (G. W. Cheung, 2008) showed that the two samples demonstrated configural invariance, metric invariance and scalar invariance, implying the two samples conceptualised the constructs in the same way. Therefore, the two data waves could be combined, giving a total sample size of 2876 usable responses, including 2602 full respondents (90.5%) and 274 partial respondents (9.5%).

6.9 Quantitative data collection

The Head of School of Nursing at the University of Auckland made the initial approach to the representative of the NZNO in order to introduce the study and the researcher. With permission gained, the researcher then contacted the representative by email to ask whether they would agree to participate in an interview in the first phase, as well as whether their organisation would agree to send out the questionnaire via their database in the second phase. The formal application for the NZNO support for external research was completed and permission was granted. An email containing the participant information sheet and a link to the online questionnaire developed in the first phase was sent to 3,500 RNs on the organisation's database in October 2014. Further to this, the researcher contacted the representative of the NCNZ by email to introduce the study and ask for any available assistance in getting the survey to their members. They agreed to advertise the study in their online newsletter which was emailed in August 2015. In both circumstances, participant consent was assumed when participants chose to complete the questionnaire online.

6.10 Measures used

Where possible reliable and valid variable measures were used to minimise measurement error. For each of those variables, measures were chosen that had demonstrated validity in good-quality, peer-reviewed published research; and for each measure the Cronbach's alpha reliability was considered, which measures the extent to which test items inter-correlate. Matthews, Deary, and Whiteman (2003) suggested that a reliability score of 0.7 or above is ideal.

Dependent variables

Intention to leave organisation and *Intention to leave profession* were measured by three items each. These were developed by Dotson, Dave, Cazier, & Spaulding (2014) as part of a retention model survey for RNs. The scales were tested and further validated using confirmatory factor analysis and had Cronbach's reliability coefficients that exceeded the accepted threshold of 0.7. Examples include "I want to switch to another nursing job as soon as possible," and "I want to leave the nursing profession as soon as possible." Items were scored on a seven-point rating scale, ranging from 1 = Strongly disagree to 7 = Strongly agree.

Mediating variables

Burnout was measured using the Malach-Pines Burnout Measure Scale, short version (BMS-10) (Malach-Pines, 2005). The BMS-10 is based on the definition of burnout as a state of physical, emotional and mental exhaustion (Pines & Aronson, 1988). It assesses an individual's levels of these three types of exhaustion and it can be used with all occupational groups. The BMS-10 is a valid and reliable measure of burnout with internal consistency coefficients exceeding 0.85. A Cronbach's alpha of 0.9 was reported in a study of burnout in dual-earner couples in Israel and the US (Pines, Neal, Hammer, & Icekson, 2011). Scores were based on 10 items (tired, disappointed with people, hopeless, trapped, helpless, depressed, physically weak, worthless/like a failure, difficulties sleeping, feeling of 'I've had it'), graded between 1 and 7 according to frequency (never, almost never, seldom, sometimes, often, very often, always, respectively). Scores of 4 or above indicated burnout.

Engagement was measured using the shortened Utrecht Work Engagement Scale (UWES-9) (Schaufeli, Bakker, & Salanova, 2006). The three dimensions of work engagement are vigour, dedication and absorption. People high on vigour report high energy, are willing to persist and invest effort in their work and exhibit mental resilience while working. People high on dedication are inspired by their work and see their work as important and a source of pride; people high on absorption report becoming engrossed in their work and may find it difficult to detach from their work (Schaufeli et al., 2002). Three items for each dimension are scored on a seven-point rating scale, ranging from 1 = Never to 7 = Always. Examples include “At my job, I feel bursting with energy” (vigour), “I am enthusiastic about my job” (dedication) and “I feel happy when I am working intensely” (absorption). The factorial validity of the UWES-9 has been demonstrated using confirmatory factor analyses and the three scale scores have good internal consistency and test-retest reliability. The reported alpha reliability of the UWES-9 total score across 10 different countries varied between 0.85 and 0.92, with a median of 0.92. The reported reliabilities of the subscales across 10 countries were also satisfactory: vigour (median $\alpha = 0.77$), absorption (median $\alpha = 0.78$), dedication (median $\alpha = 0.85$) (Schaufeli et al., 2006).

Independent variables

Variables such as *effects of the recession, returning to work, intention to leave NZ to work, intention to return to NZ to work, job satisfaction* and other demographics factors such as *age, gender, ethnicity, dependent children living at home, dependent adults living at home, contribution to household income, education, health status, DHB, employment setting, area of practice, job title, hours of work, reason for part-time hours and tenure* are included as independent variables.

The control variable *reward* included the measurement of pay and promotion (extrinsic rewards) and respect and recognition (intrinsic reward). Pay was measured with three items taken from the NEXT-Study Group research, which reported reliability alphas of between 0.70 and 0.84 (Hasselhorn, Tackenberg, & Muller, 2003). These were rated on a 7-point rating scale and asked about satisfaction with pay in relation to need for income, considering the pay of other comparable professions and considering the pay of other RNs in other organisations. While the last item addressed external equity, another item was added to measure internal equity. One important antecedent of job

satisfaction is employee perception of equity (perceived fairness), which is defined by Adams (1965) as the extent to which an employee perceives that they are being treated fairly compared to others inside and outside the organisation. Therefore, an item was added that asked about satisfaction with pay considering the pay of RNs within the same organisation.

Opportunity for promotion and *respect and recognition* were measured with one item each taken from the reward section of the shortened scales involved in the effort-reward imbalance (ERI) model (Siegrist et al., 2004). The ERI model is based on the idea that there should be a balance between what the employee gives ('effort') and what they receive ('reward'). The model implicates financial reward, as well as esteem and career opportunities (Siegrist, 1996). Reported alpha reliabilities of the rewards scale have been between 0.70 and 0.88 (Siegrist et al., 2004) and 0.74 and 0.81 (Hasselhorn et al., 2003). Promotion was measured with: "Considering all my efforts and achievements, my work prospects are good." Respect and recognition was measured with: "Considering all my efforts and achievements, I receive the respect and prestige I deserve at work." A seven-point rating scale was used ranging from 1 = Strongly disagree to 7 = Strongly agree.

The economic recession influenced the decisions of many RNs about whether to participate in the labour market and the number of hours to work (Buerhaus, 2009). The *effects of recession* were measured by six questions based on qualitative findings in the first phase: "In the last five years, I returned to the nursing profession after a period of absence because I needed the money," "In the last five years, I increased my hours of work as a registered nurse because I needed the money," "In the last five years, my partner/other financial contributor had a reduction in income," "The income of my partner/other financial contributor is likely to increase in the coming years," "If my financial situation improves, I will probably reduce the number of hours I work," and "If my financial situation improves, I will probably stop working altogether." Items were scored on a seven-point rating scale, ranging from 1 = Strongly disagree to 7 = Strongly agree.

Issues of *returning to work* requirements for those RNs wanting to return to the workforce were raised during the qualitative interviews in the first phase of this

research. This construct was not identified in the literature, therefore to assess the perception of the difficulties of returning to work, two items based on the qualitative results were developed. These were: “It is hard to return to nursing if the period of absence is between one to five years” and “It is hard to return to nursing of the period of absence is more than five years.” Participants were asked to rate their perception of how difficult it is to return to the nursing profession after a period of absence of 1) between one to five years and 2) more than five years. A seven-point rating scale was used ranging from 1 = Strongly disagree to 7 = Strongly agree.

Job demands

Following the job-demands scale of Hasselhorn et al. (2008), *quantitative demands* were measured by five items. Four items were taken from the “quantitative demand scale” in the Copenhagen psychosocial questionnaire, which have shown good internal reliability (Kristensen, Hannerz, Hogh, & Borg, 2005). For example, “How often do you lack time to complete all your work tasks?” and “Can you pause in your work whenever you want?” Another item was added by the NEXT study group (Hasselhorn, Muller, & Tackenberg, 2005) on the basis of validity tests: “Do you have enough time to talk to patients?” The underlying reasoning was to develop a scale covering the specific demands of the nursing profession. Responses had to be given on a five-point scale ranging from 1 = Never to 5 = Always.

Emotional demands were measured by four items developed specifically for healthcare professions by de Jong, Mulder, and Nijhuis (1999). An alpha reliability of 0.75 was reported. Participants were asked to indicate how often they were confronted with ‘death’, ‘illness or any other human suffering’, ‘aggressive patients’ and ‘troublesome patients’ in their work. This research identifies two different constructs within the four items used. The first two items measure exposure to death and illness, which, given the nature of nursing work, may appeal to RN sense of altruism leading to increased engagement. This is therefore considered a challenge demand. The final two items measure exposure to aggressive and troublesome patients, which may lead to increased stress and burnout. Hence this is considered a hindrance demand. A five-point rating scale was used ranging from 1 = Never to 5 = Always.

To measure *personal harm*, two items were adapted from the quality of nursing work life (QNWL) assessment tool (Brooks, 2001). There are four subscales in the QNWL tool: (1) work life/home life, (2) work design, (3) work context and (4) work world. The work life/home life dimension is defined as the interface between the RN work and home life. The work design dimension is the composition of nursing work and describes the actual work RNs perform. The work context dimension includes the practice settings in which RNs work and explores the impact of the work environment on both RN and patient systems. Finally, the work world dimension is defined as the effects of broad societal influences and change on the practice of nursing. Personal harm is a component of the work context subscale. Research has shown a test-retest reliability of 0.90 (Brooks & Anderson, 2004). The questions were “I feel like my workplace provides a secure environment,” and “I feel safe from personal harm (physical, emotional, or verbal) at work.” A five-point rating scale was used ranging from “1 = Never” to “5 = Always.”

Personal demands

Work-life interference was measured with six items taken from Macky and Boxall (2014), who had slightly modified and shortened an instrument by Michael R. Frone and Yardley (1996) developed to measure work–family conflict. That original 12 item scale reported coefficient alphas of 0.87 for work to family conflict and 0.79 for family to work conflict. The wording of the six items used in this study goes beyond family to include negative work spill-over to non-familial aspects of personal life and friendship. The response scale was ‘Never, Seldom, Sometimes, Often, Very often’ (scored from 1 = Never to 5 = Very often), with higher scores suggesting greater work–life interference.

Job resources

Supervisor support and *colleague support* were measured with slightly modified items taken from van der Heijden (2003). The original scale reported reliability alphas of 0.78 for supervisor support and 0.74 for colleague support. Supervisor support was measured using four items: “How often does your immediate supervisor appreciate the value of your work and its results?”, “How often does your immediate supervisor express a positive opinion on your work?”, “How often does your immediate supervisor give you supportive advice?” and “In general, is your immediate supervisor ready to help you

with the performance of your tasks?” A five-point rating scale was used ranging from 1 = Never to 5 = Always. Colleague support was measured by the same four items, with ‘colleagues’ instead of ‘immediate supervisor’ in the item formulation.

Organisational support was measured by three items from a 9-item shortened version of the Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986; Eisenberger, Fasolo, & Davis-LaMastro, 1990). The three items from the SPOS scale that loaded highest in the factor analysis by Wayne, Shore, and Liden (1997) were used. They reported an alpha reliability of 0.93. Gutierrez et al. (2012) also used the SPOS scale and reported an alpha reliability of 0.95. The items were: “Senior management really cares about my wellbeing”, “Senior management cares about my general satisfaction at work,” and a reverse scored item “Senior management shows very little concern for me.” Participants indicated their degree of agreement to these items on seven-point scales ranging from 1 = Strongly disagree to 7 = Strongly agree. The term ‘organisation’ was changed to ‘senior management’ to better suit RNs in a diverse range of practice areas.

Family-friendly practices was measured using five items taken from a study by Houkamau and Boxall (2011). They argued that the actual practices that shape employment conditions were arguably more important to employees than the mere existence of formal policies. On that basis, an index of key family-friendly employment practices was developed including “The ability to take time off work when necessary for caregiving (e.g. of children, elderly or other dependents)”, “Flexible start-and-finish times for employees who need them”, “The ability to work from home for employees who need it”, “Permanent part-time work for people who cannot work full-time”, “Extra parental leave provisions above the legal minimum requirements.” Participants were asked if their current or most recent employer provided access to these practices, with the option of answering “Yes”, “No”, or “I don’t know.”

Initially viewed as the amount of freedom and independence an individual had in terms of carrying out his or her work assignment (Hackman & Oldham, 1975), the concept of *autonomy* has expanded to reflect the extent to which a job allows freedom, independence and discretion to schedule work, make decisions and choose the methods used to perform tasks (Breugh, 1985; Wall, Jackson, & Davids, 1992; Wall,

Jackson, & Mullarkey, 1995). In the interest of keeping the survey to a length that encouraged participants to complete it, this study chose to focus on the decision-making aspect of autonomy. Three items were taken from the Work Design Questionnaire (WDQ) developed by Morgeson and Humphrey (2006). These were: “The job gives me a chance to use my personal initiative or judgment in carrying out the work”, “The job allows me to make a lot of decisions on my own” and “The job provides me with significant autonomy in making decisions.” A seven-point rating scale was used ranging from 1 = Strongly disagree to 7 = Strongly agree. The WDQ scales have demonstrated excellent internal consistency reliability, with the decision-making variables showing an alpha of 0.85 (Morgeson & Humphrey, 2006).

Professional development refers to having access to further training and development. A study by the NZNO (2011) found considerable variation between employers and the access they provide to training and development. They concluded that further study is required regarding whether perceptions of fairness related to access to training is a significant source of dissatisfaction. Two items were taken from the NZNO study to measure access to training, including: “I am able to take time off for training,” and “I am able to keep up with developments to do with my job. A seven-point rating scale was used ranging from 1 = Strongly disagree to 7 = Strongly agree.

Personal resources

The self-efficacy component of *psychological capital* was measured by six items taken from the PsyCap Questionnaire (PCQ) (Luthans, Youssef, et al., 2007a). The PCQ measures psychological states of efficacy, hope, resilience and optimism. The PCQ has demonstrated adequate confirmatory factor analytic structure across multiple samples (Luthans, Youssef, & Avolio, 2007b) and strong internal reliability (alpha = 0.92) (Avey et al., 2009). In the interest of reducing the number of survey items, this study focused on self-efficacy. Individuals working in a resourceful work environment are likely to increase their beliefs in their capabilities (self-efficacy) (Hobfoll, 2002) and, consequently, employees develop a positive self-regard and experience goal self-concordance (Luthans & Youssef, 2007). Employees with goal self-concordance are intrinsically motivated to pursue their goals, which may lead to higher levels of work engagement and performance. The term ‘company’ was changed to ‘organisation’ to better suit RN employment institutions. ‘People outside company (suppliers,

customers)’ was changed to ‘outside work area (other health professionals, patient’s family members)’ again to make the items more relevant to RNs. Example items are: “I feel confident analysing a long-term problem to find a solution” (efficacy), “There are lots of ways around any problem” (hope), “I usually take stressful things at work in my stride” (resilience) and “I always look on the bright side of things regarding my job” (optimism). A seven-point rating scale was used for all items ranging from 1 = Strongly disagree to 7 = Strongly agree.

Value congruence was measured by three items taken from Dotson et al.’s (2014) retention model. An alpha reliability of 0.85 was reported for these measures. They were: “My employer’s values align very loosely with my personal values”, “Those above me in the organisation put quality of care of the patient first” and “My organisation and I agree on patient care.” Participants were asked to rate their answers from 1= Strongly disagree to 7 = Strongly agree.

To measure *career orientation*, a single item was taken from Price’s (2001) causal model of turnover. Participants were asked to rate the extent to which they view their job as a career that they plan to pursue for many years, with 1= To no extent and 5 = To a very great extent.

Image of nursing was measured by a single item taken from the QNWL scale by Brooks (2001). This was: “I believe that society has a good image of registered nurses.” A seven-point rating scale ranged from 1 = Strongly disagree to 7 = Strongly agree. Brooks’ survey of QNWL has been used by many researchers with reported alpha reliabilities of 0.89 (Almalki, Fitzgerald, & Clark, 2012), 0.90 (Brooks & Anderson, 2004) and 0.93 (Khani, Jaafarpour, & Dyrekvandmogadam, 2008).

The measures used in this study are summarised in Table 6-2:

Table 6-2: Measurement tools used in the study

Variable	Measurement tool/Source
Intention to leave profession	Dotson, Dave, Cazier, & Spaulding (2014)
Intention to leave organisation	Dotson, Dave, Cazier, & Spaulding (2014)
Burnout	Malach-Pines Burnout Measure Scale (BMS-10) (Malach-Pines, 2005)
Engagement	Utrecht Work Engagement Scale (UWES-9) (Schaufeli et al., 2006)
<i>Job demands:</i>	
Quantitative demands	Copenhagen Psychosocial Questionnaire (Hasselhorn et al. (2008)
Emotional demands	Developed from interview data de Jong et al. (1999)
Personal harm	Quality of Nursing Work Life (QNWL) (Brooks, 2001)
<i>Personal demands:</i>	
Work-life interference	Macky and Boxall (2014)
<i>Job resources:</i>	
Supervisor support	van der Heijden (2003)
Colleague support	van der Heijden (2003)
Organisational support	Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986; Eisenberger et al., 1990).
Family-friendly practices	Houkamau and Boxall (2011)
Autonomy	Work Design Questionnaire (WDQ) (Morgeson & Humphrey, 2006)
Professional development	New Zealand Nurses Organisation (2011)
<i>Personal resources:</i>	
Psychological capital (self-efficacy)	PsyCap Questionnaire (Luthans, Youssef, et al., 2007a)
Value congruence	Dotson, Dave, Cazier, & Spaulding (2014)
Career orientation	Price (2001)
Image of nursing	Quality of Nursing Work Life (QNWL) (Brooks, 2001)
<i>Contextual factors:</i>	
Pay	NEXT-Study Group research (Hasselhorn et al., 2003)
Respect and recognition	Effort-reward model (Siegrist et al., 2004)
Opportunity for promotion	Effort-reward model (Siegrist et al., 2004)
Effects of economy	Developed from interview data
Returning to work	Developed from interview data

6.11 Reliability and validity: Quantitative phase

The survey in this study is based on scales that measure employees' own perceptions of their work, because these have the strongest influence on their attitudes, behaviour and well-being (Wood & De Menezes, 2011). It is difficult to get accurate information about internal states such as attributes or emotions with anything other than self-reports (Spector, 2006). How well the survey sample represents the population is gauged by two important statistics: the survey's margin of error (based on sample size) and confidence level. This study's survey reported a margin of error of plus or minus three percent at a 95 percent level of confidence. Further to this, Chronbach's alpha values are reported for each multi-item pre-validated measurement scale. Cronbach's alpha is the most common measure of internal consistency (reliability) (Laerd Statistics, 2013). It is most commonly used when multiple Likert questions in a survey form a scale and you wish to determine if the scale is reliable. Matthews et al. (2003) suggest that a reliability score of 0.7 or above is ideal. Acceptable alphas were found with all measurement scales used (Appendix 4).

Reliability may be threatened by common method bias, which is the systematic measurement error caused by rater response styles, item characteristics, and aspects of the measurement context (Podsakoff, MacKenzie, & Podsakoff, 2012). However, there are conflicting opinions on whether common method bias is actually a problem for researchers. Although many authors believe that method bias is an important problem that needs to be controlled (Campbell & Fiske, 1959; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Williams, Hartman, & Cavazotte, 2010), others claim that the problem has been distorted and exaggerated and is therefore a myth (P. Y. Chen & Spector, 1991; Spector, 2006; Spector & Brannick, 2009). It is true that when two or more variables are measured with the same method, such as a self-report questionnaire, some of the observed correlations might be inflated due to shared biases (Spector, 2006). However, although some variables share biases, that does not mean that all variables share biases, and the nature of shared bias depends on both the construct of interest and the method used to measure it (Spector & Brannick, 1995). Common method bias is proposed as a myth due to the assumption that method alone is sufficient to produce biases. Further to this, there are few scientific data to

unequivocally support the common method bias view and there are data to refute it (Spector, 2006).

Several precautions were taken to reduce the likelihood of common method bias. Firstly, where possible, measures with well-established construct validity and satisfactory internal reliability were used (Conway & Lance, 2010). Further to this, the questionnaire was structured such that the dependent variables were measured before the independent variables, reducing the likelihood of social desirability contributing to common method bias (T. J. B. Kline, Sulsky, & Rever-Moriyama, 2000). Having a separation between the measures of the predictor and criterion should reduce the respondent's ability and motivation to use previous answers to fill in gaps in what is recalled, infer missing details, or answer subsequent questions (Podsakoff et al., 2003).

Next, at least one item with reversed wording was included in each section of the survey. There is always a risk with surveys that respondents simply click through the answers without fully engaging with the content. Reverse wording asks the same question twice but changes the direction of the measurement scale by asking the question in a positive and negative voice. The score of one scale can then be reversed and, if valid, should score the same as the other. This balanced the positively and negatively worded items and helped to decrease the motivation to respond statistically by increasing the effort required to do so (Podsakoff et al., 2012).

Finally, a Harman's one-factor test using SPSS was also conducted (Podsakoff et al. 2003) which involves running factor analysis by specifying a one-factor solution and if the one-factor does not explain the majority of the total variance, then the method factor does not exist. The results showed that the single factor explained only 27% of the total variance, which is far less than the cut-off of 50% for common method variance.

Further to this, construct validity was ensured by generating survey items based on the literature and interviews. To test convergent and discriminant validity, a measurement model was conducted before the structural model in the SEM analysis. All standardised factor loadings were higher than 0.5, in fact mostly above 0.7, which indicated good convergent validity (Steenkamp & van Trijp, 1991). Also, all the

correlation coefficients among the constructs were lower than 0.85, which indicated good discriminant validity (R. B. Kline, 2016a).

6.12 Data analysis

Mixed-methods research synthesises qualitative and quantitative research through the use of triangulation. This study collected qualitative interview data which was analysed using a general inductive approach. This data was used to inform the development of the survey which collected the quantitative data. This data was analysed using regression analysis and structural equation modelling analysis techniques. The analysis approach is summarised in Figure 6-3 below:

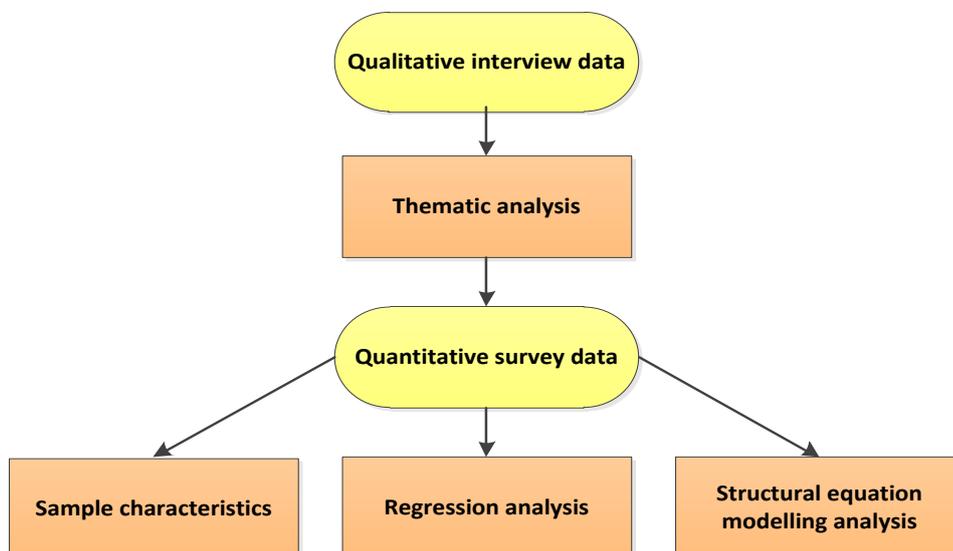


Figure 6-3: Analysis design

6.12.1 Thematic data analysis

A general inductive approach was used to thematically analyse the data obtained from the interviews. The purpose of using a general inductive approach for analysis of qualitative data is to condense raw textual data into a brief, summary format. It also establishes clear links between the research objectives and the summary findings derived from the raw data and develops a framework of the underlying structure of experiences or processes that are evident in the raw data (D. R. Thomas, 2006). The general inductive approach provides a systematic set of procedures for analysing

qualitative data that can produce reliable and valid findings. Qualitative data were entered verbatim into Microsoft Word, read many times to form codes and then condensed into themes. Links were then established between the research objectives and the themes. External corroboration of the thematic analysis was undertaken in consultation with the researcher's supervisors to validate the identified themes. Any discrepancies were discussed and the codes and themes adapted accordingly. The quality of the data collected was considered in the context of validity, generalisability and trustworthiness.

6.12.2 Regression data analysis

Given the amount of data anticipated to arise from the survey and hypotheses under investigation, statistical analysis was anticipated to be complex and multi-phased. Consequently, statistical advice was sought from three independent statisticians and research methodologists (Professor Gordon Cheung from the Business School, Avinesh Pillai from the Department of Statistics and Associate Professor Cameron Walker from the Department of Engineering from the University of Auckland). The quantitative data were analysed in three phases. Firstly, sample characteristics were reviewed. Secondly, an analysis of all the independent variables included in the survey was conducted through the use of linear and multiple regression methods. Thirdly, the analysis sought to test and confirm the theoretical assumptions of the job demands-resources model. Structural equation modelling was performed on the independent variables with theoretical links to burnout and engagement.

Firstly, in order to explore the results of the quantitative data, the sample characteristics were reviewed. Descriptive statistics and graphs including frequency, percentage, mean and standard deviation are included for all survey questions (Appendix 5). Scale reliability was tested by calculating items for total correlation coefficients and Cronbach's alpha for the overall scale. Linear regression analysis was then conducted on all independent variables to determine which had the most statistically significant relationships with the dependent variables. However, in fitting regression models, there are often many explanatory variables, any or all of which may to some extent affect the outcome variable. If the number of variables is large, as is the case in this study, then developing a smaller model is preferable. The aim of the analysis, therefore,

is the selection of a subset of ‘important variables’ that impact on the outcome (Royston & Sauerbrei, 2008). This is referred to as parsimonious model building. With this in mind, those independent variables that were identified in the linear regression analysis as having a moderate practical significance (r -squared >0.13) on the dependent variables were entered into two multivariate regression models, one for ITLO and one for ITLP.

Fan and Konold (2010) recommended both statistical significance and effect size be taken into account. R. B. Kline (2013) suggests that researchers should be more concerned with estimating effect sizes and their precisions than with the outcomes of significance testing. Hence, for all continuous variables, the effect size (r -squared) is considered in order to examine practical significance. R -squared is a statistical measure of how close the data are to the fitted regression line. The r -squared is the percentage of the response variable variation that is explained by a linear model. A small effect size is r -squared greater than 0.0196; a moderate effect size is greater than 0.13 and a large effect size is greater than 0.51 (J. Cohen, 1988). For all categorical variables, one-way analysis of variance (ANOVA) and the eta-square was reported instead of r -squared. The eta-squared measures the proportion of the total variance in a dependent variable that is associated with the membership of different groups defined by the independent variable (Richardson, 2011). It equals the sum of squares between groups divided by the sum of square total. For this study, an r -squared and eta-squared of 0.13 or greater is considered moderately statistically significant.

6.12.3 Structural equation modelling data analysis

The next phase of the quantitative data analysis was done using structural equation modelling (SEM). The aim of the study was to find what factors affect the decisions that RNs make around changing organisations and leaving the profession. However, the literature indicates that many of these factors are complicated by their hypothesised pathway through the mediating variables of burnout and engagement. One could systematically work through the hypotheses, testing each one using multiple regression. However, instead, SEM was applied, using MPlus as the software package. SEM is a set of statistical techniques commonly used to test a theoretical model (P. M. Bentler & Chou, 1987). It allows researchers to study real-life phenomena and provides a useful forum for sense-making and in so doing links philosophy of science to theoretical and

empirical research (Bagozzi & Yi, 2012). The value of SEM lies in the assessment of latent (unobservable) variables at the observation level (measurement model) and testing hypothesised relationships between latent variables at the theoretical level (structural model) (Hair, Sarstedt, Ringle, & Mena, 2012). SEM has become increasingly popular in social and behavioural sciences and is considered one of the most widely used statistical techniques for testing complex models that involve several dependent and independent variables (Heene, Hilbert, Draxler, & M., 2011; MacCallum & T., 2000).

The measurement model of SEM is the confirmatory factor analysis (CFA) and depicts the pattern of observed variables for the latent constructs in the hypothesised model (G. W. Cheung & Lau, 2007; Schreiber, Nora, Stage, Barlow, & King, 2006). A major component of a CFA is the test of the reliability of the observed variables. Moreover, researchers also use the measurement model to examine the extent of interrelationships and covariation (or lack thereof) among the latent constructs. As part of the process, factor loadings, unique variances and modification indexes (should a variable be dropped or a path added) are estimated for one to derive the best indicators of latent variables prior to testing a structural model. The structural model comprises the other component in linear structural modelling. The structural model displays the interrelations among latent constructs and observable variables in the proposed model as a succession of structural equations; akin to running several regression equations.

SEM is ideally suited to this study where there are multiple statistical questions, because it can simultaneously conduct factor analysis, multiple regression and model comparisons, as well as test mediating relationships, curvilinear hypotheses and moderation hypotheses. This approach sheds light on the nuances surrounding the prediction of nursing ITL and the relative contributions of the diverse predictors and mediators to the overall ITL prediction, which is more useful than testing hypotheses separately. In addition, SEM takes measurement error into account when conducting calculations (Schumacker & Lomax, 2004). Most measures in this study will naturally incur some error, so this advantage was appealing.

The independent variables, mediating variables, control variables and dependent variables were configured into a model for the purposes of SEM. Selection of the independent variables was based on those with theoretical links to the JD-R model and included those measured with pre-validated multi-item scales. Analysing multiple variables shows that mediators are often involved in social and behavioural science research, in addition to the influence of independent variables on dependent variables. When considering the influence of independent variable X on dependent variable Y, if X influences Y through its influence on the mediator (M), M is called a mediator. Mediation effect analysis is important in organisational behaviour, psychology and other disciplines. Therefore, a mediator is crucial to defining a model. Mediation has largely been tested using regression. However, Holmbeck (1997) suggested carrying out such testing through SEM. Such an approach has advantages over the traditional regression method. The latent variable approach of SEM includes attenuation for measurement error, which results in a more accurate estimate of the relationship between structural model components. Regression uses manifest variable models that are imperfectly measured, thus running the risk of over- or under-estimating the relationship between structural model components (Rupp & Cropanzano, 2002).

In order for full mediation effects to occur, several conditions need to be satisfied. First, using Hypothesis 2b as an illustration, quantitative demands must affect burnout in the predicted direction. Second, quantitative demands must have effects on ITLP. Third, burnout must also have a relationship with ITLP. Finally, when both quantitative demands and burnout are concurrently tested on their relationships with ITLP, the effect of quantitative demands is increased as a result of the inclusion of burnout (Baron & Kenny, 1986). Subsequent researchers (A. F. Hayes, 2009; MacKinnon, Krull, & Lockwood, 2000; Shrout & Bolger, 2002) “have advocated the relaxation of the second condition because confounding, suppression and interactive effects could attenuate the independent-dependent variables relationship” (Boxall et al., 2011, p. 1521). In the case of this example, this is the quantitative demands-ITLP relationship.

In order to observe the mediation effect (the fourth condition described above, in this case, an increase in significance and effect of quantitative demands on ITLP after burnout is included), the ‘bootstrapping’ technique was used. The bootstrapping

approach has assumptions relating to normal distribution, symmetries and large sample sizes (Shrout & Bolger, 2002). It is based on multiple sampling from the original dataset and then calculates the means and deviations of these samples. “The resultant confidence interval, when not containing the value of zero, demonstrates that there is a difference in the change of coefficients for the test of mediation” (Boxall et al., 2011, p. 1521).

A theory-based approach to SEM is necessary because all relationships must be specified by the research before the SEM model can be estimated, making the analysis confirmatory rather than exploratory (B. M. Byrne, 2012; Hair, Black, Babin, & Anderson, 2014; R. B. Kline, 2016b; Pedhazur, 1991). With other multivariate techniques, the researcher may be able to specify a basic model and allow default values in the statistical programme to fill in the gaps. SEM, in contrast, requires the specification of which variables are associated with each construct, and then loadings are estimated only where variables are associated with constructs (Hair et al., 2014). The distinction lies in the implementation rather the interpretation because exploratory factor analysis requires no specification and SEM requires complete specification of the measurement model (Hair et al., 2014).

In the SEM analysis, the decision was made not to split the sample in half to use half to improve the model and the other half to validate the model because: (a) the improvements are data driven and not theoretically supported by the theories; (b) additional analysis that included the direct paths showed that the model fit was not improved; (c) the analysis showed adequate fit for the model; (d) the misfit of the current model mostly came from the large sample size, missing correlated errors and secondary loadings (G. Cheung & Rensvold, 2001); and (e) subsets from an original common data set are quite likely to share common method variance and therefore would not be a good ‘sample’ to validate the improved model (Hurley et al., 1997). Therefore, with this in mind, although other methodological approaches are possible, for this research, the hypothesised model was considered the model that would best match with the research questions.

6.12.4 Triangulation

By studying a phenomenon through a combination of methodologies and analysis techniques, a more accurate representation of reality may be reached (Polit & Beck, 2012). This study achieved methodological triangulation by collecting both qualitative interview data and quantitative survey data. Triangulation was further achieved by including three types of analyses: general induction, regression and structural equation modelling. Through the triangulation of measurement processes the most persuasive evidence is revealed because propositions that are confirmed by two or more independent measurement processes can be interpreted with greater certainty (Webb et al., 1966).

6.13 Ethical considerations

The University of Auckland Human Participants Ethics Committee gave ethics approval for this study on 13th July 2013 (Ref 9447) (Appendix 1). A participant information sheet describing the study and listing the researcher's contact details was given to all participants of the interviews and emailed to all survey participants. Interview participants provided informed consent by signing the consent form, while survey participant consent was assumed with the completion of the questionnaire online. All participants were coded and interview transcripts, researcher's hand-written notes and participant details were stored in a locked cupboard and on password protected computers. This assured confidentiality and anonymity at all times throughout the study.

