THE ASSOCIATION BETWEEN JOB STRAIN AND PSYCHOLOGICAL WELL-BEING IN NATIONAL HEALTH INSURANCE PILOT CLINICS

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Declaration

I certify that the work in the dissertation entitled “The Association between Job Strain and Psychological Well-being in the National Health Insurance pilot clinics” has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than the University of Kwazulu - Natal.

I also certify that the dissertation is an original piece of research and it has been written by me. Any help and assistance that I have received in my research and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the dissertation.

Dianne Ackerman

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Abstract

A review of literature revealed that South Africa is faced with a quadruple burden of disease that is exacerbated by the high incidence of co-morbid depression amongst chronic patients. In a country where mental disorders are still highly stigmatised, providing integrated care becomes a challenge. Dealing with mental health requires caregivers to provide a service that they are not sufficiently trained for or comfortable providing. With the introduction of the National Mental Health Care policy framework and action plan in South Africa, through Primary Care 101 (PC101) which is an integrated set of chronic care guidelines, nurses are receiving additional training on mental health in order to facilitate the process of integration.

In the context of all these changes, the aim of this study was to establish the association between job strain and its constructs with psychological well-being. In addition, the study aimed to investigate the relationship between self-efficacy and psychological well-being.

The study made use of a quantitative measure in the form of a cross-sectional survey. The study was conducted at the National Health Insurance (NHI) pilot clinics in Klerksdorp, in the North West province as part of the Programme for Improving Mental Health Care (PRIME-SA) project. The sample consisted of professional nurses (n=137). Data was analysed using SPSS 22.0 through frequencies, descriptives and correlations between job strain, psychological job demands, decision latitude, self-efficacy and psychological well-being, and finally multiple regression analysis was conducted.

The study findings indicated that nurses who experienced high levels of job strain would be more likely to possess low levels of psychological well-being. Furthermore, nurses who reported higher levels of control over their environments were likely to have higher levels of psychological well-being. Additionally, an increase in levels of self-efficacy was associated with an increase in the levels of psychological well-being. The relationship, however,

between psychological job demands and psychological well-being indicated that increased psychological job demands was associated with a decrease in the levels of psychological well-being. Multiple regression analysis showed that self-efficacy was the only construct which made a unique positive predictive contribution to psychological well-being.

The results of this study suggest that possible interventions to enhance decision latitude and self-efficacy of nurses may help enhance psychological well-being of nurses. Self-efficacy, making the only unique positive predictive contribution to psychological well-being, will have important implications for future interventions; hence the focus of this study is on self-efficacy when suggesting interventions. Such interventions may help attract and retain nurses and ultimately contribute to the success of the re-engineering of primary health care and the NHI.

Key terms: Job strain; psychological well-being; re-engineering; NHI

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Chapter 1: Introduction and Background

1.1 Introduction

According to both Jenaro (2011) and Petersen (2004), nurses are the backbone of the health system in South Africa and the success of any policy or health plan is dependent on them. This chapter will begin with the problem statement which outlines the need for this study and the gaps that this study aimed to address. This is followed by the chapter outline, which briefly summarises each chapter and lastly, Chapter One ends with a conclusion of what has been discussed and outlined.

1.2 Problem Statement

According to the World Health Organisation (WHO) (2004, p.10) there is "no health without mental health". This research is being put forward to address the current gap in mental health promotion in the workplace in South Africa. There is a paucity of mental health promotion in the workplace in low and middle income countries (Barry, Canavan, Clarke, Dempsey, & O'Sullivan, 2009) yet it still remains one of most frequent reasons for an employee's inability to perform. According to Hassard, Cox and Murawski (2011), poor mental health is the fourth most frequent reason for incapacity of workers. Though this will be discussed in detail at a later stage, it is important to highlight that poor mental health may result in frequent incapacity of employees within the context of the transformations in the health care system. This is particularly important considering the introduction of the re-engineering of Primary Health care (PHC) which attempts to strengthen the PHC system in South Africa.

Historically PHC in South Africa has consisted of public and private health care. This was a reflection of the Apartheid ideals which saw the elite having access to private quality health care while the oppressed had to contend with below-standard health care. The National Health Insurance (NHI) is being introduced in order to reduce the disparities between the

public and private health care systems (Saloojee, 2011). This will be achieved by narrowing the gap between public and private health care as patients will receive quality health care at public facilities. Furthermore, members of the public who need high care and surgery will be allowed to have these procedures at a private health care facility.