6.14 Summary

The overall study objective of developing a new model of nursing turnover in New Zealand informed the research methods described above. Firstly, the study sought to develop a comprehensive survey questionnaire by building on existing literature through the general inductive analysis of qualitative data collected from interviews with stakeholders, RNs and nurse leaders. The questionnaire was delivered to RNs across New Zealand to collect the quantitative data. The study then used regression analysis to identify those factors with the most statistically significant relationships with RN

turnover. Finally, SEM analysis sought to test the research hypotheses. The next chapter presents the results for the qualitative phase of the study.

Chapter 7: Results – The qualitative phase

It is a narrow mind which cannot look at a subject from various points of view.

George Eliot (1819 - 1880)

7.1 Introduction

The results of the study are presented in four separate chapters: (i) the qualitative phase; (ii) survey sample characteristics; (iii) the multiple regression phase; and (iv) the structural equation modelling phase. This chapter presents the results of the qualitative findings gathered from interviews. The purpose of the qualitative data gathering was to inform the development of the survey questionnaire and contextualise it within a New Zealand context. The focus of questioning was on intention to leave the profession rather than the organisation, since this represents a potential loss of knowledge and skill from the workforce.

7.2 Interview participant characteristics

Interview participant characteristics represented a diverse nursing population in terms of professional hierarchical levels, different stages of career and different areas of nursing practice, as summarised in Table 7-1. A total of 24 face-to-face and telephone interviews were conducted to gather qualitative data on the thoughts and experiences of registered nurses (RN) and RN leaders in relation to nursing retention and ensuring that New Zealand is able to meet its need for an effective and stable nursing workforce in the coming years. Of those 24 interviews, 12 were with RNs working in non-leader roles, seven in operational management roles, three in executive management roles and two with the key stakeholders, Health Workforce New Zealand (HWNZ) and Nursing Council New Zealand (NCNZ). Seven interviews were with those working within a tertiary hospital setting, 10 within a primary care or community setting, five within the residential care setting and two with the stakeholders. Each participant is represented by an alphabetical pseudonym code.

Table 7-1: Interview participant characteristics

	RN Non-leader	RN Operational Management	Executive Management
Hospital (Coding)	4 (A-D)	2 (E-F)	1 (G)
Community (Coding)	6 (H-M)	3 (N-P)	1 (Q)
Residential Care (Coding)	2 (R-S)	2 (T-U)	1 (V)
Stakeholders: 1x HWNZ, 1x NCNZ			

7.3 Thematic analysis

Raw data were entered into the qualitative data analysis computer software package NVivo 10 (2012). The general inductive approach was used to analyse the qualitative data to identify themes in the text data that were related to the research objectives. Once the data files were cleaned and put into a common format, the analysis commenced with a close reading of the text. Text segments that contained meaningful units of data were identified and coded. These lower-level codes were then organised into more general upper-level categories, which in the view of the researcher captured the core messages reported by participants. These categories were then organised again into five overarching themes. Four of the five overarching themes that developed out of the thematic analysis of the qualitative data were in line with the job demands-resources (JD-R) model as identified in the literature review. The five themes derived from the inductive approach included Job demands, Personal demands, Job resources, Personal resources and Contextual factors.

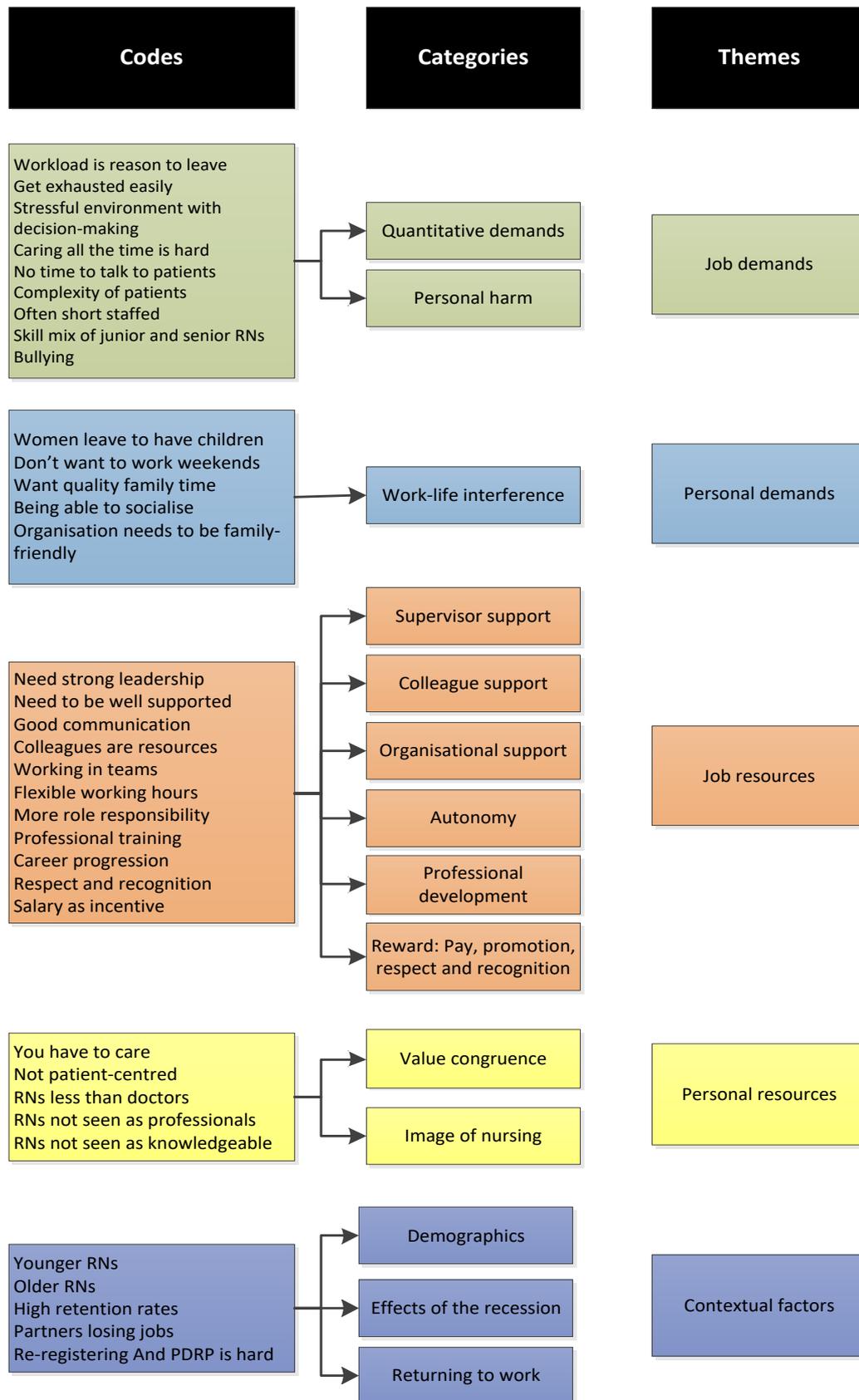


Figure 7-1: Inductive process of qualitative data

7.3.1 Job demands

This theme was developed from ten codes which constituted issues within the workplace that placed demands on RNs: workload is reason to leave; get exhausted easily; stressful environment with decision-making; caring all the time is hard; no time to talk to patients; complexity of patients; often short staffed; skill mix of junior and senior RNs; and bullying. The resulting categories were: *quantitative demands* and *personal harm*.

Quantitative demands

A consistently heavy workload increases job stress and decreases job satisfaction (L. J. Hayes et al., 2006). Although workload can be considered a challenging demand and therefore can be associated with positive outcomes, the RNs interviewed reported their heavy workloads as a hindrance. Almost all the participants discussed consistently heavy workloads that led to stress and feeling burnt out by the end of the shift. Participants identified this as a reason for RNs to leave the profession. One RN commented:

A reason to leave would be workload. Like in ED, it's constantly heavy, there are never any light days and you're constantly all go from when you start to when you finish and you can get quite exhausted quite easily. (B. RN, Hospital).

Another noted the link between workload, decision-making and stress:

I know for me and most of the nurses I've spoken to, having a heavy workload seems to be the biggest challenge. It can be a stressful environment with some of the decision-making because of the type of issues we're dealing with. (P. RN, Community).

Another referred to the emotional challenges of a caring profession:

People might leave due to burnout, because caring all the time is hard and you need some mechanisms to cope. (A. RN, Hospital).

Participants in managerial roles discussed their concerns regarding the impact increasing workloads are having on the ability of RNs to develop therapeutic relationships with patients:

Nurses frequently tell me that they don't have that time to sit down and talk to patients. You can talk to them while you're doing things, while you're taking them to the toilet, while you're mobilising them, but that one to one and just sitting down and saying I have time for you, tell me about this, tell me about how you're feeling, is an added value nice to have, but isn't there necessarily. (E. Operational Management, Hospital).

I think sometimes our systems and the health systems can focus on paper work, paper work, politics, politics and you just need to take that systematic approach and make sure that at the end of the day the patient is the centre of everything that is happening in the hospital and I think where hospitals have done that they get better retention. (I. Operational Management, Residential Care).

Healthcare organisations are under constant pressure to increase efficiency and productivity, which can lead to higher patient-nurse ratios (Dotson et al., 2014). Many of the participants discussed issues of inadequacy with staffing levels. For example:

There never seems to be a day when you're fully staffed so you're always playing catch up and I don't think you're doing your job effectively because you're always compensating for something else. (C. RN, Hospital).

I think the main thing is around the resourcing. That's the biggest pressure point, that they're under so much pressure they can leave at the end of the day not knowing if they've done everything they should have. (N. Operational Management, Community).

One participant described how a shift to a larger new building resulted in staff turnover because staffing levels were not adjusted to suit the increased demand due to the larger space:

We've had a turnover since we moved into the new building...we haven't had an increase in staffing to cope with the increase in single rooms and the amount of surveillance you have to do. So we have had turnover, the perception is the grass is greener somewhere else. (F. Operational Management, Hospital).

Some talked of the need for better backfill for annual leave, sick leave and study days:

They keep harassing the charge nurses to sort out the annual leave of their staff and then they don't give them enough staff to cover all the annual leave! (I. RN, Community).

I know the hospital tries to cover staffing shortages where they can but really there's just no rule. Like you've got agency nursing that's pretty good at supplying people but they can never supply everybody. (B. RN, Hospital).

It's still quite tight in terms of staffing, so if everything goes to plan and everyone's well then it's fine, but if people are unwell you often are not covered for backfill and that's where you start to see all the added pressures build up. So we need work around the resourcing, sick leave and annual leave replacement. (P. Operational Management, Community).

Participants expressed concerns regarding the skill mix of senior and junior RNs, as well as New Zealand and overseas trained RNs.

We'll often have one senior nurse working with a lot of junior nurses and quite a lot of new grads, so you might look at the staffing and think we've got a good number of nurses on but if you look at the years of experience it's really not that great. (C. RN, Hospital).

Things that would give better satisfaction would be better staffing ratios of NZ to overseas nurses. They don't always stack up very well. (I. RN, Community).

These comments highlight issues of heavy workloads contributing to stress and the inability to develop relationships with patients, as well as inadequate patient-nurse ratios and skill mix.

Personal harm

A significant positive relationship exists between the amount of abuse RNs are subjected to by patients and/or colleagues and intention to leave (Sofield & Salmond, 2003). A survey of RNs by the NZNO reported that 44 percent of respondents thought bullying was a problem in their area of practice (New Zealand Nurses Organisation, 2013). The issue of bullying between RNs themselves and between management and RNs was identified by over half of the participants. Many discussed a culture of 'horizontal violence' which they believed contributed to RNs leaving the profession.

I think nursing is notoriously known for bullies and I've experienced it myself, you know, nurses are their own worst enemies. (J. RN, Community).

Bullying is everywhere. I almost left nursing myself 6-7 years ago and I'm a strong personality, because of the bullying. Bullying comes in many forms, it doesn't mean someone has to stand in your face and shout at you and there is a lot of bullying in nursing. We do eat our young. (E. Operational Management, Hospital).

I imagine it's a bit like domestic violence, you know how kids who were abused when they were young abuse when they're older and the cycle continues. I think the cycle of bullying continues in nursing, until somebody steps in and breaks the cycle. (D. RN, Hospital).

When women leave nursing at the age of fifty... Is it because there's too much horizontal violence? Is it the abusive nature of the nursing hierarchies? (Stakeholder, HWNZ).

Some thought bullying was being identified but not dealt with:

One of the things that really restricts nurses is the way they get treated. Within the DHB there's a lot of bullying that is identified but not treated and so if people don't get treated fairly as a health professional they tend not to get the satisfaction. (A. RN, Community).

...and others discussed potential ways of dealing with the issue:

You need to have expectations around the cultural environment and the behaviour within that environment so that you clearly don't have a tolerance of poor unsupportive derogatory negative behaviours and that you expect another level of behaviour and if you don't get that then there is a process and there are some consequences for that. (F. Operational Management, Hospital).

In nursing there is no standard of who is going to be the next manager or leader and they often go in there ill-equipped to deal with inherent bullying that's been going on in wards for sometimes decades. So we need a proper structure and education needs to be in there somewhere. I think if you sorted out the shifts and the bullying they'd (nurses) be much happier. (E. Operational Management, Hospital).

These statements identify bullying as a pertinent issue in nursing that requires addressing.

7.3.2 Personal demands

This theme was derived from five codes regarding interference between work life and personal life: women leave to have children; don't want to work weekends; want quality family time; being able to socialise; and organisation needs to be family-friendly. This lead to the category of *work-life interference*.

Work-life interference

Few studies have investigated the relationship between work-life interference and occupational turnover (van der Heijden et al., 2009). For many RNs there exists the

need to combine work and family demands and with the proliferation of dual-career couples, balancing work and home responsibilities has become increasingly difficult, leading to the occurrence of work-life conflict. Evidence indicates that work-life interference is associated with poorer work outcomes, in terms of organisational commitment, job satisfaction, turnover, absenteeism and stress reactions (Greenhaus & Beutell, 1985; Greenhaus et al., 1997; Kossek & Ozeki, 1998; Luk & Shaffer, 2005; Netemeyer et al., 1996).

Many participants discussed how nursing remains a predominantly female workforce, resulting in complications around childrearing and working. For example:

It's mainly women, who see it as their job until they have children, so they're going to leave then. (C. RN, Hospital).

Nursing is what they do until they start getting married and having kids and become part time, so nursing becomes a small part of what they do. (I. RN, Community).

You have to manage home and you have to manage your work. You are a mother and if one of your children is sick it can be a big weight because your work is compromised. (S. RN, Residential care).

The only time I'd probably leave is children, getting pregnant and the first five years before school. But even during that time I will probably just reduce my hours instead of leaving totally. (K. RN, Community).

I don't want to work weekends because I've got family and they're at school all week and if I'm away all weekend we don't have any quality family time. (B. RN, Hospital).

There are enormous pressures on people to manage really big and busy jobs and to manage home lives because the society and culture in which people live hasn't moved pace with acknowledging that women who work actually need help. (Stakeholder, NCNZ).

In terms of staff leaving, it's not being family friendly. We say the organisation is family friendly, but it isn't because we don't have the capacity. (M. RN, Community).

Another pointed out that work-life balance was equally important for those who did not have children:

Just being able to socialise your life and plan around whatever the charge nurse deems your next roster to be. It doesn't matter whether you have your own family or not because people who don't have family also have a life and friends. People forget that. (E. Operational Management, Hospital).

These comments highlight the increasing need for employees to work in environments that support work-life balance.

7.3.3 Job resources

This theme developed from 11 codes regarding factors that's RNs considered important resources at work: need strong leadership; need to be well supported; good communication; colleagues are resources; working in teams; flexible working hours; more role responsibility; professional training; career progression; respect and recognition; and salary as incentive. This lead to six categories: *supervisor support, colleague support, organisational support (family-friendly practices), autonomy, professional development and reward (pay, promotion, respect and recognition).*

Supervisor support

Research findings continue to support the importance of management in creating a positive work environment. Research has shown that employees with supportive supervisors are more satisfied with their work and are more inclined to stay in their job (van der Heijden et al., 2009). This is in line with the JD-R model which suggests a high quality relationship with one's supervisor may alleviate the influence of job demands on job strain, since leaders' appreciation and support puts demands in another perspective. Almost all the participants discussed the importance of effective leadership and relationships with managers.

I think you need to have good strong leadership that has a collective vision towards the commitment to supporting and progressing nursing. (F. Operational Management, Hospital).

Early on in the profession it's often the disenchantment that comes with not being well supported. Nurses often expect our young to hit the floor running and we don't cut them a lot of slack. So I think we lose some there. (Stakeholder, NCNZ).

It needs to start at the top with the managers, who need to be passionate about what they do and share their knowledge and skills, rather than it being a very hierarchical structure. (P. Operational Management, Community).

My view is that people leave jobs mainly because of bosses, they leave because they don't like their colleagues, they don't like the person they work for. What I find is if they can work well with their manager and their clinical lead, that will be their first source of support. (I. Operational Management, Residential Care).

They will leave if they feel like they haven't been given the right opportunities or been able to spread their wings and show what they've learnt if the charge nurse won't let them. So the role of the Charge Nurse is pivotal into about just everything we can do. (Q. Executive Management, Community).

Many of the participants talked about how they thought nurse leadership needed more development. For example:

I think it would be really good to have more nurse mentor figures that people could go to and obviously they'd have to be people who weren't so overloaded with work that they'd have more time. A lot of nurses are not getting the support and education and mentorship they need. (H. RN, Community).

What nursing should be doing is harnessing good leaders who makes things work well on the floor or who make a difference at a more managerial level and finding out from them what they do that keeps staff. (F. Operational Management, Hospital).

We need to grow nursing leadership. We need to be confident and comfortable in our own skin and I think sometimes we default to doctors for comments. (G. Executive Management, Hospital).

These statements identify effective supervisor leadership as a critical factor in the retention of RNs and suggest there is an existing need for improved leadership.

Colleague support

Work group cohesion refers to the extent to which employees are supportive of one another and work together to achieve goals (J. Cohen et al., 2009). Social support is thought to enable people to better cope with demanding work situations because, as a consequence, they feel valued and are enmeshed in a network of communication and mutual obligation (Frese, 1999). In addition, social support at work has been positively related to well-being and performance and negatively related to stress reactions, burnout and absenteeism (Frese, 1999). Comments of participants addressed the importance of having good working relationships with other RNs, as well as the wider

interdisciplinary team. Many discussed how their work colleagues were one of their best resources. For example:

Communication with other work mates is always helpful and just running things past other people and seeing how they cope, or how you can work together to support each other. I think having that team support is really invaluable, so you don't feel isolated. (I. RN, Community).

Some of your resources are your colleagues that you're working with because you're always going to them if you need to know anything. (H. RN, Community).

If your colleagues are supportive and helpful and friendly and you have an environment that is positive and recognises and acknowledges people, I think that goes towards people thinking they might not leave. (F. Operational Management, Hospital).

What I think is also a great resource that nurses have but don't often use is their colleagues. So to be able to work in a team and run ideas past colleagues I think is really important. (Q. Executive Management, Community).

Another thing that nurses draw on is the comradery, the professional identity and the professional esteem and the kinship you get from other nurses. (Stakeholder, NCNZ).

Others talked of the importance of team work:

I think it's about valuing each other and working as a team, which is easier to do in a smaller team environment. (O. Operational Management, Community).

You need to work with nurses to get them to work as a team. You've got to have them working as a team so that they care for each other. Because if there's no caring, very quickly people lose interest and move on. (P. Operational Management, Community).

The satisfaction that I think individuals get of working in a team of like-minded people who have a collective goal to make a difference to patients drives them to wanting to come back in. (Q. Executive Management, Community).

These comments establish the importance of colleague support and working in teams as a work resource for RNs.

Organisational support (family-friendly practices)

Working long shifts, overtime, weekends, nights and holidays have been found to be predictors of anticipated turnover (Shader, Broome, Broome, West, & Nash, 2001). Flexibility in working schedules is commonly cited as an important retention factor for RNs. Many participants discussed the implications of shift work and working unusual hours. It was particularly important that hours of work fitted in with family life. For many, having flexibility in their working hours was a reason to work in nursing:

For me it's all about the flexibility, the fact that I can do the hours that suit me, obviously to fit in with family. I've got two kids. (A. RN, Hospital).

I've been mostly full time, I was only part time for a little while because of study. And then I didn't mind the shift work because it worked out good. (H. RN, Community).

If you give people the hours that suit them, people stay longer. (N. Operational Management, Community).

For others, the challenges of shift work and unusual hours were reasons to consider leaving the nursing profession:

A reason to leave would be working hours that don't necessarily fit with your family or the rest of your life. Like as much as possible you can request shifts, but it's quite a big ask to do shifts where you don't see your family for four to five days on-end because you're working in the afternoon and they're out during the day. (C. RN, Hospital).

I know of other ladies who have left to have families and they couldn't cope with the shift work. (I. RN, Community).

I think you get to a stage where shift work isn't doable. For some people it's a real struggle. It is really hard with family life and it's hard to keep well if you're doing shift work all the time, so I think at that point that's when a lot of the decision making comes. There are limited jobs that aren't shift work... and that's when they'll look at moving out of the organisation or even move onto other careers. Like for some reason often real estate is quite popular with nurses. (P. Operational Management, Community).

Some thought there was now more flexibility within nursing:

In terms of family life, I think there's more flexible working hours than there used to be and more recognition of family. But then at the end of the day you have to staff an organisation, you have to have people there to do the work so there are still difficulties around that. (O. Operational Management, Community).

...while others thought that there was currently not enough flexibility in nursing and that this needed to be reviewed:

I think people are looking more for flexibility...Yes their job is important but they do have other things happening that are also important in their lives, so having a bit of understanding about that kind of thing as well. Every now and then my manager looks at me and rolls her eyes if I do a six hour shift and I can see her thinking, "Well why did you bother coming in?" And so you think to yourself, well maybe I won't come in next time. (D. RN, Hospital)

The Nursing Council are trying to get rid of 12 hour shifts and in a place like NICU, like a lot of the girls in intensive care love that because they work full time but only three days a week. (A. RN, Hospital).

We could keep the older nurses we've got if we were a little more flexible about what they could do. I know a lot of nurses who would like to reduce their hours. (U. Operational Management, Residential Care).

I was able to keep working because I worked five till eleven which meant that my husband could get home and take over looking after the children without us having to pay childcare. There doesn't seem to be that same level of flexibility in the workforce today. (Stakeholder, NCNZ).

The majority of comments indicated that there still is not enough flexibility of working hours in nursing to accommodate those with families and those older RNs wanting to reduce their hours.

Autonomy

Autonomy refers to the degree to which RNs can make independent decisions and self-manage their delivery of care. Having a sense of autonomy consistently predicts job satisfaction (C. T. Kovner, Brewer, Green, & Fairchild, 2009) and is directly related to intention to stay (D. K. Boyle et al., 1999; T. Cowden, Cummings, & Profetto-McGrath, 2011; Tai et al., 1998). In the JDR model, job autonomy can be crucial for employee health and wellbeing because greater autonomy is associated with more opportunities to cope with stressful situations (Karasek, 1998). The emphasis on autonomy came through regularly in the interviews, for example:

If you've got more responsibility and autonomy in your roles you're going to have a lot more self-worth than a place where the GPs treat you more like a hand maiden than a skilled worker. (K. RN, Community).

If I was still a Charge Nurse I would want to make sure people are happy in their workplace by letting them have a little bit of autonomy so that they get to bring ideas into the clinic. (M. RN, Community).

This shows that many RNs want more responsibility in their roles, which may lead to improved job satisfaction and intention to stay in their jobs.

Professional development

Career development within the organisation has shown to promote job satisfaction (L. J. Hayes et al., 2006; H. Lu et al., 2005) and have a significant relationship with retention (Borda & Norman, 1997; McCarthy et al., 2007). The importance of ongoing professional development was discussed by almost all the participants. Many referred to the need for RNs to keep up to date with their skills and knowledge, suggesting that this would likely result in RNs who were able to think critically and who were more empowered and engaged in their work:

I think professional development is really important and keeping nurses interested. (L. RN, Community).

Knowledge is a good resource, so if you're doing ongoing study and getting tips on how you can do things better or on new things that come out, that's probably helpful because it helps with the decision making and the management of your role, so ongoing education is a really good thing. (H. RN, Community).

I think our nurses today need a lot more critical thinking skills, intellect, be speedy of thought and able to adapt. (Stakeholder, NCNZ).

One suggested that ongoing education was essential because the standards in nursing had been raised:

We used to have a lot of part-time nurses who worked just to fill in a few extra hours to add to the mortgage. We're now asking those nurses to do more than that such as portfolios and improvements, so the standards are pretty high. (G. Executive Management, Hospital).

Some discussed how many RNs found ongoing education challenging:

You get people who stay in jobs who really should move on and once they've been in a job for a really long time it's hard to make people change and do things a little bit differently. Primary care is constantly changing and you need to keep up with the times, but there are people out there who don't want to keep up, they just aren't passionate, they're just there. (O. Operational Management, Community).

Our nurses need to keep up to date with their assessment skills. Nursing has moved a lot from what it was twenty years ago and not all nurses have kept up. So in the past nurses weren't allowed a hint of a diagnosis, but now we're accepted to do diagnostic reasoning. So that's an issue. (V. Executive Management, Residential Care).

The knowledge world is growing so fast, it's a dynamic profession, it's not something you just do and it's always going to be the same so there's that need to be incredibly flexible and always learning, I think that's a challenge. (Stakeholder, NCNZ).

Others suggested that the opportunity for ongoing education was greater in the acute setting than the primary care setting:

There's also so much more opportunity in the hospital acute setting. For me as a beginning nurse I'd rather work in the hospital and get over the shift stuff instead of starting in the community and miss the acuity of what's here. (A. RN, Hospital).

I don't think there is the same availability of education in primary care as there is in the hospital. There are courses going all the time but you don't have the same opportunities for the variety that there is at the hospital. (N. Operational Management, Community).

Nursing continues to evolve into a profession requiring increasing levels of knowledge and skills and these comments highlight the need for ongoing education and training. Some participants thought this ongoing professional development was desired by RNs, while others thought many RNs resist it.

Pay

This category was developed from comments regarding the extrinsic reward of pay. In 2011, the NZNO found that while a modest pay settlement was secured in 2010, tax changes and continuing inflation in all areas, combined with a perception of having to work harder for less reward meant pay was a significant area of discontent for many RNs (New Zealand Nurses Organisation, 2011). This was reflected by many of the interview participants:

The salary is a lot better than it was but several years ago but it is was a pretty basic salary so it has to be something you really wanted to do. (P. Operational Management, Community).

If you want to make some more money, that could make you leave the nursing profession. (I. RN, Community).

I think if you need the money the motivation is always there, you kind of don't have any choice, but if you have a choice, at that point why would you do it? (A. RN, Hospital).

At the beginning it's higher than everybody else, but after 3 or 4 years it's lower than my friends who did commerce and who are working in the bank. So the step up is really slow. (K. RN, Community).

Primary care is not as well paid as the hospital. (N. Operational Management, Community).

This feedback shows that although the pay of RNs has improved, many still feel underpaid and in some primary care settings RNs feel they are unfairly paid in relation to hospital RNs.

Promotion

Promotional opportunities within the organisation are also known to promote job satisfaction (L. J. Hayes et al., 2006; H. Lu et al., 2005) and affect retention (Borda & Norman, 1997; McCarthy et al., 2007). This category was developed from comments participants made regarding their intentions to 'move up the ranks.' Promotional chances refer to the degree of potential occupational mobility within an organisation, which decreases turnover indirectly by means of positive impact on job satisfaction and organisational commitment (Price, 2001). For some participants, promotion meant progressing into higher-level nursing roles, while for others it meant moving out of nursing.

A younger participant thought they might leave nursing to move into health management:

To leave where I am now in nursing would probably be to go into a different role but still within health but maybe a role in management or education. I don't think I'd leave health

ever, but I don't think I could be on the floor for the rest of my life giving enemas. (B. RN, Hospital).

Some discussed their frustration at the pace in which they were able to progress into new roles, which they considered a potential reason for RNs to leave the profession.

I find that the ED clinical environment is quite slow to move up in the ranks. People who are in management and senior roles seem to have been there for a hundred years now and even the girls who have done their Masters have gone for roles like that and haven't made it into those roles. (B. RN, Hospital).

I work in the Newborn Unit and you have to be kind of committed to one area to earn your right to move up in the ranks and it's a bit disheartening because what if I don't want to be in the same place for ten years? (A. RN, Hospital).

It's very hard to go up, there's not many positions you can rise to I find. There's only limited spots for the nurse educators or charge nurses and most of us are staff nurses and very hard to climb up. So if they want more satisfaction they probably want to go. (H. RN, Community).

The barriers to professional development were discussed by one participant:

To become a nurse practitioner just looks too hard. There's so much hard work and it costs quite a lot. I saw that the registration costs more than a thousand. So there's quite many barriers. (M. RN, Community).

These statements show that many RNs feel frustrated at the limitations of career progression within nursing, leading them to consider alternative roles within health or other professions.

Respect and recognition

This category was developed from comments regarding the intrinsic reward of respect and recognition. Many participants addressed the importance of being respected and feeling valued. For example:

If you just treat people with a bit of respect that goes a long way and thanking people, like saying we really appreciate you've have a really hard day, because patients are getting sicker in hospital and some days are really hard, so just a bit of recognition of that is really important. (C. RN, Hospital).

It is funny that idea that if you are good at something you don't get praised for it and you should probably just keep it to yourself. I think not getting encouragement and recognition for what you bring to the table is a reason why people would leave...if they're not valued. (A. RN, Hospital).

These comments identify that RNs have a desire to feel appreciated and recognised by their superiors for the work they do with an increasingly unwell population.

7.3.4 Personal resources

This theme developed from five codes relating to factors that affected the personal resources of RNs: you have to care; not patient-centred; RNs less than doctors; RNs not seen as professionals; and RNs not seen as knowledgeable. This resulted in two categories: *value congruence* and *image of nursing*.

Value congruence

Value congruence means that the RN's values fit with those of the employer (Dotson et al., 2014). Many RNs choose nursing because of the opportunity to help others. Research has shown that an RN's sense of altruism can lead to higher satisfaction with a job and to increased behavioural intentions to stay in the profession (Dotson et al., 2014). Many participants commented on this:

I work in nursing because I enjoy working with patients and trying to make a difference in their health outcomes. (J. RN, Community).

You have to care; I think caring for patients is key. That's what patients want, to feel like they're being cared for. (D. RN, Hospital).

What motivates them (RNs) is actually making a difference. You find that a lot of nurses that work in aged care want to have a relationship with the person they're working with, which might be different from those nurses working in emergency departments. (L. Executive Management, Residential Care).

One difficulty often faced by RNs in the hospital environment is the perceived lack of congruence between the patient-centred intent of nursing and the need to meet managerial pressures. This was reiterated by some participants:

The other thing in New Zealand is the documentation. We are not patient-centred anymore. We are document-centred. (R. RN, Residential Care).

More paperwork than patient care, yep we get that all the time. (H. RN, Community).

It is therefore important that RNs feel the values of their organisation align with their desire to provide patient-centred care.

Image of nursing

Hiring the right people into nursing is critical to the retention of RNs (Dotson et al., 2014). How the nursing profession is perceived in the wider community may affect those who choose to become involved with it. For example, if a person's family regards nursing as a lowly occupation, they may not consider becoming an RN, even if they would be well-suited to it. If, however, nursing is respected as a knowledgeable and skilful profession, it may attract workers who are motivated and committed to professional excellence. Furthermore, self-image and perceived public images of having an aptitude for leadership and being caring are negatively related to intention to quit the job (Takase et al., 2006).

Many participants felt that nursing was often viewed as a lesser profession:

I feel like there's this underlying feeling in my family that I should have been more than a nurse. (C. RN, Hospital).

The whole way through my training people would ask: 'Why don't you just become a doctor?' As if being a nurse wasn't good enough. And I told myself it was because I wasn't smart enough. (A. RN, Hospital).

I think there will always be the view without people really realising it that nursing is a woman's job and I think that's always going to be there because it's mainly women who see it as their job until they have children. (B. RN, Hospital).

Nurses are still not seen as professionals and it's not a respected profession out in society. Even my own daughter has made the flippant comment to me: 'You're only a nurse.' (P. Operational Management, Community).

Sometimes our profile is not strong, like with the scientific subjects, people don't understand that you do need a very solid knowledge base and a science base to achieve in nursing. (Q. Executive Management, Community).

Some participants discussed the need to raise the profile of nursing as a knowledgeable and skilful profession:

I think we need it to be a bit more high profile in that it is a career choice as opposed to just a secondary income and to get married to doctors. (D. RN, Hospital).

The world order now is that nursing competes for school leavers in a very competitive market. There are not many professions for which women don't have at least a moderate degree of access, so nursing can no longer rely on default options. (Stakeholder, HWNZ).

The image of nursing appears to be still transitioning from the traditional perception of a 'hand-maiden' to doctors, into that of a knowledgeable and skilled professional. How people view nursing may affect who chooses to work in it and may influence how long people stay in the profession.

7.3.5 Contextual factors

This theme developed from five categories relating to additional contextual factors: younger RNs; older RNs; high retention rates; partners losing jobs; and re-registering and PDRP is hard. This resulted in the categories of *demographics (age)*, *effects of the recession* and *returning to work*.

Demographics

Individual demographic factors that are important when considering the issue of nursing retention include age, gender, number of dependents, level of education, contribution to total household income and overall health (C. Duffield et al., 2015; Holtom et al., 2008; Lynn & Redman, 2005; Maatouk et al., 2016; Nursing Council of New Zealand, 2011; Price, 2001).

Age

Many interview participants commented on how the age of RNs might affect their motivations to work. Some thought that younger RNs may be motivated by money and travel and were therefore likely to turn over more regularly:

I think the younger ones maybe don't have such a high work commitment in some ways, so they'll come, get their experience then go and probably don't have that same sense of loyalty. (N. Operational Management, Community).