The declaration of "no health without mental health" is very relevant within the changing context of PHC in South Africa, following the introduction of the re-engineering of PHC and the proposed NHI. Nursing is inherently a stressful occupation (Stein-Parbury, 2000) as the workload may find nurses physically and emotionally drained. According to Andrew and Kacmar, (2014) added workloads can promote job strain. The re-engineering of PHC coupled with an added workload for nurses may therefore lead to higher levels of stress amongst nurses.

As suggested by Andrews and Kacmar (2014) there is a heightened chance of increased levels of stress being experienced by PHC nurses given these changes, which include task shifting of many specialist tasks to nurses. These tasks include the integration of mental health care, anti- retroviral treatment initiation and management of HIV-positive patients. According to (Dunjwa, 2015), the lack of service delivery has resulted in patients' complaints which arise because the lack of resources makes nurses seem inefficient. Furthermore, nurses' added functions have resulted in them being unable to perform their job effectively. In essence, nurses have to consult with more patients in a day and thus spend less time per patient (Surender, 2014).

There is a gap in the literature with regard to nurses' mental health and psychological well-being, with much of the literature referring to nurses having to promote mental health and psychological well-being of the patients and not themselves (Ruddick, 2013). Literature referring to the psychological well-being and mental health of nurses is predominantly

international research; hence the usefulness of this research to provide information on nurses' psychological well-being in the South African context. Furthermore, there is a need for this study as much of the research in this regard is outdated; few current studies focus on nurses' psychological well-being and mental health.

In addition, this research is important as, with task sharing, nurses are expected to take care of patients' mental health. In order to undertake this task, the psychological well-being of nurses themselves needs to be considered. Although there is an increased awareness of the threats facing psychological well-being of nurses, according to Parker (2014), nurses are expected to be the healthy caregivers. It is taken for granted that nurses may face the same problems that patients face; however nurses may be afraid to make these problems known.

A reason for this is explained by Hadlaczky, Hockby, Mkrtchian, Carli and Wasserman (2014) who expressed that the negative stigma attached to mental health may find individuals afraid to admit that they may have mental health problems. Due to the negative stigma attached to mental disorders, nurses are not consulting with the support systems put in place, such as employee assistance programmes (Walker & Gilson, 2004). It is therefore important to not only make sure that patients are getting quality health care but that there is care for the caregiver. Caring for the caregiver will in turn ensure that the patients get quality health care (Rispel & Barron, 2012).

This research is part of a bigger project within the Programme for Improving Mental Care (PRIME) and Emerald (Emerging Mental Health Systems in low- and middle-income countries) which are concerned, respectively, with the development and implementation of packages of mental health care for priority disorders and strengthening systems to support integrated care. This research included the clinics and nurses who are part of the re-engineering process in an NHI pilot district (Dr Kenneth Kaunda District) in the North West

province, South Africa. The research aimed to investigate the current levels of job strain on PHC nurses involved in the re-engineering process as well as whether there is an association between increased job strain and psychological well-being. It is hoped that this research will raise awareness of this issue and the possible need for mental health promotion interventions for PHC nurses so as to protect this precious human resource which forms the backbone of the re- engineering of PHC and National Health Insurance (NHI).

This research is a foundation for the formation of mental health promotion and interventions that have been found to be vital for caregivers (Rapp & Chao, 2000). The importance of this research lies in its provision of information on the relationship between job strain and psychological well-being. The information will be useful in making recommendations to the authorities involved with the re-engineering of the PHC system and NHI and informing mental health promotion and interventions that the projects PRIME and Emerald will oversee.

1.3 Chapter Outline

This dissertation consists of five chapters. Chapter one provided an introduction to the study with an emphasis on the study's rationale and the gaps that will be addressed.

Chapter Two provides a review of the literature pertaining to job strain and its effect on the psychological well-being amongst nurses in the NHI pilot clinics. Firstly, the researcher provides a background to health care in South Africa during the Apartheid era and post-Apartheid and the need for restructuring of the health care system. The researcher then goes on to give an explanation of the re-engineering of primary health care and then an explanation of the National Health Insurance, its aims, as well as the perceptions of both proponents and opponents. After giving the background to the study and the policy, the researcher explains the constructs that are looked at in the study: firstly, job strain, secondly,

psychological well-being and thirdly, mental health. Explanations and insights are given for each of the constructs. The researcher goes on to address nursing in South Africa, the current problems within the health care system and profession. Chapter Two includes the theoretical frameworks which were the job demand control model and the ‘Broaden and Build’ theory. The discussions include their relevance to the study. The chapter concludes with the research questions and objectives.