The younger people might be wanting to go off and travel so they want to get enough experience to go off and do that, so they have different goals. (H. RN, Community).

Others thought that older RNs were less motivated by pay, are were challenged by the demands of work and consequently wanted to work less:

I don't think pay in the older age group is such a problem, I think people are looking more for flexibility. (D. RN, Hospital).

Often they don't realise they're not functioning at the level they were in their forties and it's physically demanding work, it's not for the fainthearted. I had a nurse who was working the night shift and I discovered she'd been using a walking frame to get around because her hips were dodgy and she was needing a hip replacement. (T. Operational Management, Residential Care).

There's probably an untapped area about women in their mid-years managing menopause, adolescent children and ageing parents and often relationship issues as well and then work just gets too hard with the demands and the constant learning that's required. (Stakeholder, NCNZ).

I think the older you are the less hours you want to do. (M. RN, Community).

Some disagreed and did not think that the age of RNs affected their working motivations:

I don't think there's any difference in the commitment. (E. Operational Management, Hospital).

I don't think there's that much difference between the older nurse and the younger nurse and what will make them stay. It's about teamwork, appreciation and appropriate workload so they can deliver care to the standard that they want to deliver and they can see that they're making a difference. (F. Executive Management, Waikato).

Most participants agreed that older RNs should continue to have an important role within nursing and that attention needed to be placed on developing more innovative roles, such as mentorship:

I'd like to see us have the courage to be innovative about how we can best use the wisdom of our older nurses without burning them out or putting them in positions where maybe the public are unsafe or they're unsafe, so using them as mentors but giving them the skills to do that effectively. (Stakeholder, NCNZ).

These results show divergent views on the role of age in nursing turnover. While some think that younger RNs may exhibit greater levels of turnover than older RNs, others believe that factors such as teamwork and workload are more significant predictors of turnover than age.

Effects of the recession

Employee perception of alternative work opportunities represents a central construct in contemporary theories of turnover (Mobley, Hand, Baker, & et al., 1979; Price & Mueller, 1981; Steers & Mowday, 1981). The hypothesis is that greater levels of perceived opportunity elsewhere will likely produce greater levels of turnover and, conversely, lower perceived opportunity elsewhere results in lower turnover.

Almost all the participants commented on the current lack of movement within the profession, which they attributed to the economic climate:

Because of the recession once you've got a good job you kind of want to stay there because you've got a stable job and you should be grateful for what you've got. Yeah it's had a huge impact. Especially for young baby nurses and not being able to move around. (D. RN, Hospital).

We've got a really high retention rate at the moment. I'd like to think it's because we've created an environment which is conducive to nurses wanting to stay in nursing and stay put, but a lot of it's to do with the financial crisis. (Q. Executive Management, Community).

Others talked about how the recession had affected families, suggesting that women increased their hours or returned to nursing when their husbands lost their jobs:

With the recession a lot of husbands were losing their jobs or their hours were reduced so suddenly there were all these nurses who had been working part time for many years suddenly increasing their hours and the whole dynamics changed. (I. RN, Community).

If they don't need to put in those amounts of hours and their husbands are back full time and have job security they probably will look at leaving. (A. RN, Hospital).

Some younger RNs talked of having more nursing friends leaving NZ to seek opportunity overseas, while others thought the recession had resulted in less opportunity abroad, therefore less attrition of RNs overseas:

I notice that they're not recruiting as many people as usual and a lot more nurses are going overseas you know. A lot of my friends in the last intake have moved to Australia and they're like 'come to Australia' because you can earn so much more money. (J. RN, Community).

I've seen less nurses go overseas or a number of them have come back sooner than they anticipated and that's been due to the financial crisis more elsewhere in the world. (U. Operational Management, Residential care).

Results indicate that the effects of the recession on nursing have resulted in less movement within the profession, with RNs increasing their hours or returning to work because their partners lost their jobs. Some participants felt more RNs were heading overseas, while others felt emigration had reduced.

Returning to work

Many of the interview participants discussed the difficulty of returning to nursing practice after time away, for instance to have children. They suggested this as an important factor for people choosing not to return to the nursing profession after an absence. Challenges included keeping up to date with changes and technologies, as well as the time and costs involved with re-registering:

I know ladies who have left and they've found it too daunting to get back in to later and they've taken similar caring roles, like care giving roles, but not in a nursing role. (L. RN, Community).

It's tough to re-register because it's the health sector, the medications, the equipment, the environment is constantly changing. A lot of things are more computerised, technologies are advancing and if you've been out of that for ten years or so it's a lot to take on. (I. RN, Community).

I think the nursing course would probably put people off, you know the course you have to do after five years off. It's expensive and time consuming. (B. RN, Hospital).

I know one lady who left because her husband's business was growing so she left to support him. And then after 5-10 years out of nursing she decided it would be too hard to get back into it. (C. RN, Hospital).

These comments indicate that many RNs are discouraged from returning to nursing due the demands of re-registration.

7.4 The relationship between the qualitative data and the models of nursing turnover

Findings from the literature review and the qualitative data were used to inform the variables that were brought into the testing of the JD-R model based on findings from the literature review, ensuring that the most important variables of employee turnover as identified by the organisational behaviour and human resource management research, as well as the nursing specific research, were included. The qualitative data collected from interviews ensured that the developed model is relevant within the current New Zealand context.

Many of the interviewees discussed concerns regarding their quantitative demands and increasingly heavy workloads, which they said led to stress, the rationing of care and the ability of RNs to develop therapeutic relationships with patients. The results confirmed that issues of RN-patient ratio and skill mix were increasing the burden of workload. Qualitative results supported the need to include the issue of personal harm as participants discussed concerns regarding bullying in the workplace. Participants further discussed the difficulty of returning to nursing practice after time away, suggesting this contributed to many RNs not returning to the nursing profession at all. The difficulty of returning to work has therefore been included as an important variable in the job demands category. The results supported the need to include the variable of work-life interference in the personal demands category.

Results from the interviews reiterated the need for positive supervisor and colleague support, as well as organisational support in the form of schedule flexibility. Professional development was also discussed as a critical issue, including the importance of ongoing professional training and opportunities for career progression.

The variables of autonomy and reward were also confirmed as important job resources. Qualitative results supported the need to include the variable value congruence in the personal resources category. Many participants agreed that there was often a perceived lack of congruence between the patient-centred intent of nursing and the need to meet managerial pressures. Further to this, many discussed the idea that a poor public image of nursing that undervalues the skill and knowledge required for the job led to challenges in recruiting the right people into the profession and may have contributed to ITL. Image of nursing has therefore been included as a variable in the personal resources category. Finally, results provided support for the need to include the demographics of RN age, as well as effects of the recession, in the contextual factors category.

7.5 Summary

Twenty-four interviews were conducted to gather qualitative data on the thoughts and experiences of RNs and RN leaders in relation to nursing retention. Data were entered into NVivo 10 and a general inductive approach was used to identify themes. Five themes were derived and various variables were then included: *Job demands*, *Personal demands*, *Job resources*, *Personal resources* and *Contextual factors*. The general inductive process of the qualitative data gathered is summarised in Table 7-1. The qualitative data analysis ensured that the survey questionnaire developed for the study contained the most important variables of RN turnover and that the comprehensive model developed for the study is relevant within the current New Zealand context. The next chapter presents the survey sample characteristics.

Chapter 8: Results – Survey sample characteristics

Well done is better than well said.

Benjamin Franklin (1706 – 1790)

8.1 Introduction

This study sought to enhance previous research on the turnover of RNs by evaluating the motivations of a large sample of RNs diverse in age, background, area of practice and level of experience. The next three chapters present the results from the quantitative findings of this study. This chapter reports the survey sample characteristics of participants.

8.2 Survey sample characteristics

A total of 2,910 RNs responded to the survey. However, not all participants completed all demographics questions. Of that sample, 334 did not complete the section of questions related to respondent characteristics. Of those who did complete this section, the sample included 2,418 women (93.9%) and 158 men (6.1%). The age of the respondents ranged from 18 to 75, with a mean age of 48.8 years (SD 11.5). The ethnicities that respondents identified with are shown in Table 8-1.

Table 8-1: Sample characteristics by age, gender, ethnicity

Characteristic	n (%)
Age	
18 to 25	96 (3.7)
26 to 35	314 (12.2)
36-45	487 (18.9)
46-55	831 (32.3)
56-65	743 (28.9)
66-75	104 (4)
n	2575
Mean (SD)	48.8 (11.5)
Gender	
Female	2418 (93.9)
Male	158 (6.1)
Total	2576
Ethnicity	
NZ European	1946 (66.9)
Other European	324 (11.1)
NZ Māori	165 (5.7)
Other (not listed)	121 (4.2)
Filipino	86 (3)
Indian	50 (1.7)
Chinese	35 (1.2)
Samoan	22 (0.8)
Tongan	14 (0.5)
Fijian Indian	11 (0.4)
Fijian	10 (0.3)
Other Pacific	10 (0.3)
Cook Islands	7 (0.2)
Total	2801

Only 28.1 percent of respondents had one or more dependent children aged under 14 years living at home. A small number (8.1%) reported having dependent adults living at home. In terms of contribution to household income, 24.6 percent of respondents contributed less than half and almost 75 percent contributed more than half. In fact, 30.2 percent of respondents were responsible for 90 to 100 percent of their total household income. The mean contribution was 64.6 percent (SD 27.6) (Table 8-2).

Table 8-2: Sample characteristics by dependent children, dependent adults, contribution to household income

Characteristic	n (%)
Dependent children <14 years old living at home	
0	1710 (71.9)
1	309 (13)
2	255 (10.7)
3	82 (3.4)
4	18 (0.8)
5	5 (0.2)
Total	2379
Mean (SD)	0.5 (0.9)
Dependent adults living at home	
0	2359 (91.9)
1	164 (6.4)
2	36 (1.4)
3	6 (0.2)
4	1 (0.1)
Total	2566
Mean (SD)	0.3 (3.3)
Contribution to household income	
<10%	44 (1.6)
10-29%	182 (6.9)
30-49%	418 (16.1)
50-69%	754 (29.1)
70-89%	400 (15.5)
90-100%	778 (30.2)
Total	2576
Mean (SD)	64.6 (27.6)

The highest education levels were Bachelor of Nursing (29.3%), Postgraduate Certificate (25.7%) and RGON Hospital Trained (12.3%). Most respondents (44.5%) reported feeling that their health was about the same as their colleagues, while 13.3 percent felt it was slightly or much worse and 42.1 percent felt it was slightly or much better. A total of 78.8 percent had registered in NZ (Table 8-3).

Table 8-3: Sample characteristics by education level, health, registered in NZ

Characteristic	n (%)
Education level	
RGON (Hospital trained)	316 (12.3)
Bachelor of nursing/Other nursing degree	755 (29.3)
Graduate certificate	39 (1.5)
Postgraduate certificate	662 (25.7)
Plunket certification	14 (0.5)
Diploma in nursing	227 (10.8)
Advanced diploma in nursing studies	165 (6.4)
Bachelor with honours	60 (2.3)
Masters	279 (10.8)
PhD	9 (0.3)
Total	2526
Health compared to colleagues	
1. Much worse	50 (1.9)
2. Slightly worse	293 (11.4)
3. About the same	1147 (44.5)
4. Slightly better	660 (25.6)
5. Much better	426 (16.5)
Total	2576
Mean 3.4 (SD 1.0)	
Registered in New Zealand	
Yes	2030 (78.8)
No	546 (12.2)
Total	2576

Most respondents (95.3%) were currently working within the nursing profession, with 55.4 percent reporting their job title as Registered Nurse (Table 8-4).

Table 8-4: Sample characteristics by employment situation, job title

Characteristic	n (%)
Employment situation/FTE	
Employed, working as RN	2454 (95.3)
Employed, maternity leave	31 (1.2)
Student	4 (0.2)
Not employed (unemployed, career break, retired)	46 (1.8)
Employed outside of nursing	41 (1.6)
Total	2576
Current job title	
Registered Nurse/Staff Nurse	1426 (55.4)
Charge Nurse/Manager	195 (7.6)
Clinical Nurse Specialist	172 (6.7)
Community Nurse	62 (2.4)
Director of Nursing	8 (0.3)
District Nurse	42 (1.6)
Educator/Researcher/Lecturer/Tutor	69 (2.7)
Māori and Iwi Nurse	7 (0.3)
Mental Health Nurse	37 (1.4)
Pacific Island Nurse	1 (0.1)
Practice Nurse	202 (7.8)
Public Health Nurse	37 (1.4)
Nurse Practitioner	9 (0.3)
Service Manager	29 (1.1)
Other (not listed)	280 (10.9)
Total	2576

The highest reported DHB employers were Auckland (14.1%), Waikato (7.6%) and Capital and Coast (7.6%) (Table 8-5).

Table 8-5: Sample characteristics by DHB

Characteristic	n (%)
Current DHB	
Northland	108 (4.2)
Waitemata	209 (8.1)
Auckland	326 (14.1)
Waikato	197 (7.6)
Counties Manukau	174 (6.8)
Lakes	46 (1.8)
Bay of Plenty	134 (5.2)
Tairāwhiti	23 (0.9)
Hawkes Bay	104 (4)
Taranaki	55 (2.1)
Mid Central	125 (4.9)
Whanganui	36 (1.4)
Capital and Coast	195 (7.6)
Hutt Valley	75 (2.9)
Wairarapa	25 (1)
Nelson	86 (3.3)
West Coast	27 (1)
Canterbury	360 (14)
Otago	70 (2.7)
Southern DHB	137 (5.3)
Total	2512

Most respondents worked in a DHB setting (58%). A total of 12.3 percent were working in primary healthcare, 8.5 percent in a medical area of practice, 8.4 percent in mental health and 7.2 percent in perioperative care (Table 8-6).

Table 8-6: Sample characteristics by employment setting, area of practice

Characteristic	n (%)
Current employment setting	
DHB	1494 (58)
Government agency	27 (1)
Māori health provider	26 (1)
Nursing agency	15 (0.6)
Pacific health provider	8 (0.3)
Primary healthcare/Community service	401 (15.6)
Rest home/Residential care	204 (7.9)
Rural	29 (1.1)
Self-employed	29 (1.1)
Private hospital	140 (5.4)
Other (not listed)	203 (7.9)
Total	2576
Current area of practice	
Assessment and rehabilitation	89 (3.5)
Child health (incl. neonatal)	149 (5.8)
Continuing care	120 (4.7)
District nursing	66 (2.6)
Emergency and trauma (%)	150 (5.8)
Family planning/Sexual health/Intellectual disability	14 (0.5)
Intensive care/Cardiac care	150 (5.8)
Medical (incl. educating patients)	219 (8.5)
Mental health (incl. addiction services)	216 (8.4)
Nursing administration and management	114 (4.4)
Nursing education	60 (2.3)
Nursing professional advice/Policy	22 (0.9)
Nursing research	9 (0.3)
Obstetrics/Maternity	21 (0.8)
Occupational health	31 (1.2)
Palliative care	93 (3.6)
Perioperative care	185 (7.2)
Primary healthcare (incl. practice nursing)	318 (12.3)
Public health	42 (1.7)
School health	17 (0.7)
Surgical	245 (9.5)
Youth health	11 (0.4)
Other (not listed)	230 (8.9)
Non-nursing role or not employed	4 (0.2)
Total	2575

Approximately 50 percent of respondents were working less than 35 hours per week, 47.6 percent were working between 35 and 50 hours and 2 percent were working more

than 50 hours per week. The mean for hours of work per week was 33.9 hours and the median was 34 (SD 9.68). Highest reported reasons for working part-time were better work-life balance (32.1%), to care for dependent children (30.3%) and to phase in retirement (6.5%). Years of tenure ranged from less than one to 45, with a mean tenure of 7.1 years (SD 6.97). Just over half of the respondents (53.2%) had worked in their role for five years or less (Table 8-7).

Table 8-7: Sample characteristics by hours of work per week, reason for part-time work, tenure

Characteristic	n (%)
Hours of work per week	
<35	1297 (50.3)
35-50	1227 (47.6)
>50	52 (2)
Total	2576
Mean (SD)	33.7 (9.9)
Reason for part-time work	
To care for dependent children	239 (30.3)
To care for dependent adults	8 (1)
Don't need the money	10 (1.3)
Personal health reasons	33 (4.2)
To study	22 (2.8)
To also work in another profession	29 (3.7)
Better work-life balance	253 (32.1)
To phase in my retirement	51 (6.5)
Other (not listed)	144 (18.3)
Total	789
Tenure (years)	
<1	151 (6.4)
1-5	1104 (46.8)
6-10	574 (24.4)
11-20	401 (17.1)
21-30	107 (4.4)
>30	26 (1.8)
Total	2363
Mean (SD)	8 (41.6)

8.3 Summary

Almost 94 percent of respondents were female, with a mean age of 48.8. The majority identified as New Zealand European, however a broad range of ethnicities are

represented in smaller numbers. Approximately 28 percent had children less than 14 years old living at home, while just over eight percent had responsibilities caring for older adults at home. The mean contribution to household income was almost 65 percent, with over 75 percent contributing more than half the total income. The majority of respondents felt their health was the same as or better than their colleagues. Nearly 80 percent first registered in New Zealand. Over 95 percent were currently working in the nursing profession, almost 60 percent within a DHB setting. The mean hours of work were just under 34 per week and the main reasons for working part-time were to achieve better work-life balance and to care for dependent children. The next chapter reports the regression data analysis.

Chapter 9: Results – regression phase

What nature hath joined together, multiple regression analysis cannot put asunder.

Richard E. Nisbett (2015)

9.1 Introduction

The study aimed to explore which variables are the strongest predictors of RN intention to leave the organisation (ITLO) and intention to leave the profession (ITLP). The literature review chapters (chapter 2 and chapter 3) led to the development of two research questions as well as several hypotheses (chapter 4) that address the link between the independent variables and intention to leave directly and through the mediating roles of burnout and engagement. Prior to conducting the structural equation modelling analysis on the independent variables with theoretical links to the job demands-resources (JD-R) model, a method of parsimonious model building through multiple regression was used to evaluate all the independent variables included in the survey. This is a useful method for exploring the complex contextuality of the study and identifying which factors, particularly those that may not have a theoretical link to the JD-R model, should receive the most focus from policy makers and practitioners. The data were first analysed with linear regression, from which the most statistically significant independent variables were put into two multiple regression models, one for ITLO and one for ITLP. This chapter reports the results of the regression analyses.

9.2 Regression analyses

Regression helps to identify the best combination of predictors of the dependent variable (Mertler & Vannatta, 2002). In parsimonious model-building, the aim of the analysis is the selection of a subset of ‘important variables’ that impact on the outcome (Royston & Sauerbrei, 2008). This technique was used to explore the significance of survey items in relation to the research questions to determine which relationships were most statistically significant. The statistical software package SPSS was used. Firstly, linear regression was carried out to test the relationship between each

independent variable with each dependent variable. Secondly, those variables identified as having a practical effect size on the dependent variables were used to conduct two multiple regression models for two outcomes, one for ITLO and one for ITLP. Since the sample size ($N = 2,910$) is very large, for most statistical tests employed, any trivial difference may result in statistically significant results. Hence, for certain statistical analysis the study will also examine the effect size to determine practical significance. Researchers should be concerned with estimating effect sizes in addition to the outcomes of significance testing (Fan & Konold, 2010; R. B. Kline, 2013).

9.2.1 Linear regression

The results of the linear regression of all independent variables are listed in Table 9-1. For all continuous variables, the R^2 is considered in order to examine practical significance. One-way ANOVA was performed on all categorical independent variables, which, rather than reporting the R^2 , reports the eta-squared (Richardson, 2011). Moderate effect sizes greater than 0.13 were considered statistically significant (J. Cohen, 1988). The independent variables that had at least a moderate effect on ITLO were: job satisfaction ($R^2 = 0.286$), burnout ($R^2 = 0.252$), engagement ($R^2 = 0.172$), work-life interference ($R^2 = 0.133$), organisational support ($R^2 = 0.116$), personal harm ($R = .141$) and value congruence ($R^2 = 0.128$). The independent variables that had at least a moderate effect on ITLP were: career orientation ($R^2 = 0.242$), job satisfaction ($R^2 = 0.289$), burnout ($R^2 = 0.206$) and engagement ($R^2 = 0.256$), and 'will return to NZ to work' (eta-square = 0.130).

Table 9-1: Linear regression analysis

Factor	Q1: Factors that contribute to RNs wanting to change job within nursing (ITLO)		Q2: Factors that contribute to RNs wanting to the nursing profession (ITLP)	
	Beta (β)	R-squared (R^2)	Beta (β)	R-squared (R^2)
<i>Continuous variables</i>				
In last five years, I returned to profession for the money	0.145***	0.021	0.118***	0.014
In last five years, I increased hours of work for the money	0.199***	0.040	0.085***	0.007
Partner's income decreased in last five years	0.092***	0.008	-0.008	0.000
Partner's income likely to increase in coming years	0.054**	0.003	-0.007	0.000
Will reduce hours if finances improve	0.271***	0.073	0.248***	0.061
Will leave profession if finances improve	0.178***	0.032	0.346***	0.120
Perception of labour market	0.102***	0.010	0.023	0.001
Career orientation	-0.238***	0.057	-0.492***	0.242
Hard to return after less than 5 years absence	0.137***	0.019	0.072***	0.005
Hard to return after more than 5 years absence	0.091***	0.008	0.050**	0.003
Image of nursing	-0.161***	0.026	-0.294***	0.086
Job satisfaction	-0.535***	0.286	-0.537***	0.289
Quantitative demands	0.329***	0.108	0.269***	0.073
Burnout	0.502***	0.252	0.454***	0.206
Emotional demands (hindrances)	0.196***	0.038	0.118***	0.014
Emotional demands (challenges)	0.071***	0.005	-0.010	0.000
Engagement	-0.414***	0.172	-0.506***	0.256
Work-life interference	0.365***	0.133	0.268***	0.072
Supervisor Support	-0.303***	0.092	-0.211***	0.045
Colleague Support	-0.152***	0.023	-0.155***	0.024
Organisational Support	-0.340***	0.116	-0.265***	0.070

Note: * = $p < 0.05$ (two-tailed test), ** $p = < 0.01$ (two-tailed test), *** = $p < 0.001$ (two-tailed test), β = standardised beta, R^2 = R-squared

Table 9-1: Linear regression analysis (continued)

Factor	Q1: Factors that contribute to RNs wanting to change job within nursing (ITLO)		Q2: Factors that contribute to RNs wanting to the nursing profession (ITLP)	
<i>Continuous variables</i>	<i>Beta (β)</i>	<i>R-squared (R^2)</i>	<i>Beta (β)</i>	<i>R-squared (R^2)</i>
Family-friendly practices	-0.142***	0.020	-0.159***	0.025
Personal harm	-0.376***	0.141	-0.303***	0.092
Professional development	-0.281***	0.079	-0.278***	0.077
Reward	-0.346***	0.120	-0.324***	0.105
Autonomy	-0.263***	0.069	-0.253***	0.064
Value Congruence	-0.358***	0.128	-0.281***	0.079
PsyCap (self-efficacy)	-0.143***	0.020	-0.201***	0.040
Age	-0.208***	0.043	-0.106***	0.011
Dependent children under 14 years	0.083***	0.007	0.052**	0.003
Dependent adults	0.029	0.001	-0.010	0.000
Contribution to household income	0.013	0.000	-0.030	0.001
Health status	-0.109***	0.012	-0.109***	0.012
Tenure	-0.135***	0.018	-0.045	0.002
<i>Categorical variables</i>	<i>Eta-squared</i>		<i>Eta-squared</i>	
Will leave NZ to work	0.075		0.034	
Will return to NZ to work	0.022		0.130	
Gender	0.000		0.001	
Ethnicity	0.014		0.008	
Education level	0.010		0.009	
First registered in NZ	0.000		0.001	
Employment situation	0.009		0.004	
DHB	0.015		0.022	
Employment setting (e.g. PHC)	0.021		0.009	
Area of practice	0.015		0.014	
Job title	0.027		0.014	
Hours of work/FTE	0.029		0.027	
Reason for part-time	0.051		0.009	

Note: * = $p < 0.05$ (two-tailed test), ** $p = < 0.01$ (two-tailed test), *** = $p < 0.001$ (two-tailed test), β = standardised beta, R^2 = R-squared

9.2.2 Multiple regression

The independent variables identified through the linear regression analysis as having at least a moderate effect size were entered into two multivariate regression models, one for the independent variable ITLO and the other for the independent variable ITLP.

Intention to leave the organisation

The variables identified as having a statistically significant effect on ITLO are summarised in Table 9-2. The multiple regression model for ITLO explains 35 percent of the variance in ITLO. The variables that are statistically significant in predicting ITLO are job satisfaction ($p = <0.001$), burnout ($p = <0.001$), work engagement ($p = <0.05$) and work-life interference ($p = <0.001$). The variables of organisational support ($p = 0.076$), personal harm ($p = 0.235$) and value congruence ($p = 0.060$) are not considered statistically significant when all the variables included in the model are considered. The standard error (S) represents the average distance that the variable falls from the regression line, therefore smaller values indicate a better fit to the regression line.

Table 9-2: Multiple regression analysis - ITLO

Factor	Q1: Factors that contribute to RNs wanting to change job within nursing (ITLO)		
	Beta (β)	Standard error (S)	P-value (p)
Job satisfaction	-0.303	0.020	<0.001
Burnout	0.190	0.040	<0.001
Work engagement	-0.043	0.043	<0.05
Work-life interference	0.092	0.040	<0.001
Organisational support	-0.038	0.024	0.076
Personal harm	-0.025	0.045	0.235
Value congruence	-0.041	0.027	0.060
R-squared	0.345		

Job satisfaction ($\beta = -0.303$) has the greatest strength of association with ITLO when the other variables are taken into account. For every unit increase in job satisfaction there is a 0.303 decrease in ITLO. In other words, as levels of job satisfaction increase,

levels of ITLO decrease (Figure 9-1). All reported error bars represent one standard deviation and data labels represent the number of respondents.

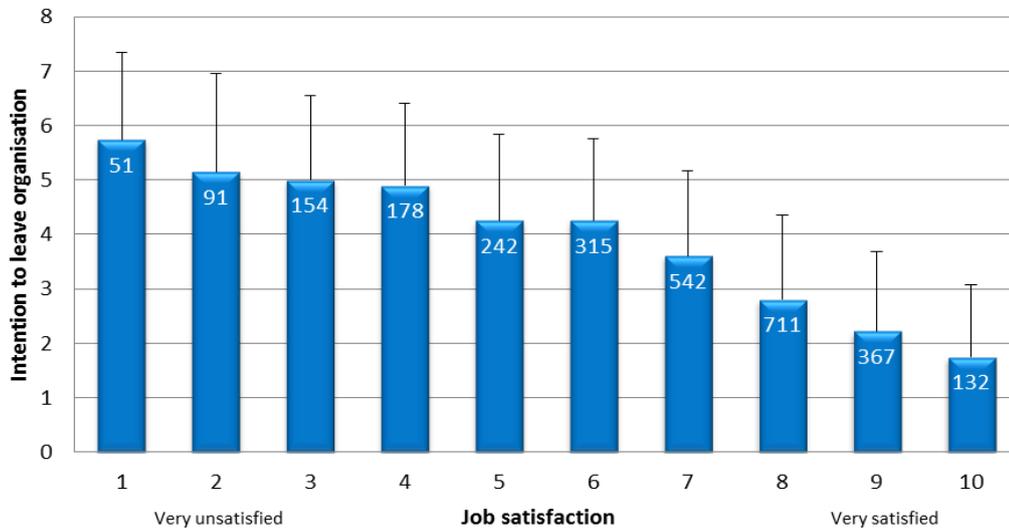


Figure 9-1: ITLO and job satisfaction (error bar = 1SD)

Burnout ($\beta = 0.190$) has the second greatest strength of association with ITLO, where for every one unit increase in burnout there is a 0.190 increase in ITLO. Therefore, as burnout increases so too does ITLO (Figure 9-2).

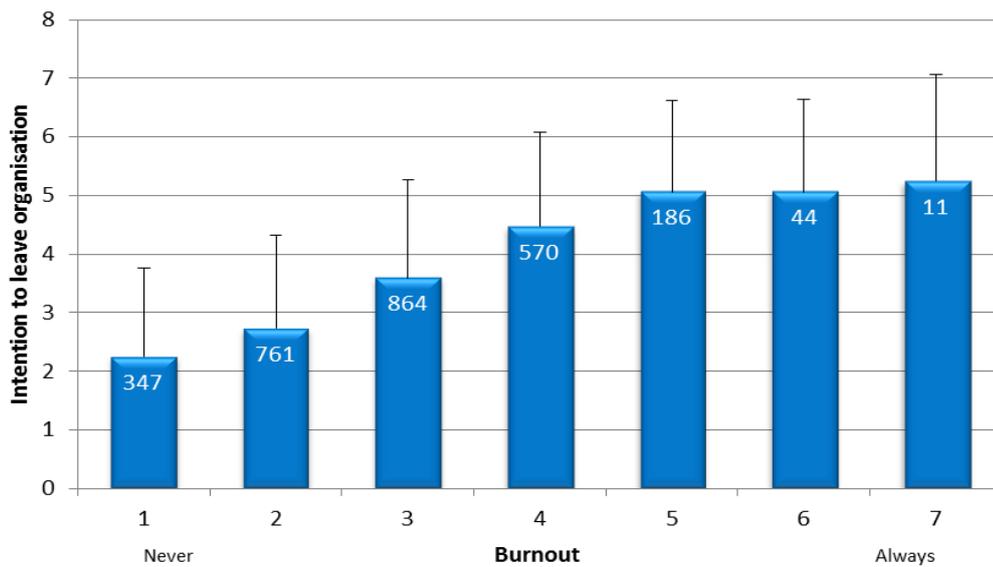


Figure 9-2: ITLO and burnout (error bar = 1SD)

As work engagement increases, ITLO decreases (Figure 9-3). For every unit increase in work engagement ($\beta = -0.043$) there is a 0.043 decrease in ITLO.

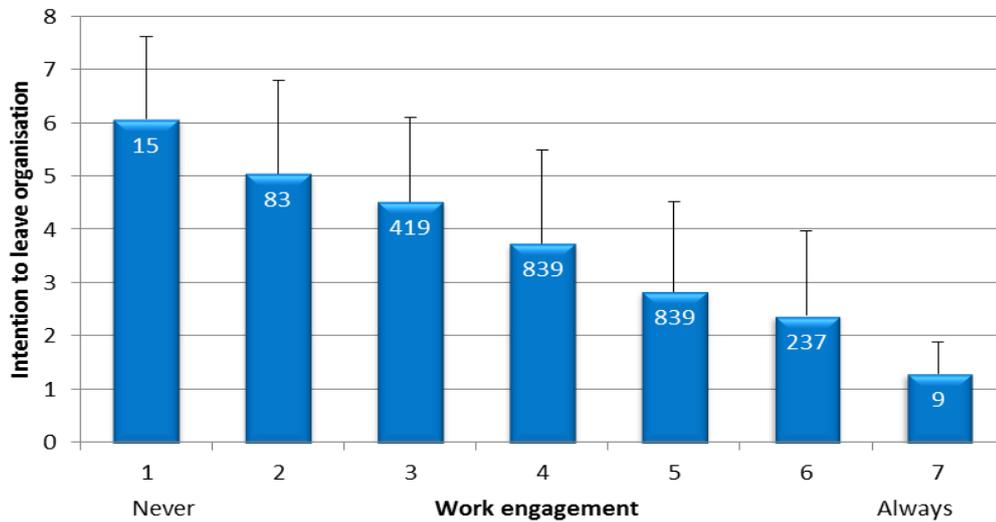


Figure 9-3: ITLO and work engagement (error bar = 1SD)

Finally, for every unit increase in work-life interference ($\beta = 0.092$) there is a 0.092 increase in ITLO. In other words, as feelings of work-life interference increase, ITLO also increases (Figure 9-4).

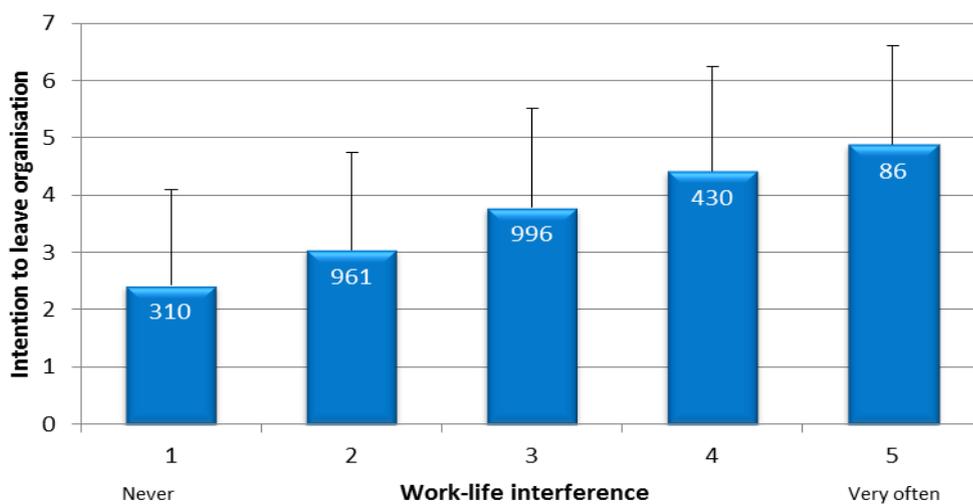


Figure 9-4: ITLO and work-life interference (error bar = 1SD)

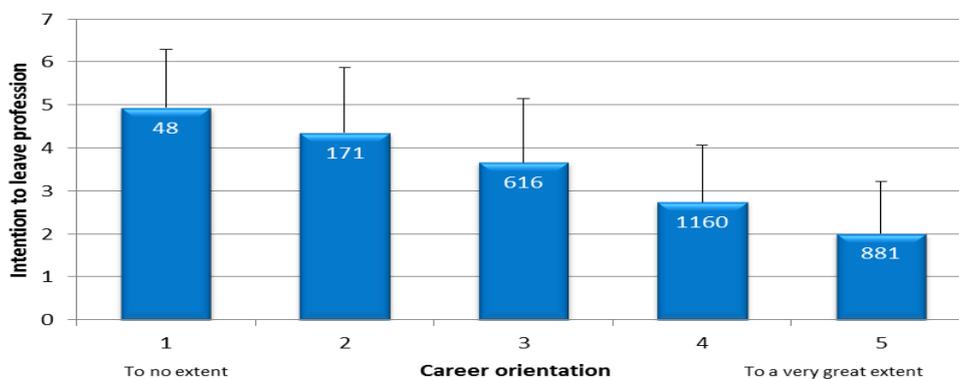
Intention to leave the profession

The variables identified as having a statistically significant effect on ITLP are summarised in Table 9-3. The multiple regression model for ITLP explains 41 percent of the variance in ITLP. All the variables included in the model are statistically significant predictors of ITLP: career orientation ($p = <0.001$); job satisfaction ($p = <0.001$); burnout ($p = <0.001$); and work engagement ($p = <0.001$). Although ‘will return to NZ’ showed an eta-square of 0.130, it was not included in the multiple regression analysis as this item was only answered by a small selection of participants who said they were likely to leave NZ to work and including this item would limit generalisability.