Chapter Three addresses the methods used in the study. The chapter describes the study site, study sample, study procedure, data collection techniques, the instruments and their reliability and validity, data analysis and ethical considerations.

Chapter Four provides an introduction to the results, the results of the correlations of the study and the findings from the scales.

Chapter Five includes a discussion and conclusion to the study. The chapter gives an introduction to the discussion as well as a discussion of the results that were found in the study in the context of the existing literature. In addition, the chapter includes limitations of the study, the recommendations and contributions to primary health care for the promotion of mental health and promotion of positive psychological interventions to increase nurses’ psychological wellbeing.

Chapter 2: Literature Review and Theoretical Frameworks

2.1 Introduction

This chapter will discuss the history of the health care system in South Africa to provide a context for the current re-engineering of the PHC system and the proposed NHI. The review of literature will provide insights into how the NHI focuses on the benefits for society, with little regard for the nurses who will be administering mental health services in the NHI pilot clinics. From the literature, insights are gained on job strain, psychological well-being and mental health as well as how these factors play a role in the nurses' performance and how the association between job strain and psychological well-being of nurses may in turn affect the NHI's success. The literature review also seeks to give an explanation of how self-efficacy as measured by the psychological capital questionnaire, may be related to psychological well-being.

2.2 Background to the Health Care System in South Africa

In order to understand the need for the re-engineering of PHC and the NHI, one must take into consideration that the South African health care system has been one of the most unequal in the world. Health care was not free and fair to all South Africans during Apartheid, as substantiated by Coovadia, Jewkes, Barron, Sanders and McIntyre (2009) who asserted that Apartheid, through the migrant labour system and general impoverishment of the African population, had a major effect on the structure of the black family. Essentially, in the past, many black families were not given the same opportunities and amenities as white families. In turn, this affected black people's health and access to quality health care. Health care provision was segregated along racial lines, which saw black people receiving inferior health care. However, with the emergence of democracy in South Africa, there are increased

opportunities for equality and equal opportunities for all to have access to quality health services and to be healthy.

In 2004, a national health insurance was proposed for the National Health Act incorporating public and private sectors and a district health system to implement primary health care (PHC) throughout South Africa (Coovadia et al., 2009). The national health insurance was proposed in order to reduce the disparity between the public and private health care sectors. Past injustices have found the majority unable to afford quality health care services, thus the NHI is trying to afford the previously disadvantaged an opportunity for quality health care services (Saloojee, 2011). However, the NHI is not the first policy that attempts to redress the imbalance of the apartheid era. From 1994 onwards, a number of Reconstruction and Development Programmes (RDP) were developed (Kautzky & Tollman, 2008). In 1996, a policy providing free health care to children and pregnant women was developed (Kautzky & Tollman, 2008). However, according to Kautzky and Tollman (2008) translating these policies into practice became arduous. The health care initiatives were not successful because health care workers were not sufficiently informed or empowered (Kautzky & Tollman, 2008). Hence, this study attempts to highlight the need to focus on increasing nurses' psychological wellbeing and decreasing their experience of job strain, in order to ensure the success of the NHI.

2.3 Re-engineering of Primary Health Care

According to Petersen (2000), in order for improvement to take place in the health care sector, the PHC system needed to be overhauled and restructured. This was because South Africa has a quadruple burden of disease that is currently crippling the health care industry. A quadruple burden of disease means that health care in South Africa is burdened by poverty, non- communicable diseases, HIV/ Aids and violence and injury (Coovadia et al., 2009). In addition, the government realised that in order for progress in the public health care sector,

they had to restructure PHC services in order to accommodate the quadruple burden of disease facing South Africa. The ministry of health in South Africa visited Brazil in 2010 and saw that Brazil had managed to successfully implement district health services (Pillay & Barron, 2012). Thus the idea and vision for re-engineering the PHC system was brought back to South Africa.

There are three streams of the PHC re-engineering; the first stream is a district based model whereby the high levels of maternal and child mortality, HIV and treatment of chronic conditions will be addressed (Pillay & Barron, 2012). The second stream is a school based PHC system with a focus on health promotion, prevention and curative health services, as well as on addressing the needs of children who are attending school (Pillay & Barron, 2012). The third stream is a ward based PHC outreach programme attached to each clinic which will depend on the area served with each community health worker allocated 250 households. This team is put in place to promote good health and prevent ill health through community interventions. The presupposition of the three streams is to strengthen communities and improve the delivery of health services (Pillay & Barron, 2012).