Table 9-3: Multiple regression analysis - ITLP

Factor	Q2: Factors that contribute to RNs wanting to leave the nursing profession (ITLP)		
	<i>Beta (β)</i>	<i>Standard error (S)</i>	<i>P-value (p)</i>
Career orientation	-0.300	0.026	<0.001
Job satisfaction	-0.234	0.015	<0.001
Burnout	0.155	0.026	<0.001
Work engagement	-0.136	0.034	<0.001
R-squared	0.414		

Career orientation ($\beta = -0.300$) has the greatest strength of association with ITLP, that is, for every unit increase in career orientation there is a 0.300 decrease in ITLP. Therefore, RNs who consider nursing as a long-term career have lower ITLP (Figure 9-5).

**Figure 9-4: ITLP and career orientation (error bar = 1SD)**

Job satisfaction ($\beta = -0.234$) has the second greatest strength of association with ITLP, where for each unit increase in job satisfaction there is a 0.234 decrease in ITLP. This means that RNs who report higher levels of job satisfaction will report lower levels of ITLP (Figure 9-6).

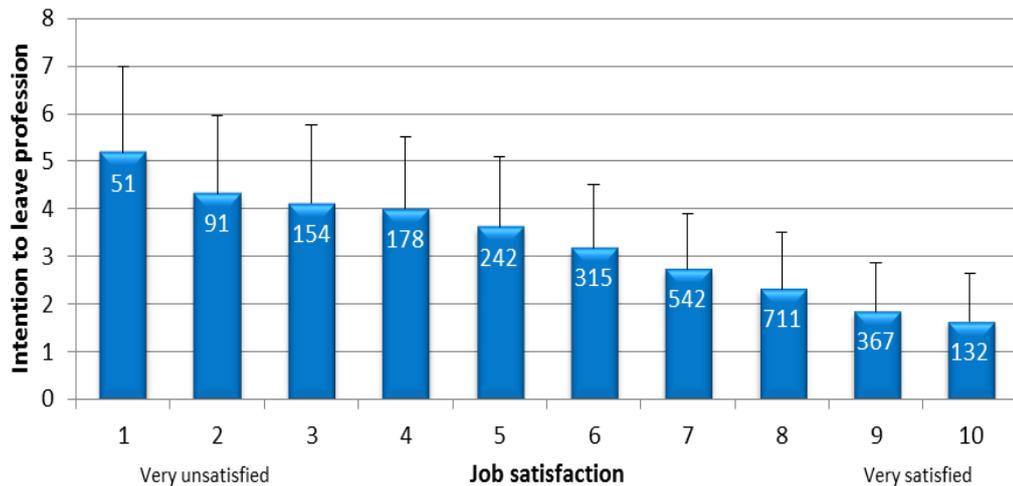


Figure 9-5: ITLP and job satisfaction (error bar = 1SD)

For every unit increase in burnout ($\beta = 0.155$), there is a 0.155 increase in ITLP. In other words, as levels of burnout increase, so do levels of ITLP (Figure 9-7).

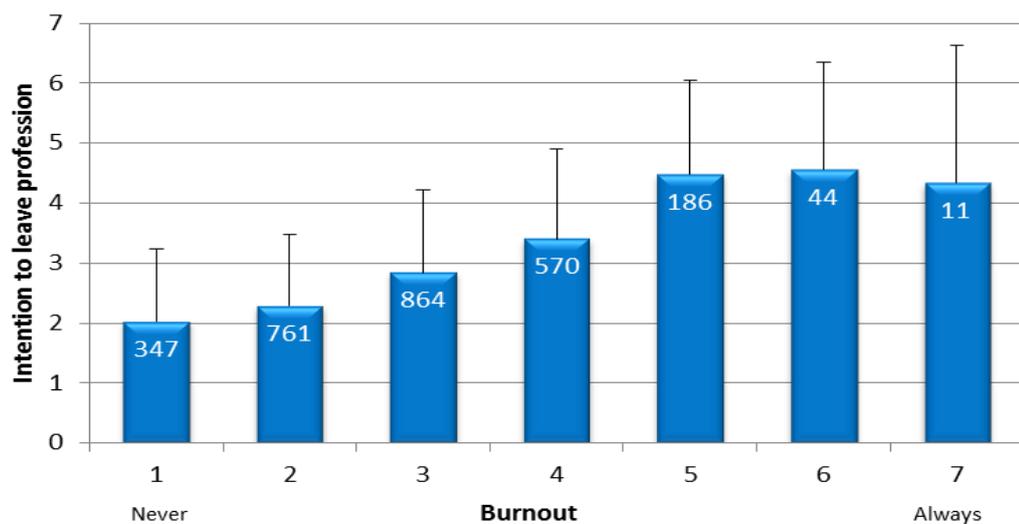


Figure 9-6: ITLP and burnout (error bar = 1SD)

For every unit increase in work engagement ($\beta = -0.136$) there is a 0.136 decrease in ITLP. Therefore, when RNs feel more engaged with their work they will report lower intentions to leave the profession (Figure 9-8).

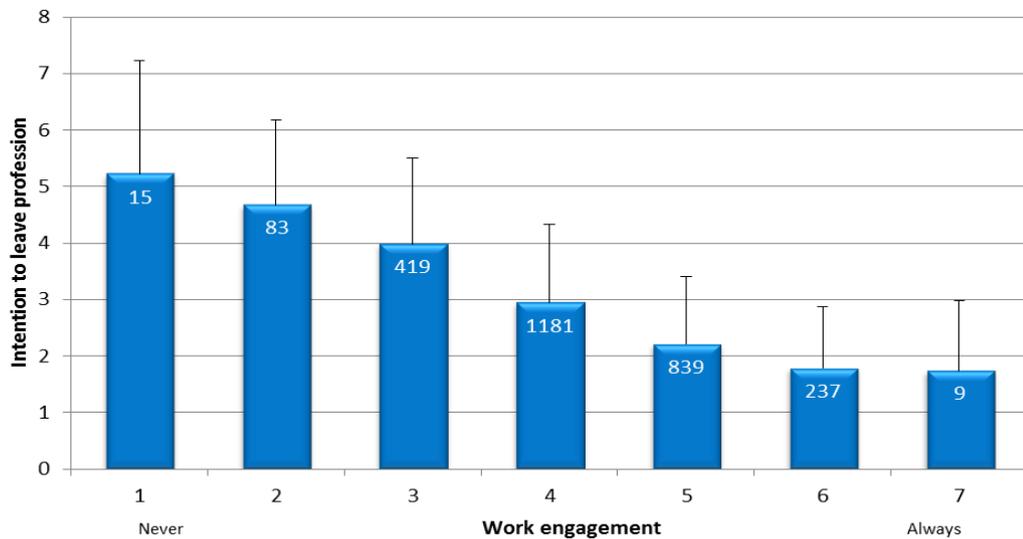


Figure 9-7: ITLP and work engagement (error bar = 1SD)

9.3 Summary

This chapter reports the results of linear and multiple regression analyses. At least a moderate practical significant effect was used in the linear regression analysis to identify which independent variables should go into the multiple regression models. The multiple regression analysis concludes that the factors that increase ITLO are greater levels of burnout and work-life interference, while greater levels of job satisfaction and work engagement decrease ITLO. Greater levels of burnout increase ITLP, while greater levels of career orientation, job satisfaction and work engagement decrease ITLP. The next chapter reports the SEM results.

Chapter 10: Results – structural equation modelling phase

A black cat crossing your path signifies that the animal is going somewhere.

Groucho Marx (1890 – 1977)

10.1 Introduction

The final phase of the quantitative analysis was to conduct structural equation modelling (SEM) to take the regression analysis a step further and test the hypotheses that form the extended job demands-resources (JD-R) model. As is standard, SEM proceeded in two steps: testing of the measurement model followed by testing of the theory through the structural model. In this chapter, the SEM measurement and structural models are presented, the goodness-of-fit is discussed and the total, direct and indirect effects are revealed. The independent variables in the model that have the largest effects are summarised.

10.2 Cross-loading of items

The possibility of cross-loading of items was checked for the measurement model by examining the modification indices, an approach used extensively by others (Hair et al., 2014, p. 621). There was only one problematic item (Q14E: When I get up in the morning, I feel like going to work) which had large modification indices on multiple constructs. The options were to add the cross-loading and estimate the model again or eliminate the item. The decision was made not to eliminate the item because it is from an established scale of the sub-dimension of engagement and has a standardised factor loading of 0.73. After adding the cross-loadings suggested by the modification indices, the results indicated that all the standardised cross-loadings are small, ranging from 0.002 to 0.310. The highest value of 0.310 is considered a low standardised factor loading which should not be included in the measurement model (Hair et al., 2014; Stevens, 2002). In conclusion, there is no indication of significant cross-loading that should be included in the measurement model.

10.3 Conventions on model fit

The chi-square value is the traditional measure for evaluating overall model fit and, ‘assesses the magnitude of discrepancy between the sample and fitted covariance matrices’ (Hu & Bentler, 1999, p. 2). While the chi-square test retains its popularity as a fit statistic, there exist several severe limitations in its use. Firstly, this test assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified (McIntosh, 2006). Secondly, because the chi-square statistic is in essence a statistical significance test it is sensitive to sample size which means that the chi-square statistic nearly always rejects the model when large samples are used (Joreskog & Sorbom, 1993). Due to the restrictiveness of the model chi-square, researchers have sought alternative indices to assess model fit. R. B. Kline (2016a) strongly recommends all SEM reporting to include the following fit indices: (1) root mean square error of approximation (RMSEA); (2) standardised root mean square residual (SRMR) and (3) comparative fit index (CFI). These are the goodness-of-fit indices reported in this study.

The RMSEA tells us how well the model, with unknown but optimally chosen parameter estimates, would fit the population’s covariance matrix (B.M. Byrne, 1998). It has become regarded as one of the most informative fit indices due to its sensitivity to the number of estimated parameters in the model (Diamantopoulos & Siguaw, 2000). It was thought that an RMSEA of between 0.08 to 0.10 provided a mediocre fit and below 0.08 showed a good fit, but more recently a cut-off value close to .06 (Hu & Bentler, 1999) or a stringent upper limit of 0.07 (Steiger, 2007) seemed to be the general consensus amongst authorities in this area. The SRMR is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model. Values for the SRMR range from zero to 1.0 with well-fitting models obtaining values less than 0.05 (Diamantopoulos & Siguaw, 2000). However values as high as 0.08 are deemed acceptable (Hu & Bentler, 1999). The CFI statistic assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model. Values for this statistic range between 0.0 and 1.0 with values closer to 1.0 indicating good fit (Hooper, Coughlan, & Mullen, 2008). A CFI criterion value of 0.90 or above has been suggested

as indicating a satisfactory model fit (P. Bentler, 1990; G. W. Cheung & Rensvold, 2002).

10.4 Measurement model

In the first step of the SEM process, a measurement model of all variables with theoretical underpinnings connecting them to the JD-R model was tested, with each latent variable loading onto its respective items. All variables were allowed to intercorrelate.

The results showed that the measurement model satisfactorily fitted the data ($X^2 = 14909.20$, $df = 2288$, $RMSEA = 0.04$, $SRMR = 0.05$, $CFI = 0.91$). All standardised factor loadings were higher than 0.5, in fact mostly above 0.7, which indicated good convergent validity (Table 10-1) (Steenkamp & van Trijp, 1991). All the correlation coefficients among the constructs were lower than 0.85, which indicated good discriminant validity (R. B. Kline, 2016a).

Table 10-1: Measurement model factor loadings

Construct	Measurement item	Standardised factor loading
Intention to leave Organisation	Wants to switch to another nursing job	0.883
	Is considering changing nursing job	0.923
	Is keeping eyes open for another nursing job	0.830
Intention to leave profession	Wants to leave profession as soon as possible	0.777
	Would still choose to go in to nursing	0.670
	Plans to continue in nursing rest of working life	0.704
Quantitative demands	Lacks time to complete tasks	0.695
	Can pause in work when wants to	0.628
	Has to work very fast	0.534
	Workload unevenly distributed so things pile up	0.687
	Has time to talk to patients	0.629
Burnout	Feels tired	0.713
	Feels physically weak/sick	0.761
	Has difficulty sleeping	0.652
	Feels disappointed with people	0.640
	Feels trapped	0.866
	Feels worthless/like a failure	0.782
	Feels hopeless	0.866
	Feels helpless	0.882
	Feels depressed	0.835
Feels like “I’ve had it”	0.788	
Emotional demands (challenges)	Confronted with death	0.612
	Confronted with illness or human suffering	0.721
Emotional demands (hindrances)	Confronted with aggressive patients	0.845
	Confronted with troublesome patients	0.892

Table 10-1: Measurement model factor loadings (continued)

Construct	Measurement item	Standardised factor loading
Engagement	Feels bursting with energy	0.881
	Feels strong and vigorous	0.900
	Feels like going to work in the morning	0.730
	Is enthusiastic about job	0.907
	Job inspires	0.899
	Proud of work	0.668
	Feels happy when working intensely	0.732
	Is immersed in work	0.759
	Gets carried away while working	0.579
Work-life interference	Comes home too tired to do things	0.638
	Has so much work to do it takes away from personal interests	0.751
	Family or friends dislike how preoccupied I am with work	0.741
	Work takes up time I'd like to spend with family or friends	0.882
	Job interferes with responsibilities at home	0.875
	Job keeps me from spending time with family or friends	0.894
Supervisor support	Supervisor appreciates value of work	0.912
	Supervisor expresses positive opinion on work	0.924
	Supervisor gives supportive advice	0.860
	Supervisor is ready to help with performance of tasks	0.758
Colleague support	Colleagues appreciate value of work	0.871
	Colleagues express positive opinion on work	0.895
	Colleagues give supportive advice	0.746
	Colleagues are ready to help with performance of tasks	0.659
Organisational support	Organisation cares about well-being	0.892
	Organisation cares about satisfaction at work	0.960
	Organisation shows very little concern	0.621

Table 10-1: Measurement model factor loadings (continued)

Construct	Measurement item	Standardised factor loading
Professional development	Able to take time off for training	0.819
	Able to keep up with developments to do with job	0.887
Reward	Receives respect and prestige	0.808
	Satisfied with pay in relation to need for income	0.822
	Satisfied with pay considering other comparable professions	0.810
	Satisfied with pay considering pay of RNs in other organisations	0.845
	Satisfied with pay considering pay of other RNs in my organisation	0.780
Autonomy	My work prospects are good	0.659
	Able to use personal initiative or judgment in carrying out work	0.818
	Able to make a lot of decisions on own	0.951
Value congruence	Has significant autonomy in making decisions	0.932
	Employer's values align closely with personal values	0.703
	Organisation puts quality of care of the patient first	0.912
PsyCap (self-efficacy)	Organisation and I agree on patient care	0.922
	Confident analysing a long-term problem to find a solution	0.654
	Confident representing work area in meetings with management	0.867
	Confident contributing to discussions about organisation strategy	0.872
	Confident helping to set targets in work area	0.852
	Confident contacting people outside work area	0.588
	Confident presenting information to group of colleagues	0.648

10.5 Structural model

To address the research hypotheses, a path model was constructed (Figure 10-1). The model includes job demands (quantitative demands, emotional demands (hindrances), emotional demands (challenges); personal demands (work-life interference); job resources (supervisor support, colleague support, autonomy, professional development, organisational support); and personal resources (psychological capital – self-efficacy, value congruence). These independent variables are antecedents of the engagement and burnout variables. The consequences of engagement and burnout are intention to leave the organisation (ITLO) and intention to leave the profession (ITLP). The variable of reward is also included as a control variable of ITLO and ITLP. For the structural model, the results showed that the path model satisfactorily fitted the data ($\chi^2 = 15119.75$, $df = 2315$, $RMSEA = 0.04$, $SRMR = 0.05$, $CFI = 0.90$).

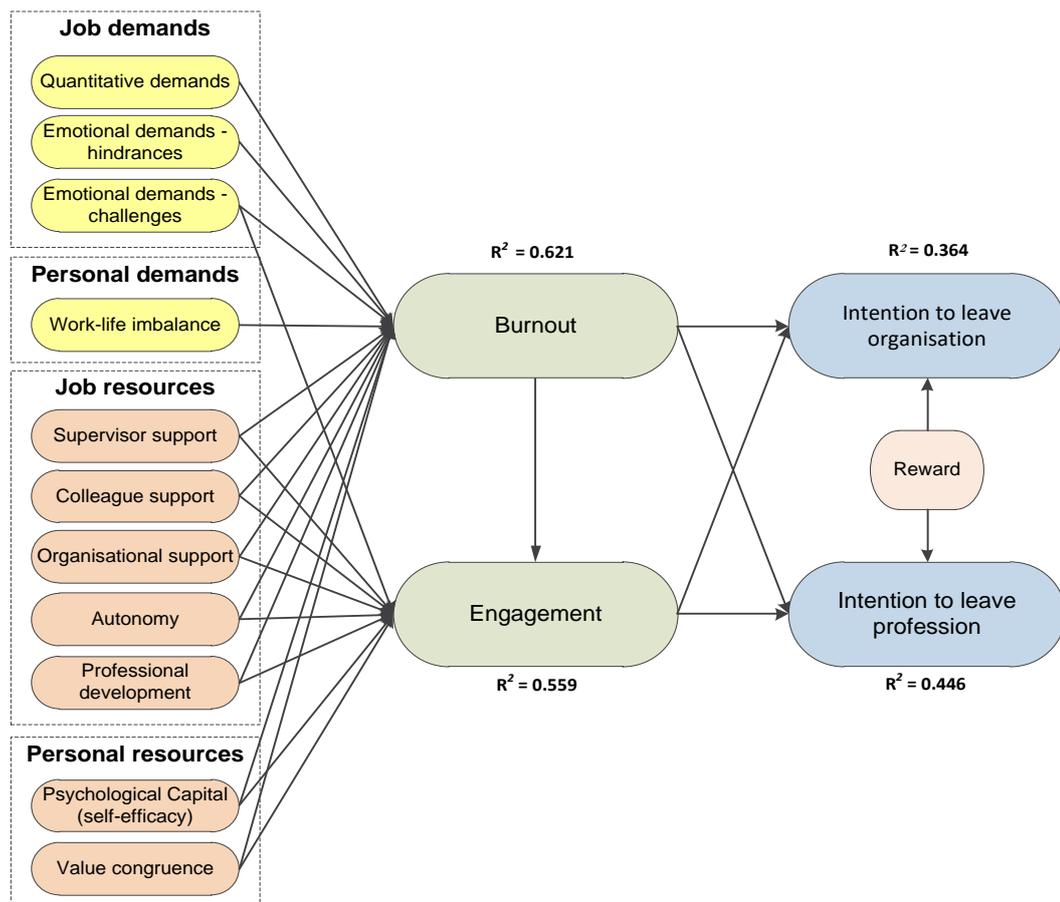


Figure 10-1: Extended JD-R model in this study

10.6 Total, direct and indirect effects

The Tables in this section show the effects of the independent variables on the dependent variables. Table 10-2 shows the direct effects, Table 10-3 the total and indirect effects on ITLO and Table 10-4 shows the total and indirect effects on ITLP.

The findings support *hypotheses 1a to 1e*. Burnout has a positive direct effect on both ITLO ($\beta = 0.35, p < 0.001$) and ITLP ($\beta = 0.24, p < 0.001$) and a negative direct effect on engagement ($\beta = -0.49, p < 0.001$). Engagement has a negative direct effect on both ITLO ($\beta = -0.14, p < 0.001$) and ITLP ($\beta = -0.45, p < 0.001$). Results show that reward has a direct negative effect on ITLO ($\beta = -0.21, p < 0.001$), but does not have a statistically significant relationship with ITLP ($\beta = 0.05, p = 0.11$).

The findings support *hypotheses 2a to 2c*. Quantitative demands have a positive direct effect on burnout ($\beta = 0.27, p < 0.001$). Quantitative demands have a positive total effect on ITLO ($\beta = 0.11, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.10, p < 0.001$) and through burnout and then engagement ($\beta = 0.02, p < 0.001$). Quantitative demands have a positive total effect on ITLP ($\beta = 0.13, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.07, p < 0.001$) and through burnout and then engagement ($\beta = 0.06, p < 0.001$).

The findings support *hypotheses 3a to 3c*. Emotional demands (hindrances) have a positive direct effect on burnout ($\beta = 0.14, p < 0.001$). Emotional demands (hindrances) have a positive total effect on ITLO ($\beta = 0.06, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.05, p < 0.001$) and through burnout and then engagement ($\beta = 0.01, p < 0.001$). Emotional demands (hindrances) have a positive total effect on ITLP ($\beta = 0.06, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.03, p < 0.001$) and through burnout and then engagement ($\beta = 0.03, p < 0.001$).

Table 10-2: Standardised direct effects

Independent variables	Mediating variables		Dependent variables	
	Burnout	Engagement	ITLO	ITLP
Quantitative demands	0.271*** [0.193, 0.349]			
Emotional Demands (hindrances)	0.138*** [0.078, 0.201]			
Emotional demands (challenges)	-0.072** [-0.143, -0.001]	0.176*** [0.120, 0.230]		
Work-life interference	0.369*** [0.306, 0.430]			
Supervisor support	-0.075*** [-0.127, -0.024]	0.063** [0.000, 0.118]		
Colleague support	-0.038* [-0.085, -0.011]	0.132*** [0.078, 0.187]		
Organisational support	-0.057* [-0.124, -0.006]	0.107*** [0.041, 0.177]		
Autonomy	-0.070*** [-0.131, -0.017]	0.062** [0.000, 0.120]		
Professional development	-0.028 [-0.096, 0.036]	0.012 [-0.049, 0.080]		
PsyCap (self-efficacy)	-0.097*** [-0.155, -0.043]	0.147*** [0.090, 0.206]		
Value congruence	-0.079** [-0.151, -0.014]	0.048 [-0.023, 0.119]		
Burnout		-0.489*** [-0.559, -0.420]	0.351*** [0.271, 0.426]	0.240*** [0.144, 0.324]
Engagement			-0.137*** [-0.212, -0.066]	-0.454*** [-0.537, -0.373]
Reward			-0.212*** [-0.287, -0.138]	-0.051 [-0.135, 0.029]
R-squared	0.621	0.559	0.364	0.446

Note: * = $p < 0.05$ (two-tailed test), ** $p = < 0.01$ (two-tailed test), *** = $p < 0.001$ (two-tailed test), 95% Confidence Intervals in square brackets.

Table 10-3: Standardised total and indirect effects - Intention to leave organisation

Independent variables	Mediating variables – indirect effects			Total effect
	Burnout - Engagement	Engagement	Burnout	
Quantitative demands	0.018*** [0.008, 0.031]		0.095*** [0.063, 0.133]	0.114*** [0.078, 0.153]
Emotional demands (hindrances)	0.009*** [0.004, 0.018]		0.048*** [0.027, 0.077]	0.058*** [0.033, 0.088]
Emotional demands (challenges)	-0.005* [-0.012, -0.000]	-0.024*** [-0.043, -0.011]	-0.025* [-0.056, -0.000]	-0.055** [-0.092, -0.020]
Work-life interference	0.025*** [0.012, 0.040]		0.130*** [0.095, 0.166]	0.154*** [0.120, 0.190]
Supervisor support	-0.005** [-0.011, -0.002]	-0.009* [-.021, -0.001]	-0.026** [-0.048, -0.008]	-0.040*** [-0.068, -0.017]
Colleague support	-0.003 [-0.007, 0.001]	-0.018*** [-0.033, -0.008]	-0.013* [-0.031, -0.004]	-0.034*** [-0.058, -0.011]
Organisational support	-0.004* [-0.011, -0.000]	-0.015** [-0.026, -0.007]	-0.020* [-0.044, -0.002]	-0.039*** [-0.072, -0.009]
Autonomy	-0.005** [-0.011, -0.001]	-0.009* [-0.021, -0.000]	-0.025** [-0.047, -0.006]	-0.038*** [-0.064, -0.014]
Professional development	-0.002 [-0.008, 0.002]	-0.002 [-0.012, 0.007]	-0.010 [-0.035, 0.013]	-0.014 [-0.043, 0.014]
PsyCap (self-efficacy)	-0.007*** [-0.013, -0.002]	-0.020*** [-0.034, -0.010]	-0.034*** [-0.056, -0.015]	-0.061*** [-0.090, -0.036]
Value congruence	-0.005* [-0.013, -0.001]	-0.007 [-0.021, 0.002]	-0.028** [-0.054, -0.004]	-0.040** [-0.075, -0.010]

Note: * = $p < 0.05$ (two-tailed test), ** $p < 0.01$ (two-tailed test), *** = $p < 0.001$ (two-tailed test), 95% Confidence Intervals in square brackets.

Table 10-4: Standardised total and indirect effects - Intention to leave profession

Independent variables	Mediating variables – indirect effects			Total effect
	Burnout - Engagement	Engagement	Burnout	
Quantitative demands	0.060*** [0.041, 0.083]		0.065*** [0.035, 0.099]	0.125*** [0.086, 0.171]
Emotional demands (hindrances)	0.031*** [0.017, 0.049]		0.033*** [0.017, 0.055]	0.064*** [0.036, 0.096]
Emotional demands (challenges)	-0.016** [-0.035, -0.000]	-0.080*** [-0.112, -0.054]	-0.018* [-0.039, -0.000]	-0.114*** [-0.162, -0.064]
Work-life interference	0.082*** [0.061, 0.107]		0.089*** [0.052, 0.123]	0.170*** [0.131, 0.210]
Supervisor support	-0.017*** [-0.031, -0.006]	-0.029** [-0.054, -0.002]	-0.018*** [-0.033, -0.005]	-0.063*** [-0.099, -0.027]
Colleague support	-0.008* [-0.020, 0.002]	-0.060*** [-0.088, -0.036]	-0.009 [-0.023, 0.003]	-0.077*** [-0.112, -0.043]
Organisational support	-0.013* [-0.029, -0.001]	-0.049*** [-0.082, -0.019]	-0.014* [-0.033, -0.001]	-0.075*** [-0.123, -0.031]
Autonomy	-0.015** [-0.031, -0.004]	-0.028*** [-0.059, -0.000]	-0.017** [-0.035, -0.004]	-0.060*** [-0.097, -0.036]
Prof development	-0.006 [-0.021, 0.008]	-0.005 [-0.037, 0.021]	-0.007 [-0.025, 0.009]	-0.019 [-0.063, 0.021]
PsyCap (self-efficacy)	-0.022*** [-0.036, -0.009]	-0.067*** [-0.098, -0.040]	-0.023*** [-0.041, -0.009]	-0.112*** [-0.152, -0.076]
Value congruence	-0.017** [-0.036, -0.003]	-0.022 [-0.057, 0.010]	-0.019** [-0.041, -0.003]	-0.058** [-0.112, 0.012]

Note: * = $p < 0.05$ (two-tailed test), ** = $p < 0.01$ (two-tailed test), *** = $p < 0.001$ (two-tailed test), 95% Confidence Intervals in square brackets.

The findings support *hypotheses 3d to 3g*. Emotional demands (challenges) have a negative direct effect on burnout ($\beta = -0.07, p < 0.001$) and a positive direct effect on engagement ($\beta = 0.18, p < 0.001$). Emotional demands (challenges) have a negative total effect on ITLO ($\beta = -0.06, p < 0.01$) through the indirect effect through engagement ($\beta = -0.02, p < 0.001$), through burnout ($\beta = -0.03, p < 0.05$) and through burnout and then engagement ($\beta = -0.01, p < 0.05$). Emotional demands (challenges) have a negative total effect on ITLP ($\beta = -0.11, p < 0.001$), which includes the indirect effects through engagement ($\beta = -0.08, p < 0.001$), through burnout ($\beta = -0.02, p < 0.05$) and through burnout and then engagement ($\beta = -0.02, p < 0.01$).

The findings support *hypotheses 4a to 4c*. Work-life interference has a positive direct effect on burnout ($\beta = 0.37, p < 0.001$). Work-life interference has a positive total effect on ITLO ($\beta = 0.15, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.13, p < 0.001$) and through burnout and then engagement ($\beta = 0.03, p < 0.001$). Work-life interference has a positive total effect on ITLP ($\beta = 0.17, p < 0.001$), which includes the indirect effects through burnout ($\beta = 0.09, p < 0.001$) and through burnout and then engagement ($\beta = 0.08, p < 0.001$).

The findings support *hypotheses 5a to 5d*. Supervisor support has a negative direct effect on burnout ($\beta = -0.08, p < 0.001$) and a positive direct effect on engagement ($\beta = 0.06, p < 0.01$). Supervisor support has a negative total effect on ITLO ($\beta = -0.04, p < 0.001$), which includes the indirect effects through burnout ($\beta = -0.03, p < 0.01$), through engagement ($\beta = -0.01, p < 0.05$) and through burnout and then engagement ($\beta = -0.01, p < 0.01$). Supervisor support has a negative total effect on ITLP ($\beta = -0.06, p < 0.001$), which includes the indirect effects through burnout ($\beta = -0.02, p < 0.001$), through engagement ($\beta = -0.03, p < 0.01$) and through burnout and then engagement ($\beta = -0.02, p < 0.001$).

The findings support *hypothesis 6a to 6d*. Colleague support has a negative direct effect on burnout ($\beta = -0.04, p < 0.05$) and a positive direct effect on engagement ($\beta = 0.13, p < 0.01$). Colleague support has a negative total effect on ITLO ($\beta = -0.03, p < 0.001$) through the indirect effects through engagement ($\beta = -0.02, p < 0.001$) and through burnout ($\beta = -0.01, p < 0.05$), but not through burnout and then engagement ($\beta = -0.00, p = 0.08$). Colleague support has a negative total effect on ITLP ($\beta = -0.08,$

$p < 0.001$) through the indirect effects through engagement ($\beta = -0.06, p < 0.001$) and through burnout and then engagement ($\beta = -0.01, p < 0.05$), but not through burnout ($\beta = -0.01, p = 0.06$).

The findings support *hypotheses 7a to 7d*. Organisational support has a direct negative effect on burnout ($\beta = -0.06, p < 0.05$) and a positive direct effect on engagement ($\beta = 0.11, p < 0.001$). Organisational support has a negative total effect on ITLO ($\beta = -0.04, p < 0.001$) through the indirect effect through engagement ($\beta = -0.02, p < 0.01$), through burnout ($\beta = -0.02, p < 0.05$) and through burnout and then engagement ($\beta = -0.004, p < 0.05$). Organisational support has a negative total effect on ITLP ($\beta = -0.08, p < 0.001$) through the indirect effect of engagement ($\beta = -0.05, p < 0.001$), through burnout ($\beta = -0.01, p < 0.05$) and through burnout and then engagement ($\beta = -0.01, p < 0.05$).

The findings support *hypotheses 8a to 8d*. Autonomy has a negative direct effect on burnout ($\beta = -0.07, p < 0.001$) and a positive direct effect on engagement ($\beta = 0.06, p < 0.01$). Autonomy has a negative total effect on ITLO ($\beta = -0.04, p < 0.001$), which includes the indirect effects through burnout ($\beta = -0.03, p < 0.01$), through engagement ($\beta = -0.01, p < 0.05$), and through burnout and then engagement ($\beta = -0.01, p < 0.01$). Autonomy has a negative total effect on ITLP ($\beta = -0.06, p < .001$), which includes the indirect effects through burnout ($\beta = -0.02, p < 0.01$), through engagement ($\beta = -0.03, p < 0.001$) and through burnout and then engagement ($\beta = -0.02, p < 0.01$).

The findings do not support *hypotheses 9a to 9d*. Professional development does not have a statistically significant negative direct effect on burnout ($\beta = -0.03, p = 0.26$), neither does it have a statistically significant positive direct effect on engagement ($\beta = 0.01, p = 0.62$). Professional development does not have a statistically significant negative total effect on ITLO ($\beta = -0.01, p = 0.22$), which includes the indirect effects through burnout ($\beta = -0.01, p = 0.26$), through engagement ($\beta = -0.00, p = 0.63$) and through burnout and then engagement ($\beta = -0.00, p = 0.28$). Professional development does not have a statistically significant negative total effect on ITLP ($\beta = -0.02, p = 0.24$), which includes the indirect effects through burnout ($\beta = -0.00, p = 0.28$), through engagement ($\beta = -0.00, p = 0.62$) and through burnout and then engagement ($\beta = -0.00, p = 0.27$).

The findings support *hypotheses 10a to 10d*. Psychological capital (self-efficacy) has a negative direct effect on burnout ($\beta = -0.10, p < 0.001$) and a positive direct effect on engagement ($\beta = 0.15, p < 0.001$). Psychological capital (self-efficacy) has a negative total effect on ITLO ($\beta = -0.06, p < 0.001$), which includes the indirect effects through burnout ($\beta = -0.03, p < 0.001$), through engagement ($\beta = -0.02, p < 0.001$) and through burnout and then engagement ($\beta = -0.01, p < 0.001$). Psychological capital (self-efficacy) has a negative total effect on ITLP ($\beta = -0.11, p < 0.001$), which includes the indirect effects through burnout ($\beta = -0.02, p < 0.001$), through engagement ($\beta = -0.07, p < 0.001$) and through burnout and then engagement ($\beta = -0.02, p < 0.001$).

The findings support *hypothesis 11a*, where value congruence has a negative direct effect on burnout ($\beta = -0.08, p < 0.01$). The findings do not support *hypothesis 11b*, because value congruence does not have a statistically significant positive direct effect on engagement ($\beta = 0.05, p = 0.08$). The findings support *hypotheses 11c and 11d*. Value congruence has a negative total effect on ITLO ($\beta = -0.04, p < 0.01$) through the indirect effect through burnout ($\beta = -0.03, p < 0.01$) and through burnout and then engagement ($\beta = -0.01, p < 0.05$). The effect of value congruence on ITLO is not statistically significant through the indirect effects of engagement ($\beta = -0.01, p = 0.12$). Value congruence has a negative total effect on ITLP ($\beta = -0.06, p < 0.01$), which includes the indirect effects through burnout ($\beta = -0.02, p < 0.01$) and through burnout and then engagement ($\beta = -0.02, p < 0.01$). The effect of value congruence on ITLP is not statistically significant through the indirect effects of engagement ($\beta = -0.02, p = 0.08$).

10.7 Independent variables that have the largest effects

The standardised coefficient results show that quantitative demands, emotional demands (hindrances) and work-life interference have the largest positive effects on burnout. Total effects (direct effect plus indirect effects) were calculated for engagement. Results show that quantitative demands ($\beta = -0.13$) and work-life interference ($\beta = -0.18$) have the largest negative effects on engagement, while emotional demands (challenge) ($\beta = 0.21$), colleague support ($\beta = 0.15$), organisational

support ($\beta = 0.13$) and psychological capital (self-efficacy) ($\beta = 0.19$) have the largest positive effects on engagement. Quantitative demands and work-life interference have the largest positive effects on ITLO. Quantitative demands and work-life interference also have the largest positive effects on ITLP and, in addition, emotional demands (challenge) and psychological capital (self-efficacy) have large negative effects on ITLP.

10.8 Summary

The SEM analysis method was employed to advance the descriptive statistics and regression analyses and to test the hypotheses relating to the extended JD-R model. The goodness-of-fit indices showed that the model satisfactorily fitted the data. Total, direct and indirect effects supported all the hypotheses put forward in the extended JD-R model except for those relating to professional development and the effect of value congruence on engagement. Results showed that quantitative demands, emotional demands (hindrances) and work-life interference led to employee burnout. Quantitative demands and work-life interference led to decreased work engagement and contributed the most to ITLO and ITLP. Emotional demands (challenges), colleague support, organisational support and psychological capital (self-efficacy) led to increased work engagement and greater emotional demands (challenges) and psychological capital (self-efficacy) led to decreased ITLP.

Chapter 11: Discussion

We cannot solve our problems with the same thinking we used when we created them.

Albert Einstein (1879-1955)

11.1 Introduction

A plethora of literature exists on nursing intention to leave (ITL). The determinants of intention to leave the organisation (ITLO) and intention to leave the profession (ITLP) are complex and varied (Flinkman et al., 2010; L. J. Hayes et al., 2006; L. J. Hayes et al., 2012; H. Lu et al., 2005). A culture of turnover seems to exist within the nursing profession, resulting in negative economic consequences, including lost productivity, decreased efficiency and lost human capital (S. J. Cavanagh & Coffin, 1992; North et al., 2013). The forecast of a severe nursing shortage in the coming years due to an ageing population, an increasing prevalence of morbidity and an ageing nursing workforce nearing retirement, indicates that there is an undeniable necessity to identify ways to stabilise the nursing workforce (Buchan et al., 2013; Buerhaus, 2012; OECD, 2015a; Staiger et al., 2012). This study sought to identify the key variables related to nursing turnover and to explore how times of economic downturn affect the decisions registered nurses (RNs) make around work. It aimed to provide new understanding of the causes of nursing turnover intentions and make extensive recommendations based on findings to improve the retention of RNs in the profession.

This discussion chapter interprets the results presented in chapters 7, 8, 9 and 10 in light of the existing literature. The chapter is organised into four parts. The first addresses the two research questions directly and discusses the most statistically significant predictors of RN turnover as identified by the study. The second part discusses the implications of the results for the job demands-resources (JDR) model. The third part explores the theoretical contribution of the study and presents twelve strategic themes that will encourage RNs to stay. The fourth part reports limitations, conclusions, implications for policy and practice and suggestions for future research.

Part 1: The research questions

Two questions were used to direct the investigation through the design, implementation, analysis and conclusion phases. In developing new understanding of the causes of nursing turnover intentions to help build a stable nursing workforce, this study looked to address the two following research questions:

1. What factors contribute to registered nurses wanting to change jobs within the nursing profession?
2. What factors contribute to registered nurses wanting to leave the nursing profession?

11.2 What factors contribute to registered nurses wanting to change jobs within the nursing profession?

The data identified a number of factors as statistically significant predictors of ITLO: reward; job satisfaction; quantitative demands; emotional demands (challenges); emotional demands (hindrances); work-life interference; supervisor support; colleague support; organisational support; autonomy; psychological capital (self-efficacy); and value congruence.

11.2.1 Reward

When the issue of nursing retention is raised, many assume that the simple solution is to pay RNs more money. In the context of this study, reward includes the consideration of salary, respect and recognition and the opportunity for promotion. Qualitative results from this study showed that many RNs feel that their pay is too low, particularly in comparison with other professions. Indeed, the structural equation modelling (SEM) results of this study showed that the lure of rewards may influence RNs to look for new roles within nursing ($\beta = -0.21, p = <0.001$), presumably for richer benefits. This is in line with Buerhaus et al. (2009) who proposed that many RNs have switched from non-hospital settings to hospitals to take advantage of higher earnings and greater benefits. Although some interview participants discussed their frustration at the pace in which they were able to progress into new roles, which they considered a potential reason for RNs to leave the profession, the SEM results suggested that rewards do not affect the decisions RNs make around leaving the

profession ($\beta = -0.05, p = 0.05$). This conveys that other more complex factors are at play in this decision-making process and suggests that RNs are not underpaid relative to other comparable professions.

11.2.2 Job satisfaction

Job satisfaction was identified as statistically significant by the multiple regression analysis for ITLO ($\beta = -0.30, p = <0.001$). In fact, job satisfaction was shown to have the greatest magnitude of change on ITLO above all the other factors. When employees feel satisfied with their job as a whole, they will have less ITLO. Conversely, if satisfaction levels are low, employees will exhibit greater ITLO. This is in line with research which reports a strong correlation between job dissatisfaction and RN ITLO (Applebaum et al., 2010; D. K. Boyle et al., 1999; Ma et al., 2009; Tourangeau & Cranley, 2006). However, whether job dissatisfaction results in actual turnover is closely interwoven with perceptions of the labour market or perceived availability of job alternatives (Mobley, 1977; Price & Mueller, 1981). The intention to quit may be stimulated by job dissatisfaction (the push effect) or by perceived alternatives (the pull effect) (Winterton, 2004). However, the actual quit may be stimulated by the ease of movement to another position or low organisational commitment, irrespective of the level of job satisfaction. Conversely, turnover may remain low despite low job satisfaction, because there are few perceived opportunities for alternative employment.

Results indicate that RNs report an average level of job satisfaction of 67 percent, or a mean of 6.7 (1 is very unsatisfied and 10 is very satisfied). Currently, over 35 percent of this study's participants have confidence in labour market opportunities. However, as the economy continues to improve, resulting in the generation of more jobs and greater movement in the workforce, it can be expected that the level of confidence in the labour market will rise. This may result in many more RNs choosing to change their role within nursing, despite their level of satisfaction. Therefore, although it is important for management to maintain a continued focus on improving levels of employee satisfaction, factors affecting perceived opportunities and ease of movement are functions of the labour market and individual circumstances and are therefore out of the control of management. Although these results show that the measurement of job satisfaction remains a useful tool to identifying those employees who have ITLO, once these employees are identified, employers will need to further investigate the

factors contributing to the feelings of dissatisfaction in order to implement practical actions to increase satisfaction and retain them. In other words, improving retention cannot simply focus on levels of job satisfaction, but must consider the many factors affecting ITLO that can be manipulated or improved by policy and management.

11.2.3 Quantitative demands

Higher levels of quantitative demands were shown by the SEM results to increase ITLO ($\beta = 0.11, p = <0.001$). In fact, the SEM results showed that greater quantitative demands have the largest positive effect on ITLO, after work-life interference. Workload is made up of quantitative demands and has been defined as having too much work to do in the time available (Beehr et al., 1976). Such time stressors negatively impact on the psychological health of RNs (Teo et al., 2012). This can be compounded by the negative effects of shift work, poor staffing levels and increasing patient acuity (D. K. Boyle et al., 1999; T. L. Cowden & Cummings, 2012; Huntington et al., 2010; New Zealand Nurses Organisation, 2013).

11.2.4 Emotional demands – challenges and hindrances

The SEM results provide strong support to the growing body of research that suggests it is important to distinguish between two types of job demands: challenge demands and hindrance demands (Bakker & Sanz-Vergel, 2013; M. A. Cavanagh et al., 2000; LePine, Podsakoff, & Lepine, 2005). The nursing profession is known for having intense and demanding workloads, resulting in RNs feeling emotionally and physically exhausted and dissatisfied with their ability to provide what they regard as a sufficiently high level of care (Huntington et al., 2010). This is supported by this study which shows that increases in emotional demands that act as hindrances, such as aggressive and troublesome patients that act as a hindrance, are strongly associated with greater burnout ($\beta = 0.14, p = <0.001$) and ITLO ($\beta = 0.05, p = <0.001$). However, RNs consider their exposure to death, illness and human suffering as an emotional work demand that challenges them in a positive way. This type of emotional demand helps to decrease feelings of burnout ($\beta = -0.072, p = <0.01$), increase feelings of engagement ($\beta = 0.18, p = <0.001$) and decrease ITLO ($\beta = -0.06, p = <0.01$).

11.2.4 Work-life interference

The SEM results showed that work-life interference had the largest positive effect on ITLO ($\beta = 0.15, p = <0.001$). This was supported by the multiple regression results which showed that greater work-life interference increases ITLO ($\beta = 0.09, p = <0.001$). These results are in line with research that found many RNs work part-time or casual hours due to the need for work-life balance (New Zealand Nurses Organisation, 2011). The issue of work-life balance has become increasingly important with the increasing numbers of dual-career couples who are balancing work with home responsibilities such as caring for dependent children or adults (Luk & Shaffer, 2005).

11.2.5 Support from supervisors, colleagues and organisations

Support from supervisors, colleagues and organisations were determined by the SEM results to have a significant effect on ITLO. The SEM analysis particularly highlighted how greater supervisor support decreases ITLO ($\beta = -0.04, p < 0.001$). The effect of supervisor support on employee turnover is well documented (D. K. Boyle et al., 1999; T. L. Cowden & Cummings, 2012; Price & Mueller, 1981; Schluter et al., 2011; van der Heijden et al., 2009).

11.2.6 Autonomy

Greater levels of autonomy were shown by the SEM results to reduce ITLO ($\beta = -0.04, p < 0.001$). (Morrison et al., 2005). Autonomy has long been considered a work characteristic that can alleviate burnout, increase work engagement and improve RN retention (Bakker & Demerouti, 2007; D. K. Boyle et al., 1999; T. L. Cowden & Cummings, 2012). These results are in line with another study of RNs in New Zealand and the United States that found hospital-based, home care and district nurses value professional autonomy (Flynn et al., 2005).

11.2.7 Self-efficacy

The personal resource of self-efficacy ($\beta = -0.06, p < 0.001$) was shown by the SEM results to help decrease ITLO. An employee who has greater self-efficacy (the confidence to take on and put in the necessary effort to succeed at challenging tasks) will experience greater levels of engagement with their work and fewer feelings of burnout. This occurs because such employees tend to have a positive outlook and respond well to adversity (Luthans et al., 2004). Human resource strategies aimed at

enhancing the components of employees' self-efficacy and overall psychological capital can lead to a reduction in the perception of stress, the impact of stress on ITL and therefore reduce actual turnover (Avey et al., 2009). Indeed, a study of RNs found that improving the individual accumulated psychological state of RNs will have a positive impact on their job performance and retention intention (Sun et al., 2012).

11.2.8 Value congruence

The SEM results also showed that the personal resource of value congruence ($\beta = -0.04, p < 0.01$) decreased ITLO. Those RNs that feel their values align closely with their employer will experience fewer feelings of burnout, although value congruence will not help to increase levels of engagement. When RNs feel their values are aligned with their organisation they are less likely to turnover, even when experiencing feelings of job dissatisfaction (Dotson et al., 2014).

11.3 What factors contribute to registered nurses wanting to leave the nursing profession?

The data identified a number of factors as statistically significant predictors of ITLP: job satisfaction; quantitative demands, emotional demands (challenges); emotional demands (hindrances); work-life interference; supervisor support, colleague support; organisational support; autonomy; psychological capital (self-efficacy); value congruence; and career orientation.

11.3.1 Job satisfaction

Job satisfaction was identified as statistically significant by the multiple regression analysis for ITLP ($\beta = -0.23, p < 0.001$). This is in line with research which reports a strong correlation between job dissatisfaction and RN ITLP (van der Heijden et al., 2009; Zurmehly et al., 2009). Studying the role of job satisfaction in occupational turnover is important because it increases our understanding of the turnover process. Furthermore, job satisfaction has been shown to be more malleable than other factors such as occupational commitment (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002). For example, a study of over 1,000 RNs in the Netherlands found that RNs who perceived support from their supervisor and close colleagues were more satisfied

with their job than RNs who worked in a less supportive environment, resulting in less ITLP (van der Heijden et al., 2009). The study concluded that organisations should focus on the interpersonal factors within the work situation in order to affect RN ITLP through job satisfaction. This supports the recommendations of this study to improve factors such as social support from colleagues and supervisors, as this will increase job satisfaction and decrease ITLP.

11.3.2 Quantitative demands

The qualitative data reported that higher levels of quantitative demands increase ITLP. This was supported by the SEM data ($\beta = 0.13, p < 0.001$) which showed that greater quantitative demands have the largest positive effect on ITLP, after work-life interference. Workload may be defined as the degree to which the amount of work required interferes with the ability to meet patient needs and deliver high quality care (Alexander, Lichenstein, Oh, & Ullman, 1998). Indeed, the data collected from interviews in this study revealed that many RNs are concerned about the quantitative demands of their jobs and increasingly heavy workloads, which they said led to stress, the rationing of care and ultimately impact on their ability to develop therapeutic relationships with patients. This supports the findings of Huntington et al. (2010), who reported that RNs had intense and demanding workloads, resulting in them feeling emotionally and physically exhausted and dissatisfied with the ability to provide a quality of care they were happy with.

It is therefore important that managers and policy developers investigate ways to ensure that RNs feel less rushed in their jobs, so that they have more time to complete the tasks required of them and more time to spend interacting with patients. Ensuring adequate staffing levels during the shift of each RN may go some way to helping with this, as the workload may be more evenly shared. Further to this, allowing more flexibility and choice in the shifts that RNs work may help to reduce the stress of shift work and allow RNs to better balance their hours of work with their personal lives. This may also help to reduce feelings of work-life interference in those RNs who are struggling to combine their work duties with their home responsibilities.

11.3.3 Emotional demands – challenges and hindrances

Issues of emotional harm caused by bullying from colleagues and management were reported by the qualitative data, while the quantitative results reported issues with exposure to aggressive and troublesome patients. The SEM results showed that increases in emotional demands that act as hindrances are strongly associated with greater burnout ($\beta = 0.14, p < 0.001$) and ITLP ($\beta = 0.06, p < 0.001$). While hindrance demands are viewed as unnecessarily thwarting personal growth and goal attainment, challenge demands are viewed by workers as challenges to overcome in order to learn and achieve. Although exposure to challenge demands requires energy, it also contains potential gains (Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). Although exposure to both types of demands makes people feel tired, exposure to challenging demands do not necessarily make them feel stressed (Bakker & Sanz-Vergel, 2013). Exposure to death, illness and human suffering was considered by RNs as an emotional work demand that challenges them in a positive way, decreasing feelings of burnout ($\beta = -0.07, p < 0.01$), increasing feelings of engagement ($\beta = 0.18, p < 0.001$) and decreasing ITLP ($\beta = -0.11, p < 0.001$). However, exposure to emotional demands linked to aggressive and troublesome patients act as a hindrance, resulting in increases in burnout and ITLP. These results are in line with previous research in the Netherlands which found that RNs perceive work pressure as a hindrance job demand and emotional demands as a challenge job demand (Bakker & Sanz-Vergel, 2013).

The finding that challenging demands increase RN work engagement and decrease turnover are in line with the suggestion that a sense of altruism is associated with RNs choosing to stay in the profession (Dotson et al., 2014). Many RNs choose nursing because of the opportunity to help others, particularly those who are in vulnerable positions and because they want to fulfil a desire to contribute in a meaningful way to their community. A sense of altruism in the nursing environment can balance possible negative effects of economic factors and stress and may have independent effects on satisfaction and on ITL (Mitchell et al., 2001). Therefore, if RNs are feeling high levels of burnout or dissatisfaction with aspects of their work, their sense of altruism may be met through their exposure to challenge demands, helping to buffer the effects of burnout. Research using the job demands resources (JD-R) model found that employees working in teams with a strong shared perception of altruism were more

engaged and performed better as a team (Makikangas, Aunola, Seppala, & Hakanen, 2016).

11.3.4 Work-life interference

Qualitative results showed that greater work-life interference significantly increases ITLP. The SEM results supported this, identifying that work-life interference had the largest positive effect on ITLP ($\beta = 0.17, p < 0.001$). For many older RNs, an increasing need for work-life balance may be related to wanting to slow down and ease into retirement. They may be looking at ways to continue their earning potential while integrating their working hours into a lifestyle that allows them more flexibility and personal time. A motivation for older RNs to remain in the workforce is having flexible working hours (Graham et al., 2014). Finding ways to delay the retirement of RNs will be an important factor in addressing the issues of nursing shortages (Hasselhorn, Muller, & Tackenberg, 2005). Therefore, more flexibility regarding hours and choice of work will continue to be important to retain these RNs. However, over 50 percent of RNs in this study said they did not have access to flexible start and finish times and 27 percent did not have access to additional leave above the legal minimum requirements. With over 50 percent of RNs also reporting that they felt too tired after work to pursue personal interests and spend time with family and friends, work-life interference is a significant risk to the loss of RNs in the current workforce.

11.3.5 Support from supervisors, colleagues and organisations

Results of the qualitative interviews showed that support from supervisors, colleagues and organisations have a significant effect on ITLP. Interview participants highlighted the importance of effective leadership and good working relationships with managers. They talked of the importance of team work and interdisciplinary team relationships. Many participants said it was important that their organisation supported them by offering hours of work that fitted in with their family life. The SEM results also highlighted how greater supervisor support decreases ITLP ($\beta = -0.06, p < 0.001$). RNs often deal directly with their supervisors on a day to day basis, making this an important ongoing relationship. It is therefore important that supervisors themselves are provided with ongoing training and support to fulfil their role.

11.3.6 Autonomy

Interview participants highlighted a desire for more role authority and discretion. This was supported by the SEM results that identified greater levels of autonomy as reducing ITLP ($\beta = -0.06, p < 0.001$). Therefore, the organisation of work needs to include RN participation in decision-making, while a degree of autonomy is allowed at the level of conducting tasks (Bakker & Demerouti, 2007). Autonomy may also include the right of RNs to participate in decisions concerning patient care, the right to choose their own approach to patient care, the right to participate in discussions and the ability to follow their own values in nursing care (Varjus, Suominen, & Leino-Kilpi, 2003).

11.3.7 Self-efficacy and value congruence

Personal resources such as self-efficacy ($\beta = -0.11, p < 0.001$) and value congruence ($\beta = -0.06, p < 0.01$) help to decrease ITLP, according to the SEM results. These results provide important insight into potential initiatives for RN selection and ongoing employee development strategies. If self-efficacy is viewed as a fixed inherent trait, then this could be screened for during the selection process of nursing students and potential RN employees. It may be assumed that candidates who exhibit greater levels of self-efficacy will have more potential to do well in nursing and will be less likely to leave the profession at a later date. This is supported by research that shows RNs who go on to become Nurse Practitioners demonstrate high levels of self-efficacy (Gardner et al., 2008). If self-efficacy is viewed as a fluid state which people move in and out of at different times and within different contexts, then fostering self-efficacy in current employees becomes an important organisational development initiative.

11.3.8 Career orientation

Results of the multiple regression analysis indicated that greater career orientation is a statistically significant predictor of decreased ITLP ($\beta = -0.30, p < 0.001$). In fact, this factor showed the strongest relationship with ITLP in the multiple regression analysis. Career orientation refers to the extent to which an employee views their line of work as one that they wish to pursue for many years and indicates occupational commitment (Price, 2001; Gurney, 1997). Occupational commitment refers to an employee's attachment to their occupation (Lee et al., 2000; Meyer et al., 1993) and their belief in the values of their chosen occupation (Vandenberg and Scapello, 1994). Occupational commitment is linked with higher work engagement (Freund, 2005) and lower ITLP

(Hackett et al., 2001). It has been shown to be effective in predicting ITLP in nursing (Angerami et al., 2000; K. Lu et al., 2002). This study reported high levels of career orientation among RNs, with only 1.7 percent saying they do not consider their job as a long-term career. This is encouraging and may go some way to negating the effects of burnout and dissatisfaction. These results, along with those of self-efficacy and value congruence, highlight the potential for the use of these factors in the recruitment of RNs. For example, potential nursing students and employees could be assessed for a vocational-fit, where there exists a congruence between individuals' interests and abilities and the characteristics and requirements of their vocation (Holland, 1985).

Part 2: Implications for the job demands-resources model

11.4 Introduction

The previous section discussed the significant factors identified by this study that influence the decisions RNs make around whether to change their job within nursing or leave the nursing profession altogether. This section looks at the links between the findings of the study and the JD-R model.

11.5 Support for the job-demands-resources model

The results of this study support a comprehensive JD-R model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, et al., 2001) of nursing ITLO and ITLP via the impacts of job demands, job resources, personal demands and personal resources on burnout and engagement. Including two outcome variables enabled a comparison to be made, which has shown that the impacts are different for intention to leave the organisation and profession. At a theoretical level, the key findings are that higher engagement results in lower intention to leave the organisation and, even more strongly, lower intention to leave the profession. Burnout has significant effects on intentions to leave the organisation and the profession, both directly and indirectly through lower engagement. Preventing burnout is particularly important for organisational commitment while enhancing engagement is particularly important for professional commitment. In other words, RNs who experience burnout may consider changing their jobs within nursing, but they may not leave nursing altogether if they feel engaged with the profession. This is an important distinction for employers and policymakers to consider because a focus on improving engagement through self-efficacy, challenge demands and a reduction in burnout may offer the greatest solutions for the predicted nursing shortage.

In addition to the comprehensiveness of the variables included in the model, this study included RNs from primary, secondary and tertiary settings, while previous studies using the JD-R model to look at RNs have focused on hospital-based RNs only (Jourdain et al., 2014; Spence Lasinger et al., 2012). Given there is an increasing international focus on the delivery of primary healthcare and an increasing number of

RNs working outside the hospital setting, this study provides results that are more inclusive and have greater generalisability.

The results of the study add to our understanding of existing literature exploring how emotional demands affect RNs. This is the first study on a large national sample to separate emotional demands into challenge demands and hindrance demands in its analyses. The results provide strong support for the argument that it is important to distinguish between hindrance and challenge demands when applying the JD-R model (Bakker & Sanz-Vergel, 2013; LePine et al., 2005). In this study, exposure to death, illness and human suffering was considered by RNs as an emotional work demand that challenged RNs in a positive way, decreasing feelings of burnout, increasing feelings of engagement and decreasing ITLO and ITLP. However, exposure to emotional demands linked to aggressive and troublesome patients was perceived negatively, resulting in increases in burnout and intention to leave.

The findings on self-efficacy are also important, confirming research that shows that improving the psychological capital of RNs can have a positive impact on their job performance and retention intention (Sun et al., 2012). The JD-R model is often studied without personal resources; however, the results of this study highlight the importance of self-efficacy in reducing ITLP and therefore the importance of including personal resources in the JD-R model. Stress affects people in different ways and how they respond depends on the resources they have available to them. Strategies aimed at enhancing employees' psychological capital can lead to a reduction in stress, and the impact of stress on intention to leave (Avey et al., 2009). For example, resourceful work environments that encourage autonomy over tasks, goal setting and problem solving, and that provide opportunities to present ideas in meetings with colleagues and management, are likely to increase RN beliefs in their capabilities and therefore their self-efficacy (Hobfoll, 2002; Luthans, Avolio, et al., 2007).

Part 3: The development of a dynamic nursing workforce

11.6 Introduction

This section explores how these results might be used to influence the development of practical solutions to the predicted nursing shortage. Firstly, the type of health system that is needed to meet future demand is discussed, followed by an exploration of what type of nursing workforce will be required within that health system. There is then a discussion of what RNs are saying they need in order to function and engage in the workforce and twelve strategic themes of what will encourage RNs to stay are presented.

11.7 The health system need

The cost of providing health services through the current health system model is unsustainable in the long term (Ministry of Health, 2016b). The Treasury estimates that, if nothing were to change in the way we fund and deliver services, government health spending would rise from about seven to 11 percent of GDP in 2060 (New Zealand Treasury, 2012). It is essential that we find new and sustainable ways to deliver services, investing resources in a way that will provide the best outcomes possible for people's health and wider wellbeing.

The New Zealand Health Strategy (Ministry of Health, 2016b) states that New Zealand's health system sits strongly within the international community. Among the strengths listed are a publicly funded, universal health system with a committed and highly trained workforce; and health services with a strong focus on primary care and a widely supported focus on wellness. In regards to a committed workforce, the results show that approximately 66 percent of the nursing workforce is committed and plan to continue in nursing for the rest of their working lives. However, with a mean age of 48.8, the study also suggests that there might not be that many working years left in a large majority of the current workforce. In addition, 15 percent of RNs said that they want to leave the nursing profession as soon as possible. As previously discussed, a loss of this size could have serious ramifications in a climate of increasing demand due to the ageing population and increasing burden of disease.

In regards to focusing on primary healthcare and wellness, this is in line with the New Zealand Primary Healthcare Strategy (Ministry of Health, 2001) and the National Health Committee (2001). They agreed that the future healthcare system needs to be redesigned to have a greater emphasis on health promotion and preventative care, to deliver a continuum of care across hospital and community-based services and to involve a range of professionals who work within multidisciplinary approaches to decision-making. This requires a shift from the traditional hierarchical model of health where RNs work under doctors and health services are focused around hospital care, because traditional leadership models with a top-down approach may no longer work in the modern health environment (B. Lee, 2016). More healthcare needs to be provided closer to where people live and work and health practitioners need to work in multidisciplinary teams. The RNs in this study have identified that they want to be working in teams with good support from supervisors, colleagues and organisations. They want to be able to navigate teamwork whilst maintaining a sense of autonomy and have the flexibility to harmoniously blend their working lives with their personal lives.

11.8 The nursing workforce need

The nursing workforce is the largest healthcare workforce and will play a critical role in delivering the New Zealand Health Strategy (Ministry of Health, 2016b), which sets out a focus for change by providing five strategic themes: people powered; closer to home; value and high performance; one team; and smart system (Figure 11-1). Being ‘people powered’ requires health workers who seek to understand people’s needs and preferences, who partner with people to design services to meet their needs and who communicate well and support people’s navigation of the health system. The results of this study show that RNs want to have autonomy in their roles and need a reduction in their daily work demands so they have more time to interact with patients. This is essential if RNs are to develop therapeutic partnerships with patients, resulting in patient-centred and patient-led care. This is in line with the concept of the empowerment of healthcare workers, where the empowerment of RNs has a direct relationship to patient empowerment and increased patient ability to self-care (Ministry of Health, 2016b).



Figure 11-1: Five strategic themes of the New Zealand health strategy

The strategy's theme of 'closer to home' is about providing care closer to where people live and work and focusing on promoting wellness in children, young people and families. Although hospital specialist services for complex treatments or surgery will always be needed, new skills and technologies are allowing many services to shift closer to home. Therefore, the way that services are delivered needs to be redesigned and the healthcare workforce needs to have the skills to provide a wider range of services in community settings. 'Value and high performance' involves delivering better outcomes relating to people's experience of care and building a culture of performance and quality improvement that values the different contributions the health workforce can make to improving services and systems. It requires a health workforce that strives for excellence and improvement. These strategy requirements will increasingly depend on the skills of RNs who show strong self-efficacy and who are able to work autonomously within varied settings. The results of this study highlighted how important it is for RNs to be able to use personal judgment and initiative in their work.

'One team' refers to health practitioners operating in a team system that works together with the person and their family at the centre of care. This will mean developing new or stronger skills for some, especially those working in teams containing a range of

health specialties to support integrated care that is closer to home. There is also a need to reduce the barriers that currently prevent people from using their skills flexibly and fully. Again, these requirements call for highly skilled RNs who are able to work as autonomous practitioners and have the flexibility to adapt to a range of health settings. The RNs in this study identified that they want flexibility and the freedom to be able to make their own decisions on the job, but they also highlighted how important it is for them to work within teams with strong support from supervisors and colleagues. Research has shown that social support, particularly supervisor support, for RNs helps to strengthen the relationship between job autonomy and work engagement (Vera, Martinez, Lorente, & Chambel, 2016). If RNs receive strong social support they feel more secure and confident in their decisions and engage in their work more. Another important issue highlighted by this study was the need for RNs to feel a sense of value congruence with their organisation, where everyone within the team system was focused on being patient-centred and delivery good quality care.

Having a 'smart system' refers to the increasing use of advancing technologies in healthcare. Electronic health records, for example, enable people to access their own health information and gain more control of their own health, while health providers can share electronic information with others so that all providers give people timely and consistent care. Examples of this in action are shared care plans, which give people with complex long-term conditions ownership of their healthcare, supported by a multidisciplinary team. A health navigator takes responsibility for coordinating the care of each person with a shared care plan. As the largest group within the healthcare workforce, RNs will increasingly be required to act as navigators, working alongside patients to help them manage their way through the health system. They will be the front-line staff who helps to engage patients in their own healthcare, who connects them with the services they need from their home or in the community, or the hospital setting when needed.

Leadership by clinicians at the point of patient contact is essential within complex healthcare systems. If patient outcomes are to be improved through the provision of evidence-based care, then the integration of activities and processes within and across disciplines and services is required (M. Casey, McNamara, Fealy, & Geraghty, 2011). A democratic lateral form of leadership as practice, moving away from a prime focus

on those in designated positions of authority, is being advocated for in general management and organisational development literature (M. Casey et al., 2011). Chai Chuah (B. Lee, 2016) suggested that what was required for the future health system were three types of leadership from staff: strategic thinkers who work alongside high performing implementers who are held together by networkers. It is likely that RNs will increasingly encompass all three types leadership.

11.9 What registered nurses say they need

The success of the future healthcare system relies heavily on having a large dynamic nursing workforce. The system needs them, but what do they need from the system? When a nursing shortage is imminent due to the ageing workforce and a workforce shortage is predicted just when they are needed more than ever due to the ageing population and increasing burden of chronic disease, what can be done to encourage RNs to stay? As the current health system needs to adapt to meet the changing needs of the population and as the major component of that health system, the roles of RNs and the ways in which they work also need to adapt. The results showed RNs were not only ready to be empowered, but need to be if they are to remain engaged in their work and in the profession. Just as the New Zealand Health Strategy sets out five strategic themes focused around changes that will see all New Zealanders live well, stay well and get well, this study identifies twelve strategic themes as identified by RNs themselves that focus on reducing burnout, increasing engagement and encouraging RNs to stay (Figure 11-2).