The PHC in South Africa is being re-engineered so as to strengthen the health care system. According to Rispel and Barron (2012), there is a gap between policy formulation and policy implementation. They posited that this gap could be due to a failure to consider the association that job strain has on the psychological well-being of the service providers, which this research set to find out.

2.4 The National Health Insurance

In August 2011, a green paper on the NHI was published by the Department of Health in the Republic of South Africa. According to the Department of Health (2011), the South African health system is not equal and fair. The NHI provides for redressing these inequities, building

on human rights for access to quality health care. The NHI is also in keeping with universal coverage that the World Health Organisation promotes (Department of Health, 2011). The policy on the NHI will have a 14 year phased implementation period in 10 selected pilot districts (Saloojee, 2011). In the policy paper, the principles of the NHI are that health care should be free; people should have a choice of the provider of their care; there be universal coverage, equity and social solidarity; additionally, health services should meet quality standards according to the needs of the population and not their ability to pay (Saloojee, 2011).

The goals of the NHI are to provide efficient and effective service delivery in public and private sectors, universal coverage, creation of a public fund with reserves and funds for high cost care, as well as the promotion of health and prevention for patients seeking health care. (Saloojee, 2011). Given that nurses form the backbone of the PHC system, there is unfortunately no goal concerning the provision of services for nurses who may suffer from job strain with an added workload as a result of the re-engineering of PHC. According to Saloojee (2011), it has been suggested that one nurse is assigned two hundred patients per day. From reading the policy, there is little mention of the provision for nurses' psychological well-being and interventions to combat the job strain that nurses may experience.

The proponents of the NHI believe that the NHI is a way forward, to finally meet the needs of all the citizens in South Africa. These positives have been reiterated by the Department of Health (2011). According to the Department of Health (2011), considering the high number of people who are impoverished in South Africa, the NHI will benefit the poor, giving everyone access to health care and contribute to keeping the society healthy and productive.

However, the opponents of the NHI believe that this is going to be too expensive. There is a particular concern regarding the increase in taxes (Saloojee, 2011). There will be money

deducted from workers towards the NHI, thus with the increase in taxes, the nurses will not only have to cope with an added workload but added expenses.

The NHI has also been criticised for being bureaucratic, top-down and prescriptive. This leaves less decision latitude on the part of health care workers. Nurses who have been referred to as street level bureaucrats (Walker & Gilson, 2004) because of their lack of autonomy and decision making authority, may find their situation worse with the introduction of the NHI policy. Hence the additional objective of investigating the relationship between the nurses' decision latitude and their psychological well-being.

In addition to the criticisms of the NHI, according to Rispel and Barron (2012), the national health insurance policy does not give enough detail and has left the majority of people uncertain about how it will be rolled out. Extra expenses and uncertainty regarding how the policy will be implemented can also lead to additional job strain on the nurses, which in turn can affect the psychological well-being of nurses, further emphasising the imperative of conducting this study.

With re-engineering of PHC, the roles of nurses are being expanded to include supervising community health workers who provide additional community and home-based services through community outreach teams. Furthermore, in addition to nurse initiated anti-retroviral treatment and follow-up care, the role of nurses has also expanded to include the identification and management of mental disorders which is new to many nurses working in the NHI pilot clinics. One has to be aware of the effect that these additional tasks may have on nurses' psychological well-being and the additional strain more tasks will have on them. The constructs to be looked at further in this study are job strain, psychological well-being and mental health.

2.5 Nursing in South Africa

There has been a dramatic increase in nurse vacancies which is a cause for concern for PHC as there is already a shortage of nurses. Nurses are confronted with death and suffering daily, especially in South Africa where HIV and Aids, rape and murders are rife. Nurses are inclined to look out for others more than themselves in the workplace (Radziewicz, 2001). Due to this caring role, it is important to ensure that mental health is promoted in the workplace and the psychological well-being of nurses is enhanced and taken care of.

A person with underlying psychological issues is less likely to have the ability to deal with psychological issues other people are experiencing (Murray, 2005; Shah, Wadoo, & Latoo, 2010). For instance, as stress continues, so too does the loss of interest and motivation in activities. This study attempted to find out how these expanded caregiving roles affect the nurses' experiences of job strain and their effect on psychological well-being. According to Saloojee (2011), health professionals should change any negative attitudes and perceptions of primary health care. According to Walker and Gilson (2004), nurses perceive themselves as bearing the brunt from patients because of an inadequate public health care system. Furthermore, there exists a perception amongst nurses that the health care system does not benefit them, but rather that the benefits lie with the patients at the service of the nurses (Rispel & Barron, 2012; Walker & Gilson, 2004). These perceptions may add to the experiences of job strain as nurses feel they have little control. In addition to these negative perceptions, nurses lack the ability to cope with the expanded demands placed on them. In order to develop norms and standards that will ensure quality health care and also assist them in dealing with traumatic cases, authorities should take into consideration nurses' interests and psychological well-being by making resources available for the nurses to get help and better cope with expanded demands. Such resources should include effective employee assistance programmes (Saloojee, 2011).

Rispel and Barron (2012) stipulate that if the authorities do not take into consideration the nurses in the NHI pilot sites, health care may not be of a high quality and the goals set by the NHI policy may not be achieved. In a study about the perceptions of free PHC by Walker and Gilson (2004), some of the main problems highlighted were a shortage of resources, limited communication and consultation, high patient load and a reduced supply of drugs. PHC nurses are often the first point of contact that patients have with the health care system and they bear the brunt of frustrated patients. Patients blame the nurses for the shortages of medical resources and staff which demoralises the nurses and negatively influence the nurse-patient relationship. In addition, the "overwhelming majority of nurses felt excluded from the policy process and that their experience and expertise were overlooked" (Walker & Gilson, 2004, p.1256). Having no input in the policy and the lack of control over their jobs may result in nurses experiencing job strain, in turn reducing their psychological well-being.

These problems are seemingly vital for the authorities to address in order to improve the psychological well-being of the nurses in the NHI pilot clinics. It is suggested that introducing greater decision latitude for nurses may help to reduce some of these negative ramifications of expanded roles and responsibilities. This is because increased job control may prove to increase one's job strain; similarly if an individual is given control it may increase one's psychological well-being (Karasek, 1979).

According to De Witte, Verhofstadt and Omey (2007), job decision latitude assists nurses to become more active and motivated to get on with their jobs. In a study by Walker and Gilson (2004) in South Africa, it was found that nurses were quoted as saying, "patients know the changes better than us" (Walker & Gilson, 2004, p.1257). The nurses felt that they were left out of the decision making process and together with increased patient numbers and lack of support, the nurse workforce is increasingly demoralised (Walker & Gilson, 2004). This

entrenches nurses' socialisation during their education and training where they are taught to take instructions from doctors and be subservient.

Furthermore, an international study by Stordeur, D'Hoore and Vandenberghe (2001) found high workloads and lack of job clarity to be the main stressors amongst nurses. A subsequent international study by Edwards and Burnard (2003) found other stressors amongst nurses such as poor quality of social support, financial and resource issues and a heavy workload, puts additional strain on nurses. Provision has been made in the NHI policy for the patients in the NHI policy; however nurses feel that the community has benefitted from free health care much more than they have (Pillay, 2009). Furthermore, nurses have also reported that if the government does not respect them, patients will not respect them (Walker & Gilson, 2004); hence the call by Walker and Gilson (2004) for authorities to consult with the nurses and give the nurses more autonomy, job decision latitude and improve their self-efficacy through recognition and praise. These aspects are also explored by the current study. According to Walker and Gilson (2004), nurses' sense of power has deteriorated while that of patients' has improved because the system has not addressed caring for the caregiver.

A further concern raised by nurses regards their safety (Walker & Gilson, 2004). The clinics are in areas that are not always safe; therefore clinics are often targets for crime. Nurses have to worry about working long shifts and leaving their homes unattended and vulnerable for the criminals to burgle during the day or night (Walker & Gilson, 2004). With nurses being susceptible to job strain, these could also be reasons for nurses to leave their jobs and could contribute negatively to their psychological well-being.

Although the above mentioned studies have reported why nurses are feeling demoralised, in contrast to these findings Walker and Gilson (2004) found that nurses felt bitter towards their jobs yet satisfied through their work which verifies that nurses are essentially intrinsically

motivated. Previous research has found that nurses remain in their jobs regardless of job strain, with nurses stating “we are bitter, but we are satisfied” (Walker & Gilson, 2004, p.1254). Most nurses attribute their loyalty to their job to the intrinsic value of being able to help people, even though it can become stressful. Workers who are intrinsically committed to their jobs are, however, more susceptible to frustration because they expose themselves to high demands and efforts only to get disappointing rewards (Siegrist et al., 2004).

In relation to coping strategies, Walker and Gilson (2004) found that nurses help one another through sharing problems and being a shoulder to cry on, in order to deal with the psychological distress. The involvement of other people has been found to distract people from their distress (Stein-Parbury, 2000). In addition, internationally, Stein-Parbury (2000) found that cultural and religious beliefs were reported by nurses to aid them in dealing with stressful situations.