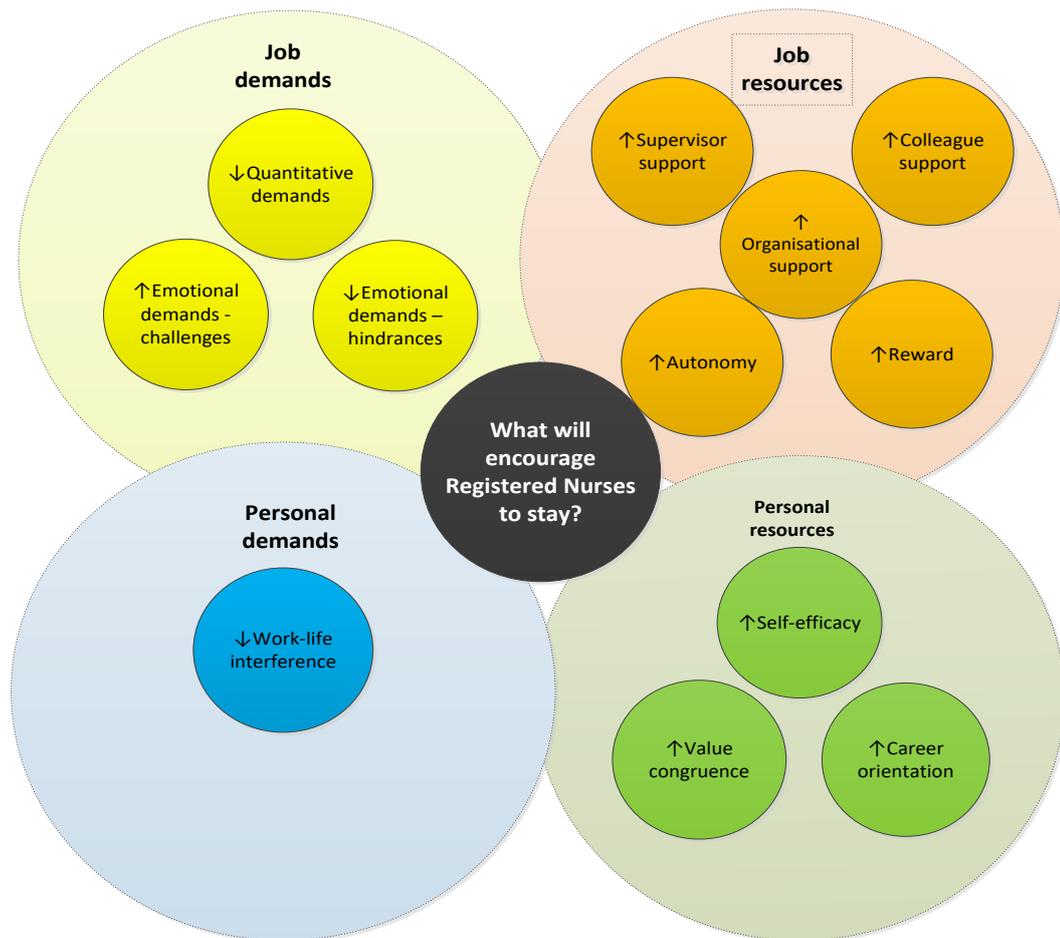


Figure 11-2: Twelve strategic themes of what will encourage RNs to stay

Job demands

In terms of job demands, the results showed that RNs needed a reduction in their daily quantitative demands so that they were not always feeling rushed, had time to complete all tasks required of them and had time to interact with patients in order to build therapeutic relationships. For many RNs there was a need to better manage the stressful emotional demands (hindrances) caused by exposure to aggressive patients and bullying by colleagues and managers. These results showed that RNs value the emotional demands (challenges) that engage them in the therapeutic relationships with their patients. They wanted to be able to help people who were sick and dying as it fulfilled a sense of altruism. Further to this, facing the challenge of dealing with difficult people and developing skills in managing difficult situations can lead to a sense of achievement and satisfaction.

Personal demands

Regarding personal demands, this study highlighted the growing importance of improving work-life balance for RNs. Many RNs were balancing their work with responsibilities at home and many older RNs wanted to phase in their retirement while continuing to work. Nursing is not a traditional nine-to-five, five-days-a-week profession. Patients require care at all times of the day, every day. This should provide RNs with a greater selection of working hours to meet the preferences of those, for instance, who prefer to work nights while others may prefer days. However, many RNs did not like rotating shift work that they have little control over. What RNs wanted was access to flexible start and finish times, the ability to choose their shifts and to be able to work part-time if they wish. They wanted to be able to take time off work when needed and for those with young children, have access to extra parental leave provisions above the legal requirements. Fulfilling these requests may present challenges in terms of financial and staffing resources, so more investigation is needed to find ways for the health system to support organisations in the provision of work-life balance for RNs.

Job resources

This study provides further evidence of the importance of job resources in the retention of RNs. Of particular value is the support they receive from the immediate supervisor. However, RNs want both supervisors and colleagues who appreciate the value of their work, give them positive feedback and supportive advice and who are ready to help them with the performance of their tasks when needed. Further to this, RNs need to feel that they are well supported by the organisation they work for. This may include factors such as pay, access to flexible working hours and safety from bullying, which results in a general feeling that those above them in management positions care about their well-being and satisfaction. Pay is one aspect of a broad consideration of the resources that support them. RNs want to feel fairly rewarded for their efforts. This may involve being paid fairly in comparison to others, but also involves promotion opportunities and receiving respect and recognition. Another critical job resource that RNs have shown they want in their work is a sense of autonomy and the ability to make decisions within the workplace.

Personal resources

The results align with other research that suggest the importance of personal resources in employee turnover (Bakker & Demerouti, 2007; Bakker & Sanz-Vergel, 2013). Those RNs who are high in self-efficacy tend to have a positive outlook, display confidence in their work area and respond well to adversity. When self-efficacy is considered a personal state, rather than a trait, it provides opportunity for ongoing development of self-efficacy. These attributes result in lower ITL. In terms of value congruence, results showed that it was important for RNs to feel that their employer's values align with their own, particularly in reference to putting quality of care of the patient first. Career orientation was also shown to be an important predictor of ITL, with those RNs reporting that they consider nursing a long-term career also reporting lower ITL.

Part 4: Limitations, conclusions, implications for policy and practice and future research

11.10 Limitations

Controlling for nested effects

Additional analysis was conducted controlling for District Health Board nested effects and this model was compared with the original model. Results showed that the standardised indirect effects and total effects were only different at the third decimal point. Considering 300 respondents did not respond to the question about DHB, had the decision been made to control for this nested effect, the sample would reduce by 300. Therefore, because the results were almost the same, the decision was made to report results from the larger sample without controlling for DHB nested effects. However, future research may benefit from controlling for nested effects relating to location.

Cross-sectional design

The findings come from a cross-sectional design. This means that the results may not provide definitive information about cause-and-effect relationships because the data is collected from a single moment in time. However, many question items were retrospective and asked participants to reflect on what they had done in recent years.

This may go some way to balancing the limitations of a cross-sectional design. Although the study identifies RNs with ITL, it does not follow up these same RNs to discover whether their intention resulted in actual turnover behaviour. Therefore, further longitudinal study designs are recommended.

Data collection and analysis

Due to the complexity of nursing ITLO and ITLP, many key variables were identified through the literature and interviews and were measured in the survey. The length of the survey may have resulted in respondent fatigue, which can lead to higher non-response or effortless guessing and lower quality data (Ruel, Wagner, & Gillespie, 2016). For example, 334 participants did not complete the final demographics section. Attempts were made to avoid respondent fatigue, including; striving for the simplest layout of questions; considering the questions from the perspective of the participants and constructing them to suit; conducting a pilot study; including a cover letter emphasising the importance of the respondent's participation; thanking participants for their time; and ensuring anonymity. A reward for completing the survey was also offered as participants went in the draw to win spending vouchers. It is recommended that future studies attempt to use a more concise survey in order to avoid missing data.

This study used qualitative and quantitative methods to achieve triangulation. Limitations of triangulation identified in the literature include using incorrect methods and the inability to articulate its use clearly (Oberst, 1993). There are multiple strategies for overcoming these limitations. First, it is important to have research questions that are focused, concise and relevant (Begley, 1996; D. Casey & Murphy, 2009). This study had two concise questions guiding the data collection. In addition, the qualitative data collection used an interview schedule to explore themes related to the objectives of the study. This complemented the quantitative data by informing the development of the survey. Further to this, relevant literature informed the development of focused research hypotheses. Creating an understanding of the use of triangulation is a strategy for overcoming challenges (D. Casey & Murphy, 2009) and this study used triangulation to create a better understanding of the data and to ensure their completeness.

Validity

The literature suggests that each method of data collection used in triangulation research should be independently complete (D. Casey & Murphy, 2009). This study ensured that each method was rigorous and complete. For the qualitative data, an inter-rater method of reliability was used to ensure that the transcript analysis of the interviews consistently portrayed the phenomena being studied. For the quantitative data, validity was ensured by generating survey items based on the literature and interviews, testing a measurement model before the structural model in the SEM analysis, achieving standardised factor loadings higher than 0.5 and correlation coefficients among the constructs lower than 0.85.

Respondent effects

During the interview data collection, the researcher's attributes such as age, body language, experience, or profession may have impacted on study respondents' behaviour and responses. Because interviews involve social interaction with another person, this can lead to respondents taking social norms into account when responding, resulting in social desirability bias (the desire of respondents to present themselves in the best possible light), resulting in the over-reporting of desirable behaviours and under-reporting of undesirable behaviours. In addition, participants could have responded to questions in a particular manner due to awareness they were participating in a research study (Hawthorne effect), potentially influencing the qualitative findings of this study. Due to the nature of this study, employees may have been hesitant to discuss sensitive issues regarding their employment in fear of jeopardising it. Confidentiality and anonymity of participants was ensured to help counter this.

Further to this, the quantitative data collection was based on self-reports, possibly resulting in response bias, or common method bias. A Harman's one-factor test using SPSS was conducted (Podsakoff et al. 2003) to examine the effect of common method bias, which involves running factor analysis by specifying a one-factor solution and if the one-factor does not explain the majority of the total variance, then the method factor does not exist. The results showed that the single factor explained only 27% of the total variance, which is far less than the cut-off of 50% for common method variance. Some researchers suggested that a measurement model with an unmeasured

latent method factor to test for common method bias is better than the Harman one-factor test for examining common method bias (Bagozzi, 1984; H. A. Richardson, Simmering, & Sturman, 2009). However, because of the complexity of the data set, the measurement model with all items loaded on a latent common method factor did not give a feasible solution. It is not uncommon for this method when the measurement model has many items. Other attempts to minimise respondent bias included using measures with well-established construct validity and internal reliability, structuring the questionnaire to have separation between the predictors and criterion and including reversed wording items.

Sample generalisability

Data were collected from RNs working within New Zealand. The majority of respondents identified as NZ European, with a smaller percentage identifying as Māori, Pacific Island and other non-NZ European groups. Therefore, the application of the results may be not appropriate with populations outside New Zealand, or with Māori or Pacific Island populations.

11.11 Conclusions

11.11.1 Introduction

The nursing workforce make up the largest component of the healthcare workforce and play a critical role in providing healthcare in hospitals, primary care settings and homecare settings. There is little doubt that the combination of an ageing population, an increasing prevalence of chronic disease and an ageing nursing workforce is going to result in a nursing workforce shortage both globally and within New Zealand. Although there is currently a nursing workforce strong in numbers, many of these RNs have increased their hours and returned to the profession to supplement their family income during the economic recession and it is likely many of these same RNs will once again reduce their hours or leave nursing as the economy improves. The accumulation of these factors will have serious complications including financial strain for governments and organisations, lost productivity, decreased efficiency and most importantly, the inability of healthcare institutions to meet patient needs and provide quality care. Solutions to the anticipated nursing shortage should focus on the motivations of RNs.

11.11.2 The role of burnout and engagement

The JD-R model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, et al., 2001) was used to examine what factors contribute to RN ITLO and ITLP, either directly or through the mediating effects of burnout and engagement. The original JD-R model's focus on demands and resources related to the work environment was extended to incorporate demands and resources related to the employee's home environment and their individual psychological resources. Moreover, this study was able to integrate and study simultaneously in one model many different general as well as profession-specific job demands and resources that are known from previous studies to influence RN ITL. The results provided support for the extended JD-R model among a large sample of RNs. The theoretical framework (Demerouti, Bakker, Nachreiner, et al., 2001; Schaufeli & Bakker, 2004) was successful in revealing two simultaneous underlying processes in RN ITL. The first process can be called 'energetical', where job demands and personal demands predict ITL through burnout. The second process can be called 'motivational', in which job resources and personal resources decrease ITL through work engagement.

With approximately 60 percent of the RNs in this study reporting feeling tired and 20 percent reporting that they did not feel like going to work in the morning, burnout and engagement are an important issue in the current workforce. Results from the multiple regression and SEM analysis showed that both ITLO and ITLP are affected by burnout and engagement. It was hypothesised that greater job demands including quantitative demands, emotional demands (hindrances) and personal demands (work-life interference) lead to an increase in burnout and an increase in ITL. The results confirmed that increases in each of these factors results in greater feelings of burnout and greater ITLO and ITLP. This is in line with research that shows that burnout is linked to job demands such as heavy workloads, emotional demands and poor working environments (Buerhaus, 2009; Christmas, 2008; J. Cohen et al., 2009). Nursing work can contain high work pressure and chronic emotional demands (Halbesleben & Buckley, 2004). Therefore, finding ways of reducing workloads, reducing exposure to negative emotional demands and creating supportive and flexible working environments, will contribute to reducing burnout in RNs.

It was hypothesised that greater emotional demands (challenges), job resources (supervisor support, colleague support, organisational support, autonomy, professional development) and personal resources (psychological capital-self-efficacy, value congruence) lead to a decrease in burnout, an increase in engagement and a decrease in ITL. The results confirmed that greater levels in all but one (professional development) of these factors results in decreased burnout and decreased ITL. They also all resulted in greater work engagement, except for professional development and value congruence. Professional development was not found to have a statistically significant relationship with either ITLO or ITLP, despite the issue being raised in the literature and the qualitative interviews.

The SEM results of this study clearly showed that greater job demands and personal demands increase RN burnout and ITL. However, the results also emphasised the dual role of job resources. RNs who are able to draw upon job resources like supervisor support, colleague support, organisational support and autonomy, may become more engaged in their work and have less ITL. However, a lack of job resources may contribute to burnout and result in decreased engagement and increased ITL. Therefore, energetical and motivational processes appear to intertwine, since job resources and job demands are unlikely to exist completely independently (Halbesleben & Buckley, 2004; Schaufeli & Bakker, 2004).

11.11.3 The economic context

The state of the economy was identified through the literature review and qualitative interviews as having a significant effect on the decisions made by RNs. Approximately 50 percent of the survey participants agreed that they had increased their participation in the labour market in some way due to financial need, supporting previous findings that recession influenced the decisions of many RNs to participate in the labour market and the number of hours to work (Buerhaus, 2009). This is because, as RN spouses' lose their jobs or worry that they might be laid off, many non-working RNs re-join the workforce and others, already working, increase their hours. This study adds weight to the prediction that these groups of RNs may be at greater risk of reducing their hours of work or leaving the profession entirely as their household income improves.

During a recession, increased financial pressure for families and a decrease in job vacancies, means RNs may be less inclined to seek alternative employment or choose to retire, even if they are dissatisfied with aspects of their work (S. Brewer, 2010). However, over 35 percent of this study's participants identified confidence in labour market opportunities by reporting that they feel they could find an acceptable alternative job within a year. There is risk that if these RNs become dissatisfied with their jobs they will search for alternative jobs, compare their options with the current job and leave if any of these alternatives are judged better than the current situation. Although this may not result in withdrawal from the workforce, it does contribute to the culture of turnover within nursing which has negative effects on productivity, ability to provide quality care and staff morale (S. J. Cavanagh & Coffin, 1992; North et al., 2013; Shields & Ward, 2001).

With almost half of survey participants agreeing they would like to change their nursing job, the results of this study support the growing evidence that the nursing profession suffers from a culture of turnover. One study has argued that nurse managers are increasingly displaying an indifference to, and tolerance of, high turnover rates (North et al., 2013). This view of turnover as normative is also reported in relation to low-skilled workers in the hospitality industry (Davidson, Timo, & Wang, 2010) and could be considered as inconsistent with nursing as a highly skilled and valued knowledge workforce. However, highly-skilled workers may also display greater turnover because their skills are in demand and they have more options. This turnover can represent a positive development of knowledge and skill for the worker and the workforce, and may also create space for less experienced workers to 'move up the ranks' and take up those roles that have been vacated.

While it is reassuring that over 66 percent of RNs plan to continue working in nursing for the rest of their working lives, it is concerning that 15 percent would like to leave the profession as soon as possible. A loss of 15 percent of New Zealand's current nursing workforce could have serious ramifications in a climate of increasing demand due to the ageing population and increasing prevalence of chronic disease. With the looming uncertainty surrounding the future of the nursing workforce, it is advised that nursing executives assess their nursing staff's attitudes toward their jobs and identify

initiatives to improve retention (Buerhaus, 2009). This study highlights the need for retention initiatives that will help engage those RNs considering leaving the profession.

11.11.4 Summary

This study has enhanced previous research on the turnover of RNs by evaluating the motivations of a large sample of RNs who are diverse in age, background, area of practice and level of experience. It is unique in that it collects data from interviews and a survey and triangulates the data with regression analysis and structural equation modelling to identify those factors which have the largest effect on RN motivation. The reasons why RNs choose to leave an organisation or the profession are varied and complex. Previous knowledge from both organisational behaviour and human resource management and nursing-specific literature has been combined, thereby contributing to new understanding of the causes of nursing turnover. The use of the JD-R model to frame the evaluation has highlighted the significance that employee burnout and work engagement play in RN motivation. The results show that focusing on initiatives that work to reduce burnout and improve engagement may encourage RNs to work more and stay working longer despite their changing circumstances. The New Zealand Health Strategy (Ministry of Health, 2016b) states that a strength of New Zealand's health system is a growing best practice evidence base developed through research. The results of this study will contribute towards focused and practical solutions for the development of policy and practice that helps to engage RNs in their work and helps to create a dynamic burgeoning workforce that is able to meet the predicted demand.

11.12 Implications for policy and practice

Creating a workplace in which activities that empower patients are led by RNs, with those RNs being empowered by their organisations, is conceptually parallel to Kanter's (1993) notion of creating conditions in the work environment that maximize employees' ability to accomplish work goals (Kanter, 1993). Organisational structures need to enable access to support and the resources necessary to do the job. This is in line with the JD-R model (Demerouti, Bakker, Nachreiner, et al., 2001) and, as this study has shown, RNs who are able to draw upon job resources, such as supervisor support, colleague support, organisational support and autonomy, are more likely to

be positively engaged in their work, while a lack of important job resources may contribute to burnout. The performance of leaderful practice by RNs depends on system support, as well as on how empowered they feel psychologically (Armstrong & Laschinger, 2006). The New Zealand Health Strategy (Ministry of Health, 2016c) offers a roadmap of actions to guide the required change in the system suggested by their five strategic themes. In a similar fashion, this study has developed strategic actions for change focused on improving RN retention within the system. Guidelines towards these changes are summarised in Table 11-1:

Table 11-1: Strategic actions for change

Job demands	
Quantitative demands	Adequate staffing levels on all shifts to reduce workload
	Patient-centred care policies
Emotional demands (hindering)	Foster supportive workplace culture with workplace social support policies
	Workplace training to identify and address bullying
Emotional demands (challenging)	Time to interact with patients
	Access to free counselling support
Returning to work	Review time and financial demands of returning to work
	Improve PDRP support, including paid time
Personal demands	
Work-life interference	Staffing levels that enable shift flexibility
	Time for supervisors to spend on creating rosters
	Flexible start and finish times
	Access to part-time and casual work
	Ability to request time off when needed
	Extra parental leave provisions above legal requirement
	New roles for older RNs that are flexible and less demanding physically (i.e. support roles, mentors)
Job resources	
Supervisor support	Ongoing training and support for supervisors to be interactive leaders
Colleague support	Foster supportive culture within nursing teams through collaborate practice and a common goal structure
Organisational support	Policies that support work-life balance (flexibility)
	Rewards (pay, promotion, respect and recognition)
Autonomy	Ongoing development of independent practitioner roles
	Self-managing teams through participative management
	Improve influence of RN leaders at executive decision-making level; being part of executive management teams and clinical governance groups
Reward	Equal pay for equal work; higher pay for better performance
	Systems for supervisors to openly recognise RN efforts
Personal resources	
Value congruence	Organisational policy is patient-centred
	Supervisors are patient-centred
Self-efficacy	Foster self-efficacy in RNs through goal-setting, problem analysis, and opportunities to present ideas in meetings
Career orientation	Vocational-fit analysis for potential nursing students and employees
Image of nursing	Develop initiatives that raise the public profile of nursing as a knowledgeable and skilful profession
	Encourage RNs to publicly communicate their professionalism and contribution to healthcare

11.12.1 Reduce quantitative demands

Quantitative demands make up the daily workload that RNs face. A high workload can be defined as being a combination of having too much work to do in the time available (Beehr et al., 1976) and the degree to which the amount of work required interferes with the ability to meet patient needs and deliver high quality care (Alexander, Lichenstein, Oh, & Ullman, 1998). Using pre-validated measurement tools, this study assessed levels of quantitative demands by asking RNs questions around whether they have enough time to complete their tasks, if they have time to pause in their work and whether they have enough time to talk to patients (Hasselhorn et al., 2008; Hasselhorn, Muller, & Tackenberg, 2005). The results showed that many RNs felt their workload was too demanding, leading to increased burnout, decreased engagement and greater ITL.

This study has identified that RNs need more time to complete their tasks and to interact with patients. This is line with research identifying a need for senior management to provide support to RNs to minimise the increasing aspects of managerial and administrative work unrelated to patient care (Teo et al., 2012). A focus on having adequate staffing levels for each shift and a good skill mix of RNs on duty may help to alleviate the workload burden for individual RNs and create a team approach where RNs support each other by sharing tasks and knowledge. Workplaces also need to be focused on delivering patient-centred care, with a priority placed on allowing time for RNs to develop therapeutic relationships with patients. Such initiatives may require a review at both the organisational level and the government funding level to explore how, given the existing financial constraints, funding can be used more effectively to manage, for example, the existing RN resource mix.

11.12.2 Reduce hindering emotional demands, support challenging emotional demands

High levels of emotional demands that result in high levels of emotional stress are predictive of ITL (Li et al., 2010; O'Brien-Pallas et al., 2006). However, emotional-labour researchers argue that emotion may not necessarily be stressful, but may instead be rewarding and create positive outcomes (Brotheridge & Grandey, 2002). This study measured emotional demands with pre-validated items developed specifically for

healthcare professions (de Jong et al., 1999) with the results identifying two unique types of emotional demands. While exposure to aggressive and troublesome patients was linked to increased burnout, decreased engagement and greater ITL, the opposite was true of exposure to illness, suffering and death which were linked to decreased burnout, increased engagement and less ITL. This is line with other research showing that, given the nature of nursing work, facing illness and death may be what RNs expect from their work and may indeed satisfy a sense of altruism, therefore motivating them to work harder and become more engaged in their work (Bakker & Sanz-Vergel, 2013; McQueen, 2004). However, while emotional intelligence has been identified as playing an important part in the establishment of therapeutic RN–patient relationships, there is a risk of burnout if the emotional demands are prolonged or intense (McQueen, 2004). For RNs who are continually exposed to high levels of death and suffering, it may be important to provide easy access to ongoing counselling support to ensure that such exposure does not contribute to emotional burnout rather than engagement.

The RNs in this study identified that they need to feel safe from bullying from patients, as well as from colleagues and management; it is therefore important that workplaces focus on providing a supportive and nurturing culture that has zero tolerance of physical and emotional violence. This may involve training supervisors and nursing teams on how to better identify and address bullying in the workplace.

11.12.3 Reduce work-life interference

The results of this study support other research that shows high levels of work-life interference increases RN ITLP (van der Heijden et al., 2009). Registered nurses highlighted how important it is for them to feel like they have some control over their work scheduling so they can achieve better work-life balance. Many said they work part-time to care for dependent children, while many others were gradually phasing in their retirement. It is therefore important for workplaces to be able to negotiate flexible working times with RNs, allowing them some ability to choose their hours, as well as providing access to time off when needed and if possible, extra parental leave above the minimum legal requirements. This would require adequate staffing levels that enable the flexibility to accommodate shift requests, as well as sufficient time for supervisors to spend on developing rosters. This may increase costs for organisations, so an exploration of how to effectively use limited funding is needed. Further to this,

developing new roles for older RNs that are less physical and can be done on a part-time or casual basis may help to delay retirement and retain the experience and knowledge of these RNs in the workforce for longer. This may include teaching, support and mentorship roles.

11.12.4 Improve support from supervisors, colleagues and organisations

The results are in line with research that shows social support from colleagues and supervisors, as well perceived organisational support, helps to decrease burnout, increase work engagement and results in lower ITL (Bakker & Demerouti, 2007; Gutierrez et al., 2012; Schaufeli et al., 2009; Teo et al., 2012). The RNs identified they need supervisors and colleagues to appreciate their work, give supportive advice and help with their tasks. This highlights the need for workplaces to foster a supportive culture within nursing teams and supports the evidence that senior management need to implement a variety of workplace social support policies (Teo et al., 2012). It also shows the importance of providing adequate training and ongoing support to those RNs working in supervisory or management positions in order to help them to perform well in their roles and to become interactive leaders. For example, previous research has shown that RNs want leaders who have good communication skills, encourage innovation, allow flexibility and recognise and acknowledge achievements (Hansen et al., 2007). Further to this, RNs want to feel that their organisation cares about their well-being. This may include policies that support better work-life balance (schedule flexibility) as well as access to ongoing rewards including pay raises, promotion opportunities and some form of feedback system where RNs are recognised and thanked for their work efforts.

11.12.5 Improve autonomy

Having a sense of autonomy over one's work leads to better work engagement and lower ITL (Bakker & Demerouti, 2007; Hallberg & Schaefer, 2006). The RNs identified a need to use personal initiative and judgement in their work and to be able to make their own decisions on the job. This will require a continued shift in the traditional view of RNs as 'handmaidens' working under the direction of doctors. Many RNs are already working with much more autonomy in independent practitioner roles, such as nurse practitioners and long-term condition RNs. Nurse practitioners

working in community-based settings are able to improve coverage of and access to healthcare and coordinate complex care for a wide range of patients (Kooienga & Carryer, 2015). Continued development of such autonomous roles with expanding scopes of practice that include the ability to perform tasks, such as prescribing medication, will help to create a skilful and mobile nursing workforce that has the flexibility to work in partnership with patients in their homes and communities. Where the organisational structure allows, workplaces could adopt a culture of self-managing teams where employees have a voice and are encouraged to think critically and participate in decision-making. Developing autonomy at the nurse leader level is also crucial. Roles that enable nurse leaders to provide efficient and effective care to patients requires access to authority and empowerment, including improving the visibility of nursing leadership through greater inclusion and influence at the executive decision-making level (Hughes, Carryer, & White, 2015).

11.12.6 Improve rewards

The effort-reward imbalance model (Siegrist, 1996) emphasises the need for employees to feel they are being fairly rewarded for their effort, including rewards of pay, respect and career opportunities such as promotion prospects. While some research concluded that the impact of pay on RN turnover intention was small (Frijters et al., 2007), many studies did suggest a strong relationship between pay and turnover (M. F. Chan et al., 2009; Estry-Behar et al., 2007; Lum et al., 1998; Price & Mueller, 1981). The results in this study showed that while the issue of pay may not significantly affect whether RNs choose to leave the profession, it did influence whether they choose to change their organisation. This is in line with research showing many RNs leave their jobs in non-hospital settings to work in hospitals, presumably to take advantage of higher earnings and greater benefits (Buerhaus et al., 2009). If the future healthcare system requires proactive primary care, then the pay and benefits offered within the primary care setting need to satisfy RN need for equal pay for equal work. While it may have been historically that specialist RNs in tertiary settings receive greater pay due to greater levels of knowledge and skill, highly skilled and specialised RNs also work in primary and community care. Primary care RNs need to feel they are being paid fairly in relation to other RNs with the same level of knowledge and skill. Further to this, it is important that organisations and immediate supervisors find ways to openly recognise the efforts and achievements of RNs so they feel valued and respected.

11.12.7 Strive for value congruence

The results supported the literature that said it is important for RNs to feel an alignment of values with their organisation (Dotson et al., 2014). Many RNs choose nursing because they want to fulfil a sense of altruism by helping others; however there is often a perceived lack of congruence between the intent of nursing (to care for patient well-being) and the need for tight management of costs and efficiencies by managers. An RN's sense of altruism can lead to higher satisfaction with a job and to increased behavioural intentions to stay in the profession (Dotson et al., 2014). This again emphasises the need for organisational policy and managerial practice to be focused on the delivery of patient-centred care. This involves respectfully involving the patient in a way that helps RNs provide care that is concordant with patients' values, needs and preferences while enabling patients to participate in their healthcare (D. Boyle, Dwinnell, & Platt, 2005; Gerteis, Edgman-Levita, Daley, & Delbanco, 1993).

11.12.8 Strive for self-efficacy and career orientation

The self-efficacy component of psychological capital refers to an individual's positive psychological state of development characterised by having the confidence to take on and put in the necessary effort to succeed at challenging tasks (Luthans, Avolio, et al., 2007; Luthans et al., 2004). Resourceful work environments, such as those that allow employees autonomy over their tasks, are likely to increase their beliefs in their capabilities and therefore their self-efficacy (Hobfoll, 2002). Employees develop a positive self-regard and are thereby motivated to pursue their goals and experience higher levels of work engagement (Luthans & Youssef, 2007). Human resource strategies aimed at enhancing the components of employees' self-efficacy and overall psychological capital can lead to a reduction in the perception of stress, the impact of stress on ITL and therefore reduce actual turnover (Avey et al., 2009). The results supported this, showing that those RNs who were high in self-efficacy had less ITL. This provides the opportunity for potentially powerful ongoing employee development strategies. Organisations and managers should look at initiatives to support and grow the self-efficacy of RNs. This may include encouraging RNs to set goals, analyse problems and find solutions, as well as providing opportunities for them to present ideas in meetings with colleagues and management.

In terms of career orientation, it will be beneficial for potential nursing students and employees to be asked the extent to which they view nursing as a long-term career, as greater levels of career orientation reduce ITL (Price, 2001). This is line with vocational-fit theory, which refers to the congruence between individuals' interests and abilities and the characteristics and requirements of their vocation (Holland, 1985). This has been linked to improved job satisfaction and in-role performance (Spokane, 1985; Tranberg, Slane, & Ekeberg, 1993; Vogel & Feldman, 2009).

11.12.9 Reduce the demands of returning to work

Issues of returning to work after a period of absence were not shown by the quantitative data to significantly affect RN ITLO or ITLP. However, many of the interview participants in this study discussed the difficulty of returning to nursing practice after time away, for instance to have children. Challenges included keeping up to date with changes and technologies, as well as the time and costs involved with re-registering. They suggested this as an important factor behind people choosing not to return to the nursing profession after an absence. To return to nursing practice in New Zealand after a five year absence, RNs are required to successfully complete a competence assessment programme. These can range in length from six to eight weeks, or extend to 12 weeks of clinical time if necessary (Nursing Council of New Zealand, 2012).

It is also expected that RNs maintain their professional development and recognition programme (PDRP) to demonstrate continued competence. Previous research has reported RN concern about the onerous nature of PDRP, particularly for those returning to work, who have been ill or have been on parental leave (New Zealand Nurses Organisation, 2011). These results suggest that a review of the requirements for both returning to practice and ongoing PDRP may help to reduce the burden on those RNs who want to return to nursing practice. Research by Carryer et al. (2007) found that having increased knowledge about the PDRP was associated with more positive attitudes, affirming the importance of good, positive education about the programme and the need to provide support for RNs working on portfolios. The study also reported that RNs would be happier about using their own time for PDRP if the organisation supplied some paid time as well. Findings ways to balance the need for

RNs to stay up-to-date with their knowledge and skills without too many financial or time pressures may help reduce ITL and be crucial for encouraging RNs to return to the profession.

11.12.10 Improve the image of nursing

The qualitative data showed that some interview participants felt that the image of nursing as a lesser profession continues to contribute to ITL, however the quantitative data did not support this. This suggests that the concern about nursing's image might be over-stated when a full set of factors leading to ITL is analysed. The results suggest that negative societal perceptions of nursing such as gendered stereotyping, subordination to doctors and low academic standards are improving. It remains important to promote the profile of nursing as a knowledgeable and skilful profession. One way to do this is to provide platforms for RNs to communicate both their professionalism and their contribution to the healthcare system to the public (Hoeve et al., 2014).

11.13 Future research

Due to time limitations, this study has a cross-sectional design which looks at a group of participants in one moment in time. Therefore, results may not provide definitive information about cause-and-effect relationships over time. It is recommended that future research employ a longitudinal approach that follows up RNs who have identified ITL at a later date to explore whether their intentions lead to actual turnover behaviour and the reasons behind this.

This study has produced a substantial data set regarding RNs and their thoughts regarding work. This provides a unique opportunity for additional in-depth analysis of the data, including subgroup analysis. For example, it is recommended that further investigation be conducted into the differences in ITL between participant subsets, such as age, ethnic groups or RNs from different work settings (e.g. hospital versus primary healthcare). The data could be used to investigate whether nurse practitioners exhibit lower ITL, thereby exploring whether greater levels of autonomy do result in lower ITL in RNs. These types of analyses on the data set would enable the development of initiatives that are tailored towards the specific needs of those groups.

Appendices

Appendix 1: Ethics clearance

Appendix 2: Interview schedule

Appendix 3: Final survey questionnaire

Appendix 4: Internal consistency of measurement scales

Appendix 5: Descriptive graphs

Appendix 1: Ethics clearance

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Office of the Vice-Chancellor
Research Integrity Unit

The University of Auckland
Private Bag 92019
Auckland, New Zealand
Level 10, 49 Symonds Street
Telephone: 64 9 373 7599
Extension: 87030 / 83761
Facsimile: 64 9 373 7432

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE

15-Jul-2013

MEMORANDUM TO:

Prof Matthew Parsons
Nursing

Re: Application for Ethics Approval (Our Ref. 9447)

The Committee considered your application for ethics approval for your project entitled **Retaining Nurses in the Profession**.

Ethics approval was given for a period of three years with the following comment(s):

1. Please note that if just one of the focus group participants disagrees to be audio-recorded, audio-recording of the focus group is no longer a possibility. The committee suggests that you consider removing the option of turning off the recording in the focus group.

The expiry date for this approval is 15-Jul-2016.

If the project changes significantly you are required to resubmit a new application to UAHPEC for further consideration.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC ethics administrators at humanethics@auckland.ac.nz in the first instance.

All communication with the UAHPEC regarding this application should include this reference number: **9447**.

(This is a computer generated letter. No signature required.)

Secretary
University of Auckland Human Participants Ethics Committee

c.c. Head of Department / School, Nursing
Miss Willoughby Moloney
Prof Peter Boxall
Dr Rosemary Frey

Additional information:

1. Should you need to make any changes to the project, write to the Committee giving full details including revised documentation.

file:///Users/willoughbymoloney/Downloads/Outcome%20Approved%20with%20comment.htm

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2. Should you require an extension, write to the Committee before the expiry date giving full details along with revised documentation. An extension can be granted for up to three years, after which time you must make a new application.
3. At the end of three years, or if the project is completed before the expiry, you are requested to advise the Committee of its completion.
4. Do not forget to fill in the 'approval wording' on the Participant Information Sheets and Consent Forms, giving the dates of approval and the reference number, before you send them out to your participants.
5. Send a copy of this approval letter to the Manager - Funding Processes, Research Office if you have obtained funding other than from UniServices. For UniServices contract, send a copy of the approval letter to: Contract Manager, UniServices.
6. Please note that the Committee may from time to time conduct audits of approved projects to ensure that the research has been carried out according to the approval that was given.