Individual psychological capital can also help alleviate stress and negative emotions amongst nurses by replacing negative with positive emotions. Nielsen, Yarker, Randall and Munir (2009) found that the positive psychological capacity of self-efficacy can also act as a buffer for the job strain experienced by nurses through the enhancement of the nurses’ psychological well-being.

Job strain in previous literature has been found to be prevalent among nurses and may be a negative influence in the re-engineering process at present. The literature reviewed in the above section suggests that self-efficacy may reduce negative consequences and act as a buffer for stress (Stein-Parbury, 2000). Providing social support to one another may also be a useful coping strategy.

It can be concluded that the history of South Africa and South Africa’s health care in the past has influenced the present and influenced the need for a national health insurance. The

introduction of the NHI aims to provide universal coverage and give the people of South Africa power in their choice of health care. Re-engineering of the PHC system is central to the NHI. Nurses, who form the backbone of the PHC system have however, been given little consideration with regard to additional job strain.

2.6 Job Strain

Job strain can be defined as "high psychological demands and low decision latitude on the job" (Schnall et al., 1990). Job strain is comprised of two constructs: psychological job demands and decision latitude; psychological job demands refer to psychological stressors which accompany unexpected tasks, conflict that is job related or personal and difficulties in managing a workload (Karasek, 1979). Decision latitude, which is also referred to as control, is a working individual's potential control over a task or conduct during the working day (Karasek, 1979). Job strain occurs when job demands are high and job decision latitude is low. According to De Lange et al. (2008), high job demands are associated with long working hours which result in limited time for recovery and sleep; thus the demands of a job are attributed as the cause for the levels of strain experienced.

A qualitative study of nurses in South Africa found nurses complaining of long hours, more patients per nurse, the expectations which accompanied the Primary Care (PC) 101 training, lack of safety, lack of communication and working conditions as causes of job strain (Rispel & Barron, 2012). Drawing from these past studies, this study sets out to investigate the relationship between job strain, job demands and decision latitude on the nurses' psychological well-being within the NHI and the re-engineering of PHC.

Job strain may affect the re-engineering of primary health care negatively if nurses have feelings of low personal accomplishment and there is a mismatch between demands and rewards (Bakker, Kilmer, Siegrist, & Schaufeli, 2000). A study prior to the re-engineering

process already suggested that nurses were not feeling rewarded or empowered, experiencing overwhelming job demands (Walker & Gilson, 2004). With regard to understanding job strain, the effort reward model is perceived to be relevant because it suggests that an imbalance of the two leads to stress (Koch, Schablon, Latza, & Nienhaus, 2014). Rewards in this model are perceived to be money, esteem, opportunities and job security (Tsutsumi & Kawakami, 2004). The current study, however, did not employ the effort reward model because the literature suggests that many nurses find an intrinsic value to their job and they seek control rather than rewards (Karasek, 1979). Hence the relevance of the job demand control model which will be discussed as a theoretical framework of this study.

One of the constructs which contributes to job strain is psychological job demands. With an increase in job demands, and few rewards, nurses can expect to experience negative emotions (Rispel & Barron, 2012). These negative emotions can influence the nurses' psychological well-being. An unhealthy nurse professional treating an unhealthy client should not be the ideal picture of any health care provision according to Van Vegchel, De Jonge, Bosma, & Schaufeli (2005). According to Tsutsumi and Kawakami (2004), workers with high demands and low control have the highest risk of illness. According to Heponiemi, Elovainio, Pekkarinen, Sinervo and Kouvonen (2008), high demands and low control have a negative influence on the work-home balance as well. Therefore, negative feelings at work and at home may decrease a nurse's psychological well-being.

Interventions which can be used to reduce job strain include increasing levels of autonomy amongst health care workers which may in turn increase their levels of psychological well-being. De Jonge et al. (1999) and Parkes, Mendham and Von Rabenau (1994) found that simply lower levels of job strain led to lower symptom levels irrespective of social support or autonomy. Having discussed job strain, the literature on psychological well-being will now be reviewed.

2.7 Psychological Well-being

One of the aims of this research was to explore the association between job strain and psychological well-being of nurses in the NHI pilot clinics. Psychological well-being can be defined as the absence of mental illness and a state of health associated with low levels of negative emotions and high levels of positive emotions (World Health Organisation, 2001). The importance and need for the current research has been highlighted by Bournbonnais, Comeau and Vezina (1999) who did research on job strain and mental health among nurses and in conclusion, called for further studies of job strain on mental health and research on interventions in the workplace that enhance psychological health.