Appendix 2: Interview schedule

Questions	Prompts
1. What do you think it means to be a nurse?	<ul style="list-style-type: none"> • What are the core values, beliefs, skills, knowledge? • How would you describe what nursing is to someone who is thinking of becoming a nurse?
2. What do you think motivates nurses to work in nursing?	<ul style="list-style-type: none"> • Caring • Flexibility • Family tradition • Pay
3. What do you think are the biggest challenges nurses face in their day-to-day professional work setting?	<ul style="list-style-type: none"> • Physical workload • Schedule (shift work, long hours) • Role stress (emotional) • Safety (bullying, sexual/physical abuse)
4. What do you think are the biggest challenges nurses have in their personal/home lives that might affect how they work?	<ul style="list-style-type: none"> • Family commitments • Disability • Work-life balance
5. What can nurses draw on to support them in their nursing? What could the organisation do better to help nurses through the challenges?	<ul style="list-style-type: none"> • Distributive justice (pay, promotion) • Access to power (autonomy, shared decision-making) • Perceived organisational support • Supervisor support • Professional development • Relationships with colleagues
6. Do you think that nurses of different ages and generations have different needs within nursing? Do these affect their level of commitment to the nursing profession?	<ul style="list-style-type: none"> • Age, gender, education, years in position, years in profession, marital status, FTE • Self-concept • Retirement • Family
7. Could nursing work be restructured to better suit nurses at different life stages?	<ul style="list-style-type: none"> • Work-life balance • Younger nurses with children • Older nurses nearing retirement • Shift work, different roles

<p>8. Do you think the current global financial crisis has affected the way nurses choose to work?</p>	<ul style="list-style-type: none"> ● Perception of labour market, opportunity elsewhere ● Preferred retirement age ● Contribution to household income
<p>9. Nurse – have you changed your working hours at all over the last five years and if so, why?</p>	<ul style="list-style-type: none"> ● Recession ● Health ● Family
<p>10. What do you think are the main reasons nurses choose to leave the profession?</p>	<ul style="list-style-type: none"> ● What is happening in those moments when you think ‘I’ve had enough, I want to get out of here?’
<p>11. Nurse: What could be done to ensure that you’re future nursing career is effective and satisfying? Manager: If you could change anything to improve the retention of nurses, what would it be?</p>	
<p>12. It is predicted we will have a nursing shortage in the coming years. What information is needed to improve recruitment and retention and help stabilise the workforce?</p>	

Appendix 3: Final survey questionnaire

Introduction

The survey should take about 20 minutes of your time. Your answers are 100% anonymous. Please answer all questions that apply to you.

By completing this survey you will be contributing towards improving conditions for Registered Nurses in New Zealand. Plus you will go into the draw to win a prize of shopping vouchers of your choosing! First prize will win a value of \$500, with an additional two prizes of \$250 each.

Section One

First, we'd like to know something about your work patterns.

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
In the last five years, I returned to the nursing profession after a period of absence because I needed the money.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the last five years, I increased my hours of work as a Registered Nurse because I needed the money.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the last five years, my partner/other financial contributor had a reduction in income. (If you are the only financial contributor to your household, please select Strongly Disagree)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The income of my spouse/other financial contributor is likely to increase in the coming years. (If you are the only financial contributor to your household, please select Strongly Disagree)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my financial situation improves, I will probably reduce the number of hours I work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my financial situation improves, I will probably stop working altogether.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I search for an alternative job within the next year, I am confident that I will find an acceptable job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the next five years I am likely to leave New Zealand to work overseas for an extended period of time.

- Yes
- No
- Unsure

If I do go overseas, I am likely to return to New Zealand to work as a Registered Nurse.

- Yes
- No
- Unsure

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
I want to switch to another nursing job as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am considering changing my nursing job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am keeping my eyes open for another job opportunity in nursing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to leave the nursing profession as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had it to do over again, I would still go into nursing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I plan to continue in nursing for the rest of my working life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For the following question, define career as a line of work that you plan to pursue for many years.

	To No Extent	To A Little Extent	To Some Extent	To A Great Extent	To A Very Great Extent
Compared to other people generally, to what extent do you view your job as a career?	<input type="radio"/>				

Many Registered Nurses take long career breaks for personal reasons, such as to have children. Please indicate your perception of how difficult it is to return to the profession after a break.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
It is hard to return to nursing if the period of absence is between 1 to 5 years.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is hard to return to nursing if the period of absence is more than 5 years.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section Two

Next, we'd like more information about how you feel about your work. If you are not currently working, please relate the questions to your most recent job as a Registered Nurse.

I believe that society has a good image of Registered Nurses.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On a scale of 1 to 10, how satisfied do you feel with your job as a whole, where 1 is very unsatisfied and 10 is very satisfied?

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>									

Please indicate the extent to which pressure and urgency affect your work environment.

	Never	Hardly Ever	Sometimes	Almost Always	Always
How often do you lack time to complete all your work tasks?	<input type="radio"/>				
Can you pause in your work whenever you want?	<input type="radio"/>				
How often do you have to work very fast?	<input type="radio"/>				
Is your workload unevenly distributed so that things pile up?	<input type="radio"/>				
Do you have enough time to talk to patients?	<input type="radio"/>				

When you think about your work overall, how often do you feel the following?

	Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
Tired	<input type="radio"/>						
Disappointed with people	<input type="radio"/>						
Hopeless	<input type="radio"/>						
Trapped	<input type="radio"/>						
Helpless	<input type="radio"/>						
Depressed	<input type="radio"/>						
Physically weak/Sickly	<input type="radio"/>						
Worthless/Like a failure	<input type="radio"/>						
Difficulties sleeping	<input type="radio"/>						
"I've had it"	<input type="radio"/>						

This is about the emotional demands of your work.

	Never	Hardly Ever	Sometimes	Almost Always	Always
How often are you confronted with death in your work?	<input type="radio"/>				
How often are you confronted with illness or other human suffering in your work?	<input type="radio"/>				
How often are you confronted with aggressive patients in your work?	<input type="radio"/>				
How often are you confronted with troublesome patients in your work?	<input type="radio"/>				

Please indicate how often you experience the following. (Remember, if you are not currently working as a Registered Nurse, you are answering the questions in this survey about your most recent job as a Registered Nurse).

	Never	Almost Never	Rarely	Sometimes	Often	Very often	Always
At my job, I feel bursting with energy.	<input type="radio"/>						
At my job, I feel strong and vigorous.	<input type="radio"/>						
I am enthusiastic about my job.	<input type="radio"/>						
My job inspires me.	<input type="radio"/>						
When I get up in the morning, I feel like going to work.	<input type="radio"/>						
I feel happy when I am working intensely.	<input type="radio"/>						
I am proud of the work that I do.	<input type="radio"/>						
I am immersed in my work.	<input type="radio"/>						
I get carried away when I am working.	<input type="radio"/>						

Please evaluate the following statements.

	Never	Seldom	Sometimes	Often	Very Often
After work, I come home too tired to do some of the things I'd like to do.	<input type="radio"/>				
On the job, I have so much work to do that it takes away from my personal interests.	<input type="radio"/>				
My family or friends dislike how often I am preoccupied with my work while I am at home.	<input type="radio"/>				
My work takes up time that I'd like to spend with my family or friends.	<input type="radio"/>				
My job interferes with my responsibilities at home, such as gardening, cooking, cleaning, home maintenance, or child care.	<input type="radio"/>				
My job keeps me from spending the amount of time I would like to spend with my family or friends.	<input type="radio"/>				

You're now over half-way through the survey!

We'd like to know about your relationship with your immediate supervisor (consider as your immediate supervisor the person who assesses your job performance, e.g. Charge Nurse).

	Never	Hardly Ever	Sometimes	Quite Often	Always
How often does your immediate supervisor appreciate the value of your work and its results?	<input type="radio"/>				
How often does your immediate supervisor express a positive opinion on your work?	<input type="radio"/>				
How often does your immediate supervisor give you supportive advice?	<input type="radio"/>				
In general, is your immediate supervisor ready to help you with the performance of your tasks?	<input type="radio"/>				

Please tell us about your relationships with colleagues (those people you have the most contact with, such as other Registered Nurses, doctors, and allied health colleagues).

	Never	Hardly Ever	Sometimes	Quite Often	Always
How often do your colleagues appreciate the value of your work and its results?	<input type="radio"/>				
How often do your colleagues express a positive opinion on your work?	<input type="radio"/>				
How often do your colleagues give you supportive advice?	<input type="radio"/>				
In general, are your colleagues ready to help you with the performance of your tasks?	<input type="radio"/>				

Tell us about your perception of senior management (consider senior management as those people who make decisions regarding the overall direction and strategy of your organisation).

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
Senior management really cares about my well-being.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Senior management cares about my general satisfaction at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Senior management shows very little concern for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if you have access to the following employment practices at your current or most recent place of employment.

	Yes	No	I don't know
The ability to take time off work when necessary for caregiving (e.g. of children, elderly or other dependants).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible start-and-finish times for employees who need them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to work from home for employees who need it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Permanent part-time work for people who cannot work full-time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extra parental leave provisions above the legal minimum requirements (e.g. extra time off for mothers and fathers who have recently had a child).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please evaluate the following statements.

	Never	Hardly Ever	Sometimes	Almost Always	Always
I feel like my workplace provides a secure environment.	<input type="radio"/>				
I feel safe from personal harm (physical, emotional, or verbal) at work.	<input type="radio"/>				

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
I am able to take time off for training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to keep up with developments to do with my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considering all my efforts and achievements, my work prospects are good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my pay in relation to my need for income.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my pay considering the pay of other comparable professions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my pay considering the pay of nurses in other organisations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my pay considering the pay of other nurses in my organisation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with these statements?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
My job gives me a chance to use my personal initiative or judgment in carrying out the work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job allows me to make a lot of decisions on my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job provides me with significant autonomy in making decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My employer's values align very closely with my personal values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those above me in the organisation put quality of care of the patient first.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organisation and I agree on patient care.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree
I feel confident analysing a long-term problem to find a solution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in representing my work area in meetings with management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident contributing to discussions about the organisation's strategy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident helping to set targets/goals in my work area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident contacting people outside my work area (e.g. other health professionals, patient family members) to discuss problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident presenting information to a group of colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section Three

Almost done! To finish up, it's important we know just a little bit more about you.

Please let us know your email address as this will enable us to contact the lucky winners of the prize draw!

What year were you born? (e.g. 1962)

What is your gender?

Female

Male

With which ethnic group do you most identify with?

NZ European

Tongan

Chinese

Other European

Fijian

Indian

NZ Maori

Fijian Indian

Other

Samoan

Other Pacific

Cook Islands

Filipino

How many dependent children do you have living with you? (If none, please enter the number 0)

Dependent children

How many dependent adults with care needs do you have living with you? (If none, please enter the number 0)

Please enter a number between 1 and 100 to represent the approximate percentage you currently contribute to your total household income. (e.g. 50)

Please select your highest level of education?

How do you rate your health compared with colleagues of your age?

Much Worse	Slightly Worse	About The Same	Slightly Better	Much Better
<input type="radio"/>				

Did you first register as a Registered Nurse in New Zealand?

Yes

No

What is your current employment situation?

What is your current or most recent DHB area of employment?

What is your current or most recent main employment setting?

What is your current or most recent main area of practice?

What is your current or most recent job title?

How many hours do you usually work each week in your current or most recent role?

If you usually work less than 30 hours each week, please select the option that best describes the reason for this?

How long have you been working in your current or most recent role?

Years

Months

Finished! Thank you so much for taking the time to complete this survey.

Would you be happy to participate in a follow-up survey in a year or so?

Yes

No thanks

Appendix 4: Internal consistency of measurement scales

Construct	Dimensions	Question number	Question description	Chronbach's alpha
Intention to leave	Intention to leave the organisation	Q4A	I want to switch to another nursing job as soon as possible.	.91
		Q4B	I am considering changing my nursing job.	
		Q4C	I am keeping my eyes open for another job opportunity in nursing.	
	Intention to leave the profession	Q4D	I want to leave the nursing profession as soon as possible.	.76
		Q4E	If I had it to do over again, I would still go into nursing. (R)	
		Q4F	I plan to continue in nursing for the rest of my working life. (R)	
Quantitative demand scale		Q11A	How often do you lack time to complete all your work tasks?	.77
		Q11B	Can you pause in your work whenever you want? (R)	
		Q11C	How often do you have to work very fast?	
		Q11D	Is your workload unevenly distributed so that things pile up?	
		Q11E	Do you have enough time to talk to patients? (R)	
Burnout scale	Physical exhaustion	Q12A	Tired	.74
		Q12G	Physically weak/Sickly	
		Q12I	Difficulties sleeping	
	Emotional exhaustion	Q12B	Disappointed with people	.78
		Q12D	Trapped	
		Q12H	Worthless/Like a failure	
	Depression	Q12C	Hopeless	.90
		Q12E	Helpless	
		Q12F	Depressed	
		Q12J	"I've had it"	
Emotional demands scale		Q13C	How often are you confronted with death in your work?	.73
		Q13D	How often are you confronted with illness or other human suffering in your work?	
		Q13E	How often are you confronted with aggressive patients in your work?	
		Q13F	How often are you confronted with troublesome patients in your work?	
Work engagement scale		Q14A	At my job, I feel bursting with energy.	.91
		Q14B	At my job, I feel strong and vigorous.	
		Q14C	I am enthusiastic about my job.	
		Q14D	My job inspires me.	
		Q14E	When I get up in the morning, I feel like going to work.	
		Q14F	I feel happy when I am working intensely.	
		Q14G	I am proud of the work that I do.	
		Q14H	I am immersed in my work.	

	Q14I	I get carried away when I am working.	
Work-life interference scale	Q15A	After work, I come home too tired to do some of the things I'd like to do.	.91
	Q15B	On the job, I have so much work to do that it takes away from my personal interests.	
	Q15C	My family or friends dislike how often I am preoccupied with my work while I am at home.	
	Q15D	My work takes up time that I'd like to spend with my family or friends.	
	Q15E	My job interferes with my responsibilities at home, such as gardening, cooking, cleaning, home maintenance, or child care.	
	Q15F	My job keeps me from spending the amount of time I would like to spend with my family or friends.	
Supervisor support	Q16A	How often does your immediate supervisor appreciate the value of your work and its results?	.92
	Q16B	How often does your immediate supervisor express a positive opinion on your work?	
	Q16C	How often does your immediate supervisor give you supportive advice?	
	Q16D	In general, is your immediate supervisor ready to help you with the performance of your tasks?	
Colleague support	Q17A	How often do your colleagues appreciate the value of your work and its results?	.87
	Q17B	How often do your colleagues express a positive opinion on your work?	
	Q17C	How often do your colleagues give you supportive advice?	
	Q17D	In general, are your colleagues ready to help you with the performance of your tasks?	
Organisational support	Q18A	Senior management really cares about my well-being.	.85
	Q18B	Senior management cares about my general satisfaction at work.	
	Q18C	Senior management shows very little concern for me. (R)	
Personal harm	Q20A	I feel like my workplace provides a secure environment.	.83
	Q20B	I feel safe from personal harm (physical, emotional, or verbal) at work.	
Professional development	Q21A	I am able to take time off for training.	.84
	Q21B	I am able to keep up with developments to do with my job.	
Reward	Q21D	Considering all my efforts and achievements, my work prospects are good.	.85
	Q21F	Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.	
	Q21G	I am satisfied with my pay in relation to my need for income.	
	Q21H	I am satisfied with my pay considering the pay of other comparable professions.	
	Q21I	I am satisfied with my pay considering the pay of nurses in other organisations.	
	Q21J	I am satisfied with my pay considering the pay of other nurses in my organisation.	
Autonomy	Q22A	My job gives me a chance to use my personal initiative or judgment in carrying out the work.	.93
	Q22B	My job allows me to make a lot of decisions on my own.	
	Q22C	My job provides me with significant autonomy in making decisions.	
Value congruence	Q22D	My employer's values align very closely with my personal values.	.88
	Q22E	Those above me in the organisation put quality of care of the patient first.	
	Q22F	My organisation and I agree on patient care.	
Psychological capital	Q22A	I feel confident analysing a long-term problem to find a solution.	.89

Q24B	I feel confident in representing my work area in meetings with management.
Q24C	I feel confident contributing to discussions about the organisation's strategy.
Q24D	I feel confident helping to set targets/goals in my work area.
Q24E	I feel confident contacting people outside my work area (e.g. other health professionals, patient family members) to discuss problems.
Q24F	I feel confident presenting information to a group of colleagues.

Appendix 5: Descriptive graphs

Registered nurses (RNs) were asked to rate seven statements related to how their current working patterns and their future working intentions have changed in the context of the global economic recession (Figure 1).

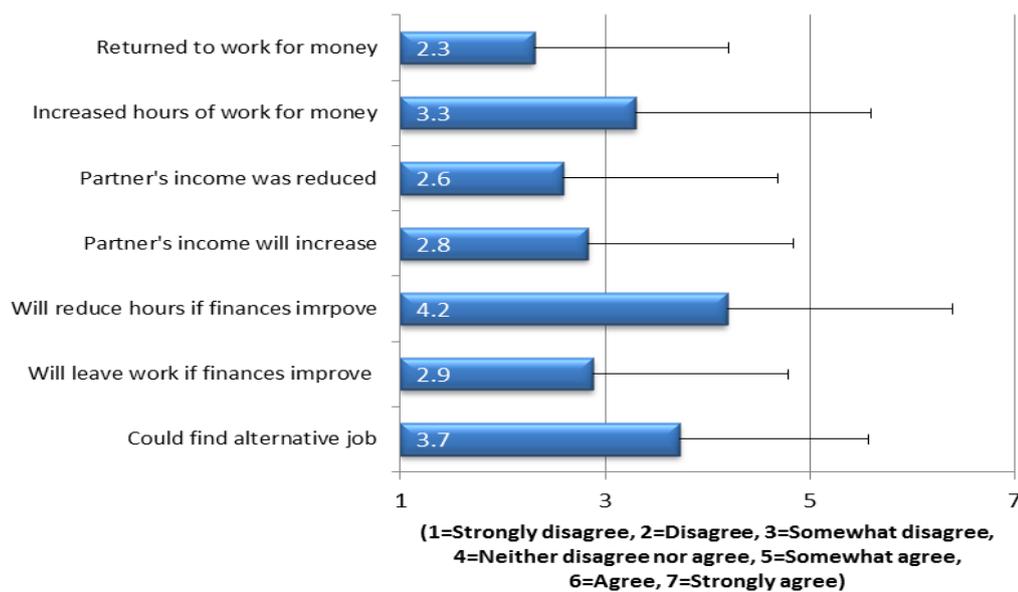


Figure 1: Effects of the recession (error bars = 1SD)

Items were scored on a seven-point rating scale ranging from 1=Strongly disagree to 7=Strongly agree. A total of 2876 usable responses were collected. Results show that over 14% ($M=2.3$, $SD=1.87$) of RNs agreed that they returned to the nursing profession in the last five years because they needed the money. More than 35% ($M=3.3$, $SD=2.29$) of RNs increased their hours of work due to financial need. Approximately 21% ($M=2.59$, $SD=2.11$) reported that their partner had a reduction in income in the last five years and over 24% ($M=2.83$, $SD=2.02$) think their partner is likely to have an increase in their income over the coming years. Indeed, over 50% ($M=4.19$, $SD=2.15$) of RNs say they will likely leave the profession entirely if their financial situation improves, while more than 20% ($M=2.88$, $SD=1.94$) are likely to reduce their hours. To measure RN confidence in labour market opportunities, participants were asked how confident they are that they could find an acceptable alternative job within the next year. Over 35% ($M=3.73$, $SD=1.85$) felt they would be able to find an alternative job.

Participants were asked whether they were likely to leave New Zealand in the next five years to work overseas for an extended period of time and if so, whether they intended on returning again to work as an RN (Figures 2 and 3).

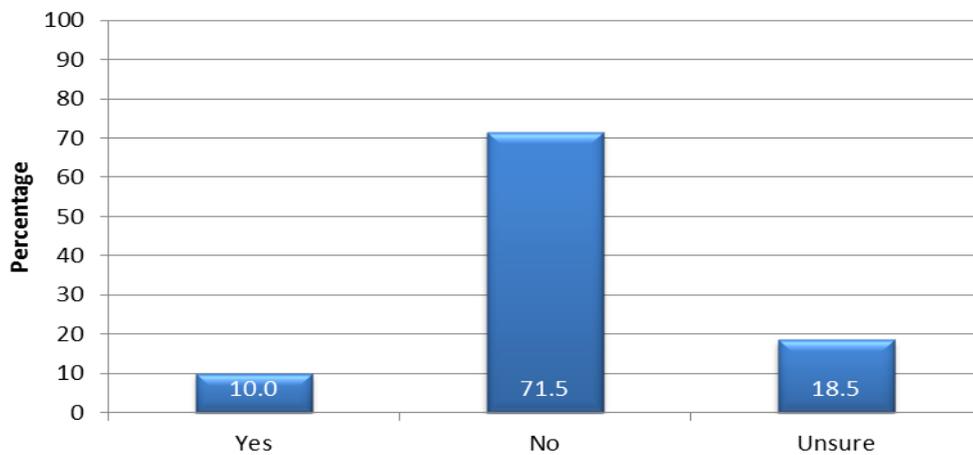


Figure 2: Likely to leave NZ to work (error bars = 1SD)

Only 10% ($M=2.1$, $SD=0.5$) said they were intending on leaving, while 8.5% were unsure.

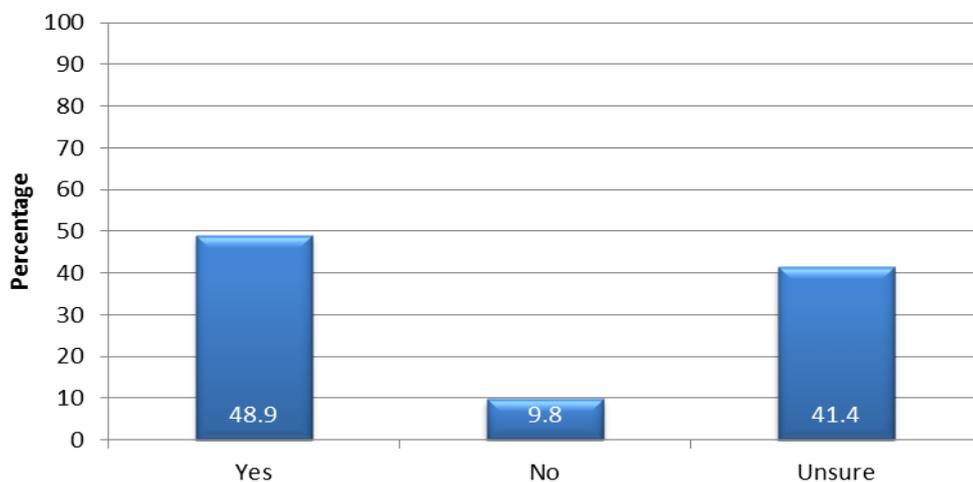


Figure 3: Likely to return to NZ to work (error bars = 1SD)

Almost 50% ($M=1.9$, $SD=0.9$) of RNs were likely to return to New Zealand if they did leave, while approximately 40% were unsure.

Participants were asked to rate three statements regarding their intentions to leave their current job but stay within nursing (intention to leave the organisation) (ITLO) and three statements regarding their intentions to leave the nursing profession entirely (intention to leave the profession) (ITLP) (Figure 4).

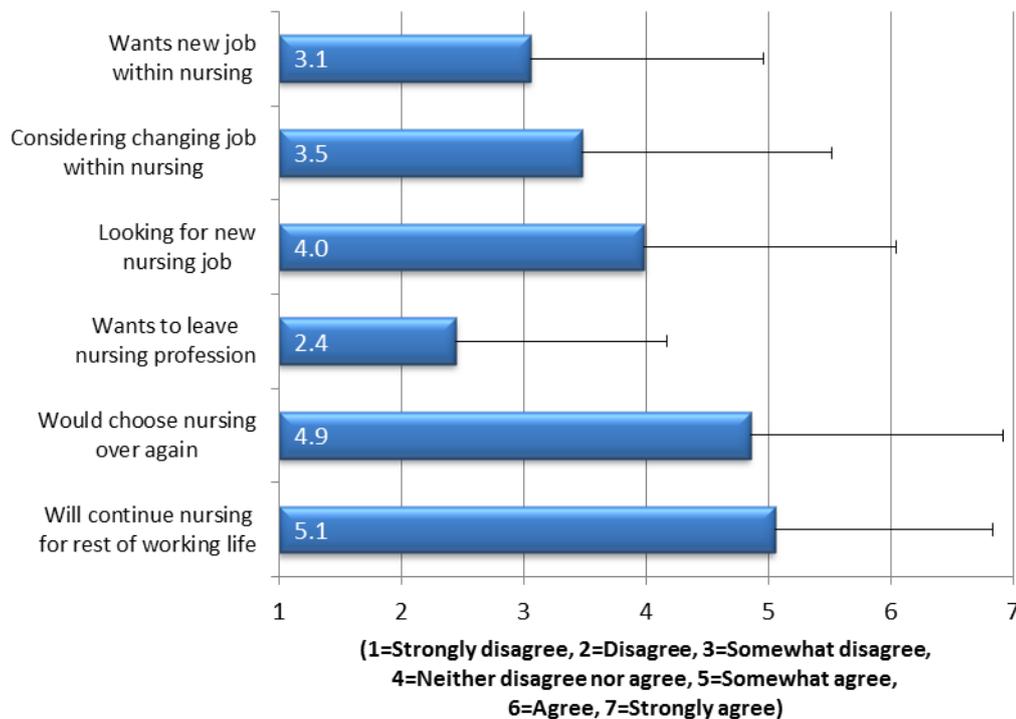


Figure 4: Intention to leave (error bars = 1SD)

Items were scored on a seven-point rating scale ranging from 1=Strongly disagree to 7=Strongly agree. A total of 2876 responses were collected. Results showed that in terms of wanting to leave the organisation, over 27% ($M=3.06$, $SD=1.91$) of RNs would like to switch to another nursing job as soon as possible, almost 40% ($M=3.45$, $SD=2.04$) are considering changing their nursing job and over 50% ($M=3.99$, $SD=2.06$) are looking for alternative opportunities within nursing. Analysis of ITLP showed that 15% ($M=2.45$, $SD=1.72$) of RNs want to leave the nursing profession as soon as possible, while approximately 62% ($M=4.85$, $SD=2.06$) would still go into nursing if they could do their time again and over 66% ($M=5.06$, $SD=1.78$) plan to continue working in nursing for the rest of their working life.

Participants were asked to rate the extent to which they view their jobs as a career (Figure 5). They were asked to define career as a line of work that you plan to pursue for many years.

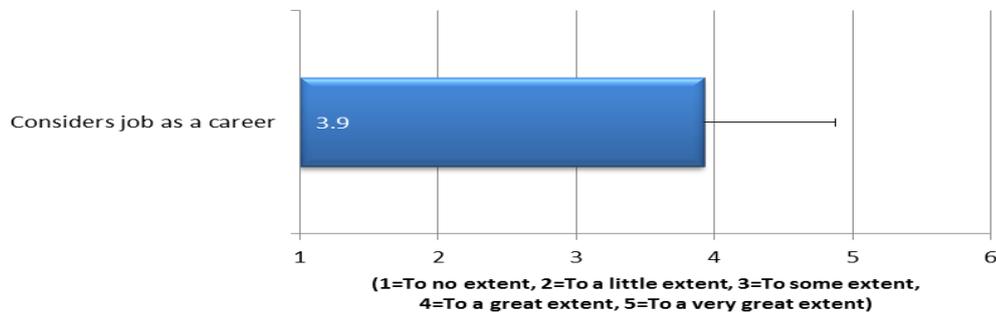


Figure 5: Career orientation (error bars = 1SD)

Items were scored on a five-point rating scale ranging from 1=To no extent to 5=To a very great extent. A total of 2876 responses were collected and only 1.7% of RNs said they did not consider their job as a long-term career (M=3.9, SD=1.0). Approximately 27% felt a little or to some extent that their job is a career, while over 70% felt to a great or very great extent that nursing is a career.

Participants were reminded that many RNs take long career breaks for personal reasons and were asked to rate their perception of how difficult it is to return to the nursing profession after a break of one to five years and a break of more than five years (Figure 6).

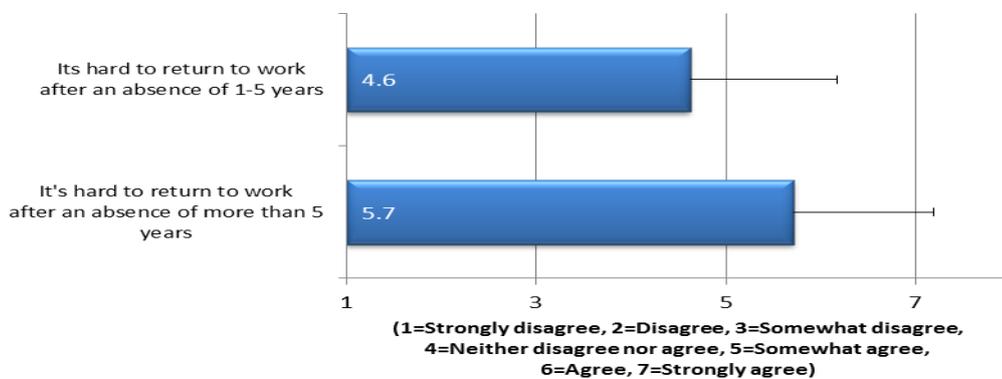


Figure 6: Returning to work (error bars = 1SD)

Items were scored on a seven-point rating scale ranging from 1=Strongly disagree to 7=Strongly agree. A total of 2876 responses were collected. Almost 60% (M=4.6, SD=1.6) of RNs felt it is hard to return to work after an absence of between one to five years and over 80% (M=5.7, SD=1.5) thought it is hard to return after an absence of more than five years.

Participants were asked to rate whether they believe that society has a good image of RNs (Figure 7).

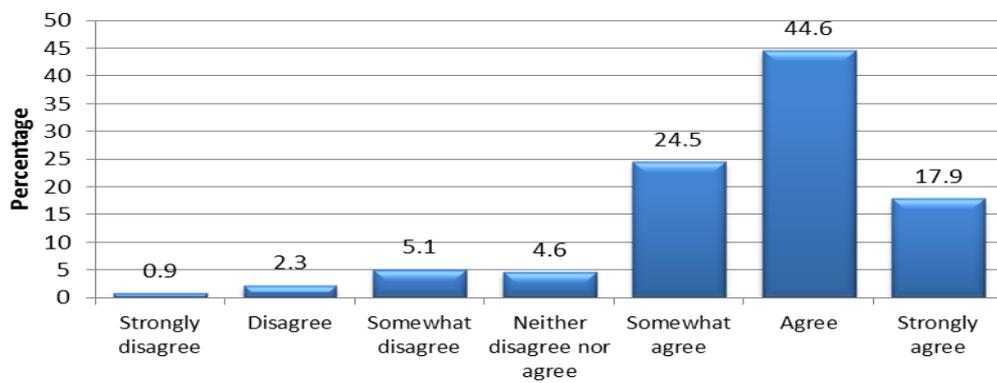


Figure 7: Image of nursing

A seven-point rating scale was used ranging from 1=Strongly disagree to 7=Strongly agree. A total of 2783 responses were collected. Of those responses, 87% (M=5.6, SD=1.2) believed that society does hold a good image of RNs.

Participants were asked to rate how satisfied they feel with their job as a whole on a scale of 1 to 10, where 1 is very unsatisfied and 10 is very satisfied (Figure 8).

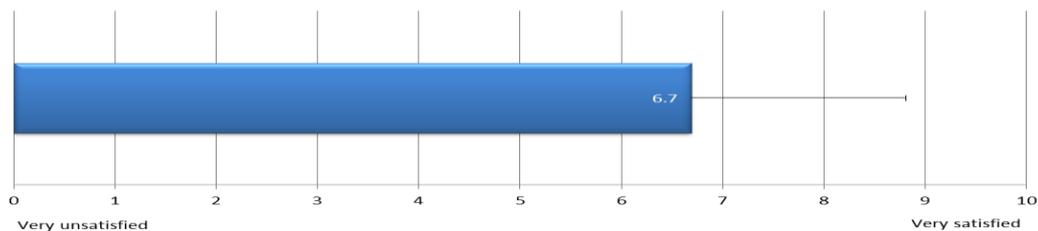


Figure 8: Job satisfaction (error bar = 1SD)

A total of 2783 responses were collected. The mean result was 6.7, with a SD of 2.1.

To measure the quantitative demands of their work, RNs were asked to rate five statements that make up the quantitative demands scale (Figure 9).