Nursing is considered to be an emotionally draining profession (Van Der Colff & Rothmann, 2009). Experiencing more negative emotions than positive emotions can have an adverse effect on an individual's psychological well-being (Fredrickson, 2001). According to Rispel and Barron (2012), negative emotions of nurses may be elicited through long hours, many patients, lack of safety as some clinics are open 24 hours with little security, lack of communication between the senior executives and the nurses, in addition to unconducive working conditions with little space and many patients to accommodate. All the above mentioned factors have been expected to be present in the NHI pilot clinics, which may affect the nurses' experiences of job strain and subsequently affect the psychological well-being of the nurses (Rispel & Barron, 2012). According to Parker (2014) nurses may in turn experience mood disorders, depression, anxiety and substance abuse; therefore it is important to take care of nurses' psychological well-being to ensure better care of patients.

The core dimensions which underpin psychological well-being are autonomy and environmental mastery, which is the individual's ability to choose or create an environment suitable to the individual's psychic conditions (Steptoe, Deaton & Stone, 2015). In nursing, environmental mastery becomes difficult as nurses have little control over their work

environment leading to feelings of disempowerment. According to Parker (2014), nurses are expected to promote the patients' sense of empowerment and resilience; yet they too face the same daily struggles and report feeling disempowered (Ruddick, 2013). In particular, nurses feel that they are not consulted in respect of changes taking place in the PHC system in South Africa (Walker & Gilson, 2004). Mental health promotion interventions are needed to help nurses to cope, thus reducing their levels of job strain which should in turn, strengthen the quality of health care given to patients. Mental health can be referred to as an individual's capabilities and functioning in everyday life relative to his or her state of emotional and psychological well-being (Keyes, 2006). According to the World Health Organisation (2004), mental health refers to a state of well-being in which every individual realises their own potential, is able to cope with the normal stresses of life, can work productively and fruitfully be able to make a contribution to their community. The purpose of looking at mental health as part of this research is because of the relationship that job strain has with psychological well-being, which consequently affects a person's mental health. As the WHO has stated, there is no health without mental health, therefore it is vital to look at the mental health of nurses, particularly because the mental health of the nurses working within the NHI pilot may be jeopardised.

According to Thomas (1997), mental health problems are significantly correlated with an increase in workload, understaffing and perpetual organisational change. These findings are a cause for concern in the context of the re-engineering of PHC. According to Prosser et al. (1999), mental health workers are at high risk of mental illness, burnout and suicide. The nurses working in the NHI pilot sites are now expected to integrate mental health into their job description. Nurses who are suffering from mental disorders are less likely to identify these disorders in the patients (Happel & Platania-Phung, 2005; Guthrie et al., 2009). This observation is substantiated by Happell and Platania-Phung (2005) who found that patients

with mental health problems are avoided by nurses due to their feelings of powerlessness from inexperience and a lack of expertise or training with mental health care. Thus it would be important for services to be provided to nurses in order for them to cope with their own emotional problems which may in turn result in lower detection of mental disorders amongst nurses and better management of patients with mental disorders.

Contributing to mental health problems in nurses is high job demands in the absence of high decision latitude. Fong (1993) found an association between psychological disorders and high job demands. Furthermore, McDaid, Knapp and Medeiros (2008) found a trend in absenteeism and early retirement due to mental health problems. There has previously been a trend associated with increased job strain and absenteeism, which indicated that a lack of psychological well-being and high job strain within the NHI pilot clinics may result in nurses who are often absent from work when most needed. Furthermore, health care workers in the field of mental health, tend to be at a higher risk of mental illness (Thomsen, Soares, Nolan, Dallender, & Arnetz, 1999). Thus the integration of mental health care as part of nurses' duties and the changes associated with re-engineering raises red flags concerning the impact on their own mental health.

2.8 Psychological Capital

Luthans, Youssef and Avolio (2007, p.10) defined psychological capital as "an individual's positive psychological state of development, 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 towards 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 (resiliency) to attain success". Psychological capital has been found to be related to psychological well-being (Avey, Luthans, Smith, & Palmer, 2010) therefore it is believed that

developing the psychological resources of workers can address issues individuals may have in organisations and improve their commitment to the organisation; addressing issues and improving commitment can thus be achieved through higher levels of psychological well-being (Mortazavi, Yazdi, & Amini, 2012).

According to Pillay, Buitendach and Kanengoni (2014), psychological capital significantly influences the organisational commitment of workers; as has been highlighted, nurse turnover is ever-increasing in South Africa, thus improved organisational commitment would be beneficial to the NHI pilot clinics to ensure the success of the re-engineering of PHC. It can be seen that there is a need to ensure that nurses receive positive psychological resources.