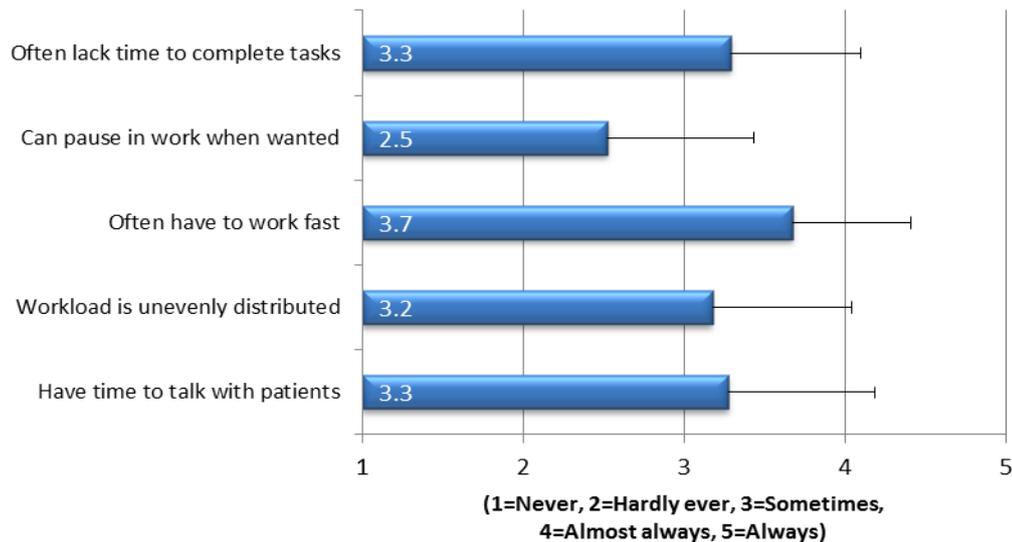


Figure 9: Quantitative demands (error bars = 1SD)

A five-point rating scale was used ranging from 1=Never to 5=Always. A total of 2783 responses were collected. Over 50% ($M=3.3$, $SD=0.8$) reported that they sometimes lack time to complete all their work tasks and over 36% said they almost always or always lack the time. Almost 50% ($M=2.5$, $SD=0.9$) of respondents were not able to pause in their work when they wanted to and nearly 60% ($M=3.7$, $SD=0.7$) had to work really fast always or almost always. Approximately 50% ($M=3.2$, $SD=0.9$) of RNs said that their workload is sometimes unevenly distributed so that things pile up, while nearly 30% said that this is always or almost always the case. When asked if they had enough time to talk with patients, 18% of RNs reported they either never did or hardly ever did.

To measure burnout, participants were asked to rate how often they feel ten burnout emotions (Figure 10).

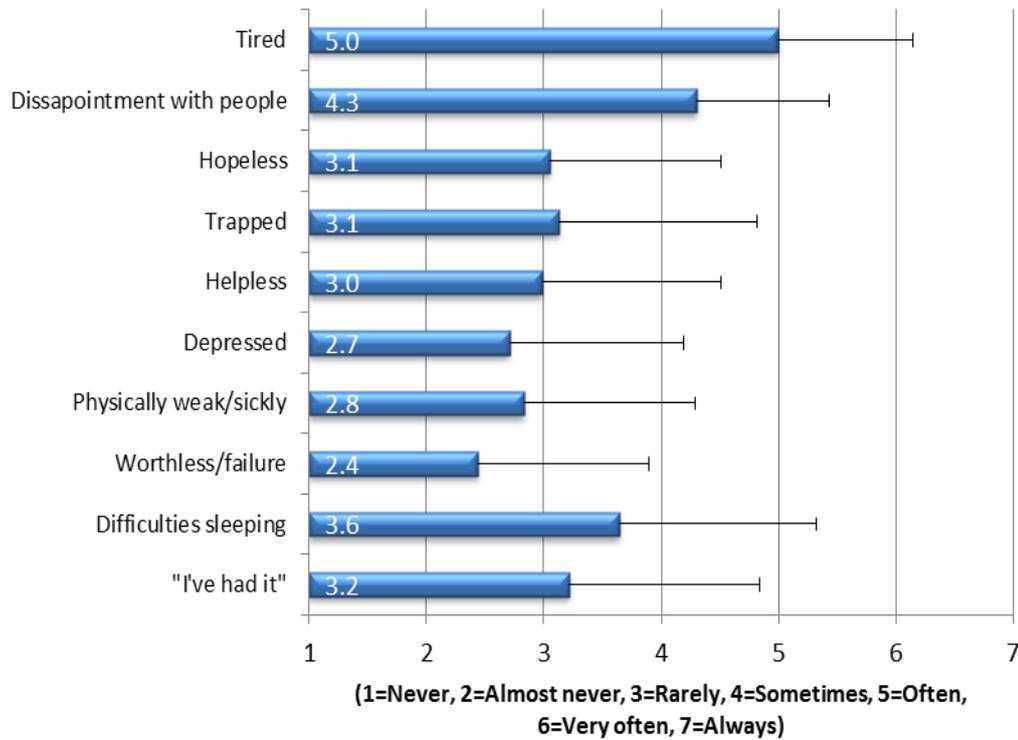


Figure 10: Burnout (error bars = 1SD)

A seven-point rating scale was used ranging from 1=Never to 7=Always. A total of 2783 responses were collected. Approximately 60% (M=5.0, SD=1.1) of RNs reported feeling tired often, very often or always. Over 37% (M=4.3, SD=1.2) were often, very often or always dissapointed with people. In terms of feeling hopeless, nearly 25% (M=3.1, SD=1.5) said they sometimes did, while over 13% said they often, very often or always did. Over 40% (M=3.1, SD=1.7) of respondents reported some levels of feeling trapped, while approximately 35% (M=3.0, SD=1.5) said they felt some degree of helplessness. Over 30% (M=2.7, SD=1.5) felt some level of depression, nearly 34% (M=2.8, SD=1.5) some degree of feeling physically weak or sick and almost 24% (M=2.4, SD=1.5) had some feelings of being worthless or a failure. Almost 60% (M=3.7, SD=1.7) of RNs had difficulties sleeping and nearly 50% (M=3.2, SD=1.6) had at some point felt like they had had enough.

To measure the emotional demands of their work, RNs were asked to rate how often they were faced with death, illness and human suffering, aggressive patients and troublesome patients (Figure 11).

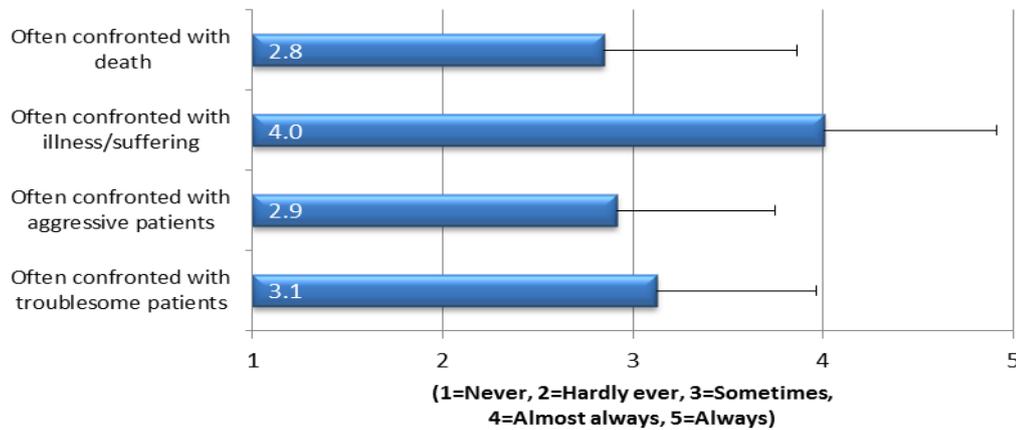


Figure 11: Emotional demands (error bars = 1SD)

A five-point rating scale was used ranging from 1=Never to 5=Always. A total of 2783 responses were collected. A total of 65% (M=2.6, SD=1.0) respondents said they had faced death in their work at some point, 95% (M=4.0, SD=0.9) were confronted with illness and suffering, over 70% (M=2.9, SD=0.8) dealt with aggressive patients and more than 80% (M=3.1, SD=0.8) worked with troublesome patients.

Participants were asked to rate nine statements relating to how engaged they are with their work (Figure 12).

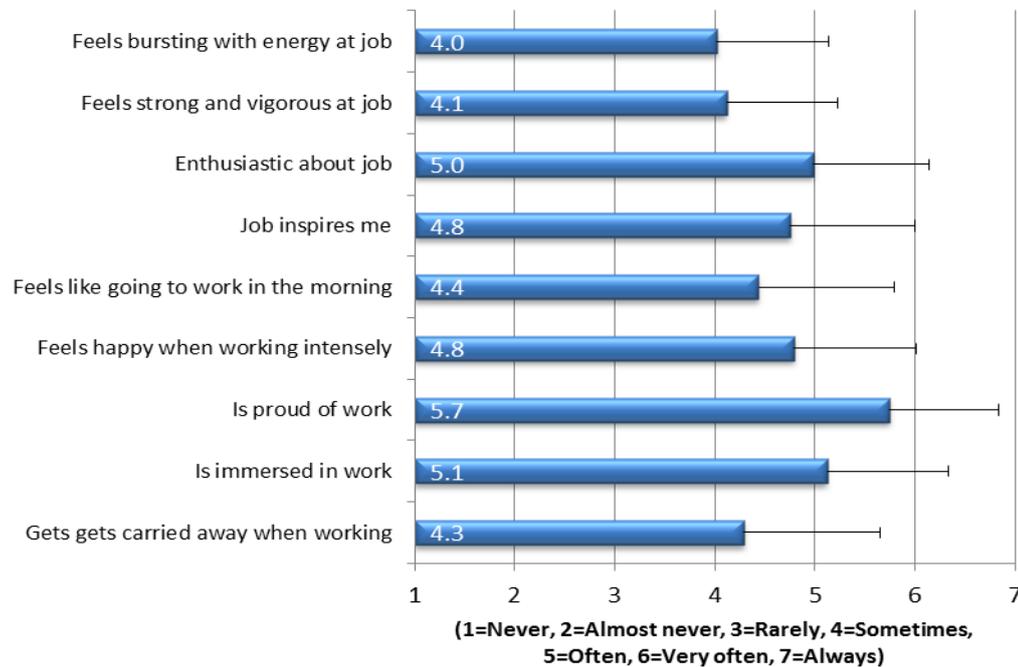


Figure 12: Work engagement (error bars = 1SD)

Answers were rated on a seven-point rating scale ranging from 1=Never to 7=Always. A total of 2783 responses were collected. Of those responses, approximately 27% (M=4.0, SD=1.1) rarely, almost never or never felt bursting with energy, almost 25% (M=4.1, SD=1.1) did not feel strong and vigourous and just over 7% (M=5.0, SD=1.2) were not enthusiastic about their job. Over 12% (M=4.8, SD=1.3) reported that their job rarely, almost never or never inspired them, 20% (M=4.4, SD=1.4) did not feel like going to work in the morning and over 10% (M=4.8, SD=1.2) did not feel happy when working intensely. Only 2% (M=5.8, SD=1.1) of RNs said they rarely, almost never or never felt proud of the work they do, just over 8% (M=5.1, SD=1.2) did not feel immersed in their work and approximately 25% (M=4.3, SD=1.4) did not get carried away while working.

Participants were asked to rate six statements to measure their level of work-life interference (Figure 13).

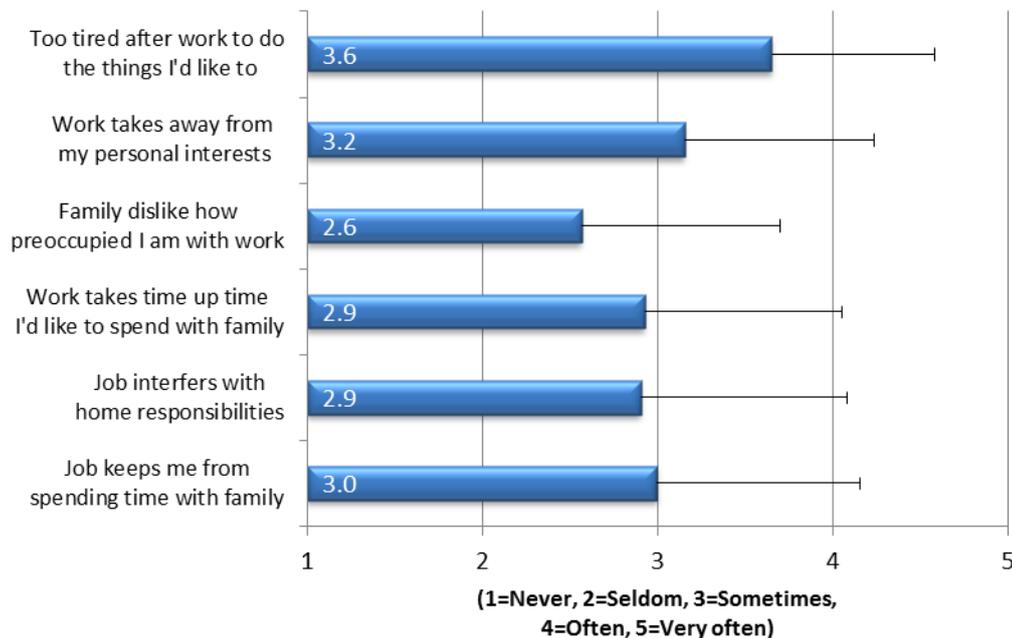


Figure 13: Work-life interference (error bars = 1SD)

Answers were rated on a five-point rating scale ranging from 1=Never to 5=Very often. A total of 2783 responses were collected. Over 50% (M=3.7, SD=0.9) of RNs reported that they often or very often felt too tired after work to do the things they would like to do, 37% (M=3.1, SD=1.1) felt their job often or very often takes away from their personal interests and almost 20% (M=2.6, SD=1.1) said their family or friends often or very often dislike how preoccupied they are with work. Almost 30% (M=2.9, SD=1.1) said that work often or very often takes up time that they would like to spend with family or friends, 30% (M=2.9, SD=1.2) that their job often or very often interferes with their responsibilities at home and over 32% (M=3.0, SD=1.2) that their job often or very often keeps them from spending the amount of time with their family or friends that they would like to.

Four statements measured participants' perception of the level of supervisor support that they receive (Figure 14).

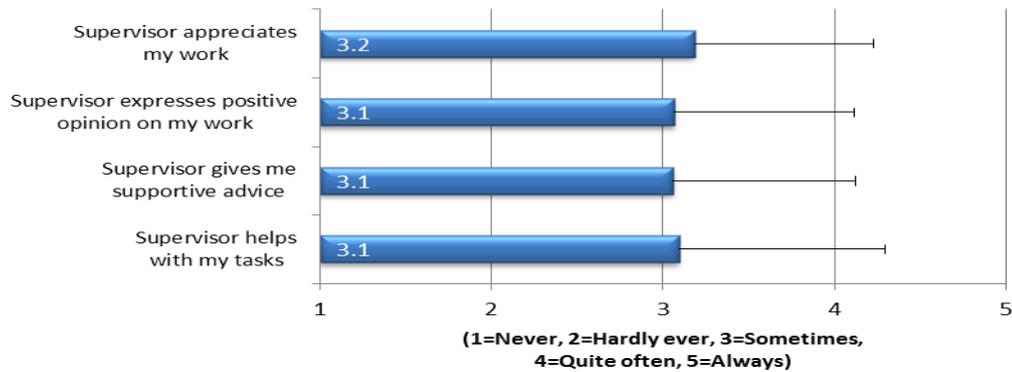


Figure 14: Supervisor support (error bars = 1SD)

Items were scored on a five-point rating scale ranging from 1=Never to 5=Always. A total of 2698 responses were collected. Approximately 26% (M=3.2, SD=1.0) of RNs said their supervisor never or hardly ever appreciated the value of their work, 30% (M=3.1, SD=1.0) of supervisors never or hardly ever expressed a positive opinion on their work, almost 30% (M=3.1, SD=1.1) never or hardly ever gave supportive advice and over 30% (M=3.1, SD=1.2) of supervisors were not ready to help with the performance of tasks.

The same four statements and rating scale were used in relation to levels of colleague support (Figure 15).

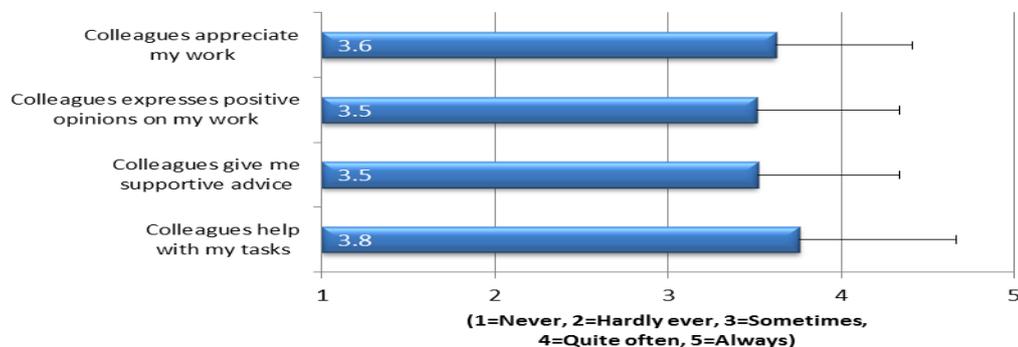


Figure 15: Colleague support (error bars = 1SD)

Only 7.6% (M=3.6, SD=0.8) of RNs felt that their colleagues never or hardly ever appreciated the value of their work, 11% (M=3.5, SD=0.8) said their colleagues never or hardly ever expressed a positive opinion on their work, just over 9% (M=3.5, SD=0.8) never or hardly ever gave supportive advice and only 8% (M=3.8, SD=0.9) of colleagues were not ready to help with the performance of tasks.

Organisational support was measured with three statements relating to RN perception of the support they receive from senior management (Figure 16).

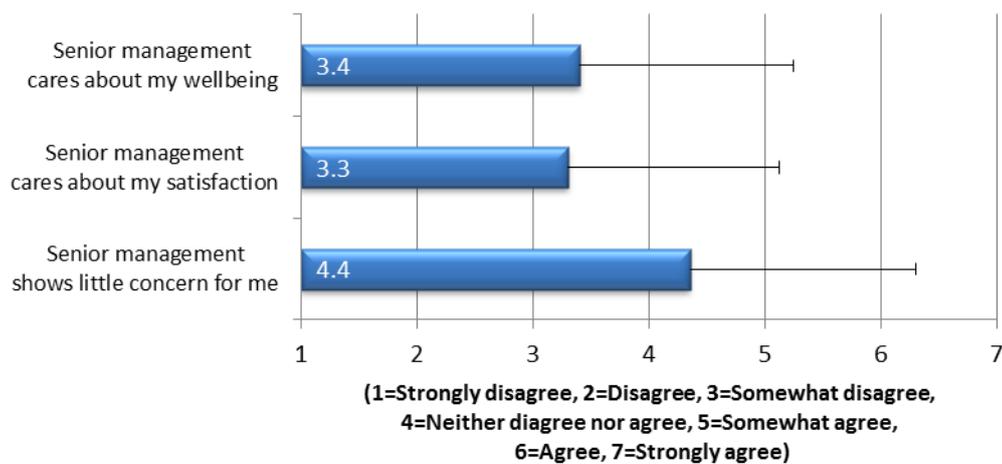


Figure 16: Organisational support (error bars = 1SD)

A seven-point rating scale was used with 1=Strongly disagree to 7=Strongly agree. A total of 2698 responses were collected. Over 50% (M=3.4, SD=1.8) of participants reported to some degree that senior management does not care about their wellbeing, approximately 55% (M=3.3, SD=1.8) that senior management does not care about their general satisfaction at work and almost 50% (M=4.4, SD=1.9) that senior management shows little concern for them.

Five statements assessed participants' access to family-friendly employment practices (Figure 17).

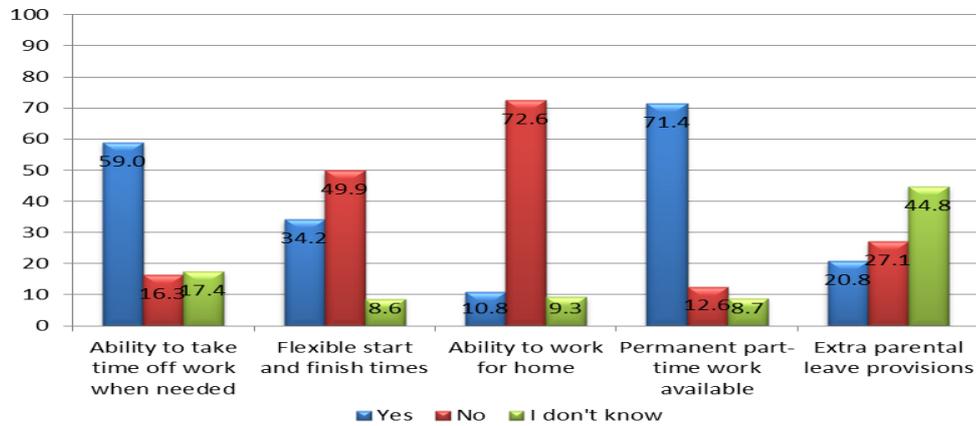


Figure 17: Family-friendly practices (error bars = 1SD)

Answers were 1=Yes, 2=No and 3=I don't know. Of the responses collected, approximately 16% of RNs reported being unable to take time off work when necessary for caregiving and almost 50% did not have access to flexible start-and-finish times. Only 10.8% were able to work from home if needed and given that the nature of nursing requires RNs to be present with patients, this is not surprising. Just over 12% of RNs did not have access to permanent part-time work and approximately 27% of employers did not provide extra parental leave provisions above the legal minimum requirements.

Participants were asked to evaluate two statements regarding how safe they feel at work (Figure 18).

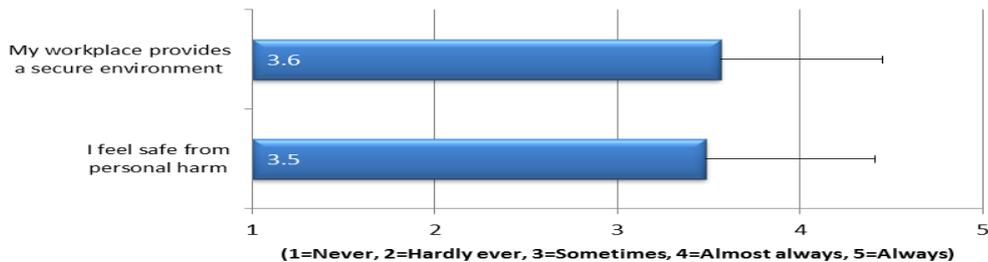


Figure 18: Personal harm (error bars = 1SD)

A five-point rating scale ranged from 1=Never to 5=Always and a total of 2698 responses were collected. Over 10% (M=3.6, SD=0.9) of RNs felt that their workplace never or hardly ever provided a secure environment and 30% said that they only sometimes do. Over 13% (M=3.5, SD=0.9) said they never or hardly ever felt safe from personal harm at work and over 30% said they only sometimes felt safe.

Two statements were put forward regarding participants' access to professional development (Figure 19).

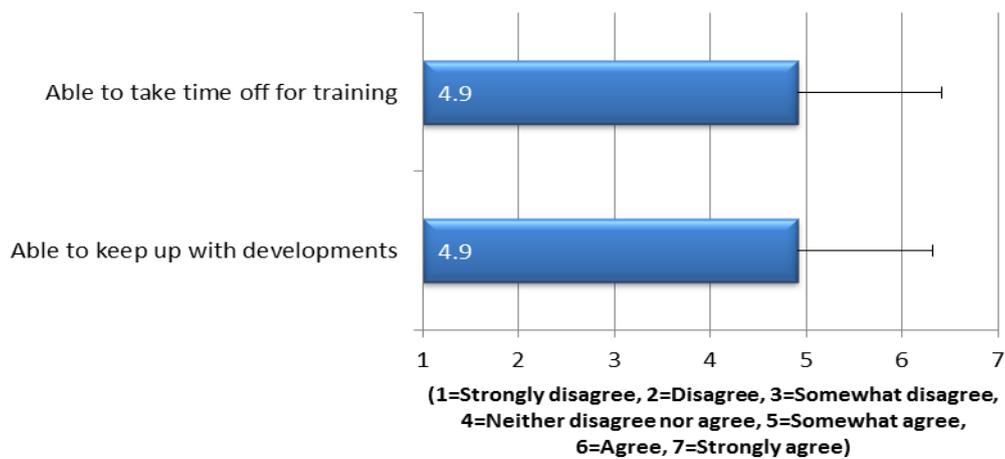


Figure 19: Professional development (error bars = 1SD)

A seven-point rating scale ranged from 1=Strongly disagree to 7=Strongly agree and a total of 2698 responses were collected. More than 21% (M=4.9, SD=1.5) of respondents reported to some degree that they were unable to take time off for training, while nearly 20% (M=4.9, SD=1.4) were not able to keep up with developments to do with their job.

Six statements assessed how participants feel about the rewards they receive at work (Figure 20).

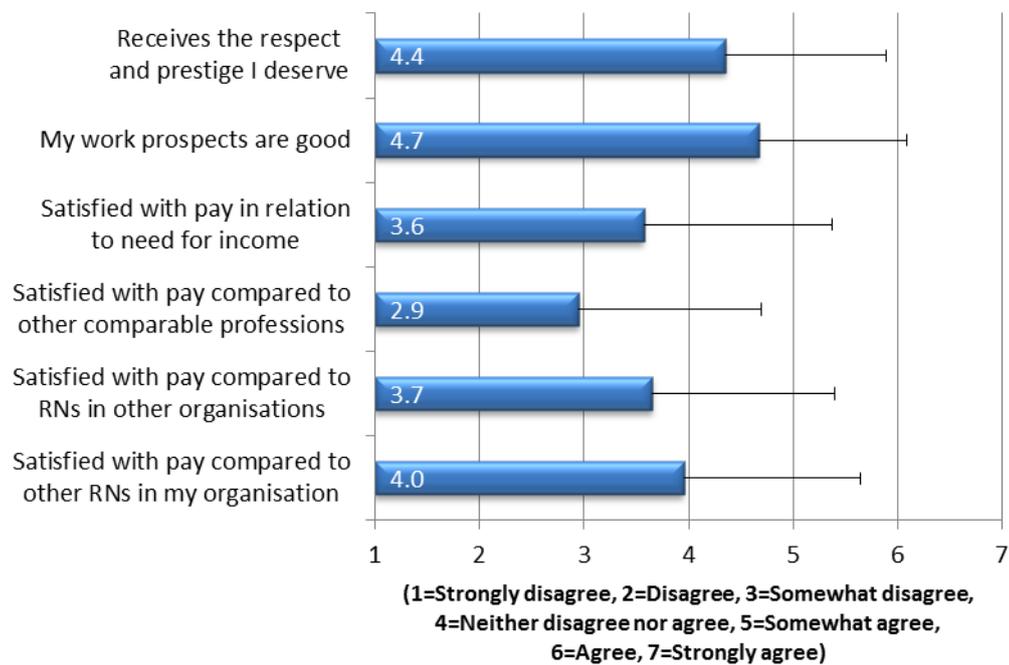


Figure 20: Rewards (error bars = 1SD)

The first statement related to respect and recognition, the second to promotion and the final four were regarding pay. A seven-point rating scale ranged from 1=Strongly disagree to 7=Strongly agree and a total of 2698 responses were collected. Almost 30% ($M=4.4$, $SD=1.5$) of RNs felt to some degree that they did not receive the respect and prestige they deserve at work. Over 18% ($M=4.7$, $SD=1.4$) of RNs did not feel that their work prospects were good. Over 51% ($M=3.6$, $SD=1.8$) of RNs were to some degree dissatisfied with their pay in relation to need for income, while almost 70% ($M=3.0$, $SD=1.7$) were dissatisfied with their pay considering the pay of other comparable professions. A total of 45% ($M=3.7$, $SD=1.7$) of RNs reported feeling dissatisfied with their pay considering the pay of RNs in other organisations and over 35% ($M=4.0$, $SD=1.7$) were dissatisfied with their pay in relation to the pay of other RNs within their organisation.

Levels of autonomy were measured with three statements (Figure 21).

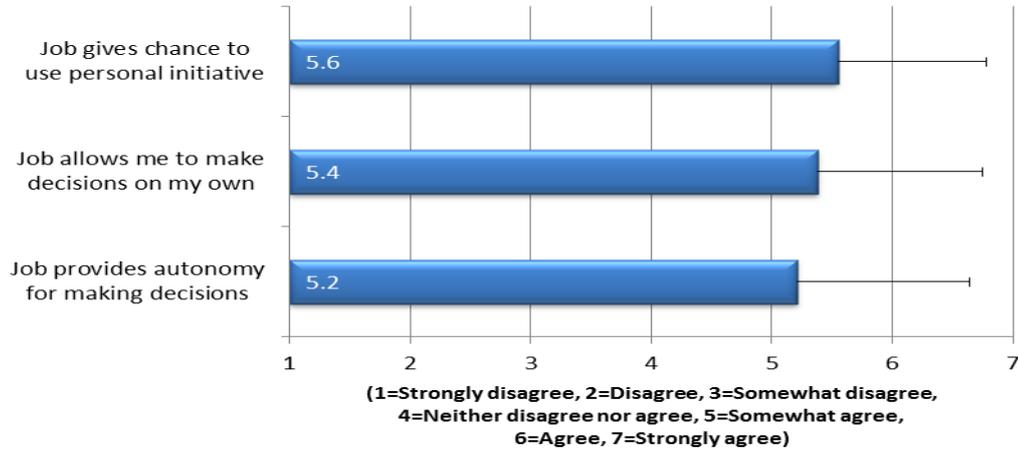


Figure 21: Autonomy (error bars = 1SD)

A seven-point rating scale ranged from 1=Strongly disagree to 7=Strongly agree. A total of 2694 responses were collected. Nearly 13% (M=5.6, SD=1.2) of participants said their job did not give them a chance to use personal initiative or judgment, just 11% (M=5.4, SD=1.4) were not able to make many decisions on their own and over 13% (M=5.2, SD=1.4) did not have significant autonomy in making decisions.

Participants were asked to rate three statements to measure levels of value congruence between employee and employer (Figure 22).

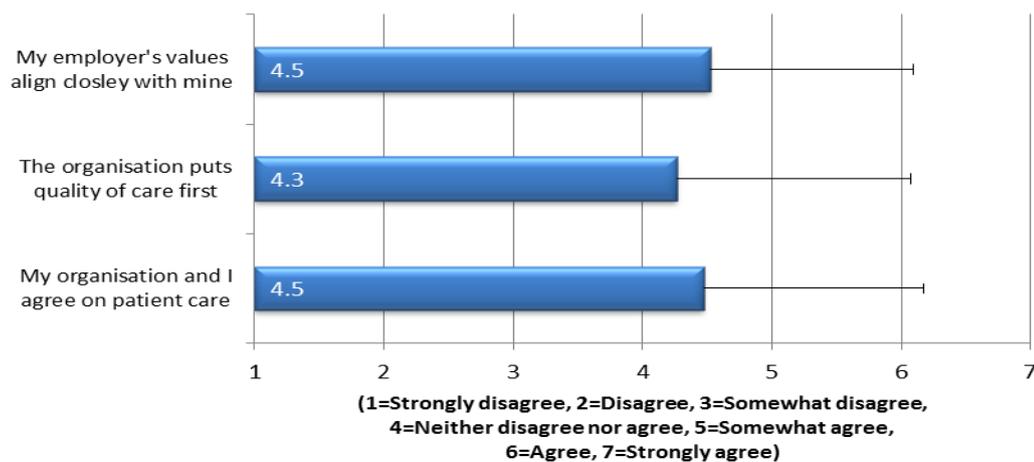


Figure 22: Value congruence (error bars = 1SD)

A seven-point rating scale ranged from 1=Strongly disagree to 7=Strongly agree. A total of 2694 responses were collected. Approximately 23% (M=4.5, SD=1.6) of RNs felt to some degree that their employer's values did not align with their own personal values, over 34% (M=4.3, SD=1.8) reported that those above them in the organisation did not put quality of patient care first, while almost 30% (M=4.5, SD=1.7) said they and their organisation did not agree on patient care.

Six statements measured the self-efficacy dimension of psychological capital (Figure 23).

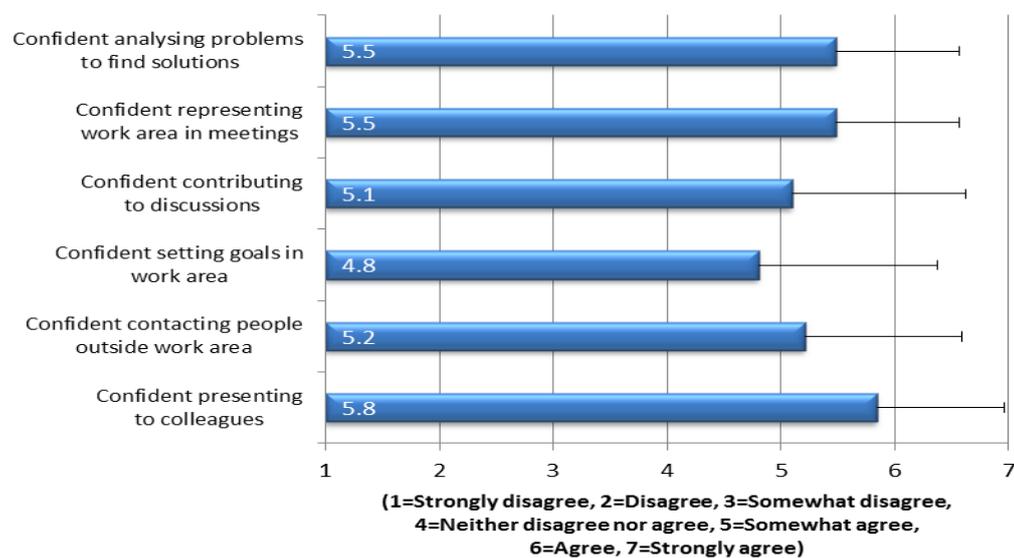


Figure 23: Psychological capital (error bars = 1SD)

A seven-point rating scale ranged from 1=Strongly disagree to 7=Strongly agree. A total of 2655 responses were collected. Nearly 85% (M=5.5, SD=1.1) of respondents felt confident analysing a long-term problem, more than 70% (M=5.1, SD=1.5) were confident representing their work area in meetings with management and 63% (M=4.8, SD=1.6) felt confident contributing to discussions about the organisation's strategy. Over 75% (M=5.2, SD=1.4) of RNs said they felt confident setting targets and goals in their work area, almost 90% (M=5.8, SD=1.1) felt confident contacting people outside of their work area and over 82% (M=5.5, SD=1.3) felt confident presenting information to a group of colleagues.

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