Bakker, Demerouti and Schaufeli (2003) postulated that individuals who have more resources at their disposal are better equipped to be effective despite demanding working conditions. In turn, equipping nurses with psychological resources such as self-efficacy, hope, optimism and resilience may find nurses being more effective despite the workload, lack of resources, long work hours and a lack of decision latitude (control).

2.8.1 Self-efficacy

According to Rego, Sousa, Marques and Cunha (2012) self-efficacy can be defined as possessing the confidence to take on and succeed at tasks which are challenging. Bandura (1997) referred to self-efficacy as the individual's belief of his or her ability to accomplish a task or cope with demands in the environment; however within the work context, self-efficacy may be measured as the individual's self-appraisal of their ability to deal with work demands, given the resources they possess (Bandura, 1997).

Self-efficacy provides the motivation for an individual to persist despite challenges (Luthans et al., 2007); this association may be beneficial to nurses in the NHI pilot clinics as the nurses face many hindrances such as a lack of resources yet increased numbers of patients. Thus

nurses who possess self-efficacy may persist despite any hindrances they come across in the NHI pilot clinics and continue to be productive (Luthans et al., 2007). Self-efficacy will find an individual establishing goals, being unaffected by skepticism (Bandura & Locke, 2003). With a transformational change such as the re-engineering of PHC; self-efficacy may prove to be vital for the change to be effective. This assertion is substantiated by Avey, Wernsing and Luthans (2008) who ascertained that efficacy seems important for effective change efforts because employees are required to attain new skills and responsibilities. According to Avey et al. (2008, p. 55), this is particularly important considering that added workloads and working hours are a source of nurses' job strain in the NHI pilot clinics. Therefore, with the moderating effect of self-efficacy (Santos, Magramo, Oguan, & Paat, 2014), nurses may be less likely to experience job strain, which may result in an improvement in nurse turnover as well as organisational commitment. With regard to psychological well-being, Magaletta and Oliver (1994) asserted that an individual's level of self-efficacy will determine their level of psychological well-being. A low self-efficacy has been related to symptoms of anxiety and depression; depression is one of the conditions that nurses may suffer from if their psychological well-being is disregarded. The reason for the association between low self-efficacy and depression is that individuals with low self-efficacy tend to harbor negative thoughts about their personal development and performance (Avey, Luthans & Yousseff, 2006). A high self-efficacy has been related to positive well-being; the findings of Santos et al. (2014) indicated that self-efficacy can regulate the nurses' experiences of stress.

Therefore, this study incorporated an investigation of self-efficacy as a means to buffer the experiences of job strain and in turn increase psychological well-being. This is pertinent as stressors in a work environment can negatively change individuals psychologically. Thus stressors are less likely to have a negative impact on nurses who possess more positive perceptions about themselves, in essence those who possess self-efficacy. Furthermore, self-

efficacy may be useful for this study as high levels of self-efficacy have been found to be a means to decrease cynicism of nurses and increase organisational commitment (Santos et al., 2014). The assertion above has been substantiated by Bandura and Locke (2003) who posited that workers with low levels of self-efficacy display greater cynicism and less organisational commitment. Therefore self-efficacy may be beneficial in the NHI pilot clinics with the additional stressors on nurses.

2.9 Theoretical Frameworks

The theoretical frameworks that were used in this study are the Job Demand Control Model (JDC) and the Broaden and Build theory.

2.9.1 Job Demands Control (JDC) Model

The JDC model takes into consideration that psychological strain does not come from a single aspect of the work environment but from many demands in a work situation and the extent of decision-making freedom given to the workers (Karasek, 1985).

Job demands are psychological stressors present in the work environment such as workload, time pressure and role conflict (Karasek, 1979). Job control can also be referred to as decision latitude which is a person's ability to control their work activities; having job control or decision latitude has been found to reduce worker's stress (Van der Doef & Maes, 1999). From the research done by Walker and Gilson (2004) in which a nurse is quoted saying, "the patients know the changes better than us", it is evident that nurses do not feel consulted by the authorities; they do not have control, therefore their levels of job strain may be high. The same could be said within the re-engineering of PHC.

One would expect that if nurses are reporting high levels of job strain, a possible reason could be that they themselves had no input into the changes that are currently happening within the health care system.

The Job Demand Control model has three hypotheses, firstly that the workload relates positively to strain, secondly that job autonomy relates negatively to strain and lastly that the workload and job autonomy interact in a synergistic way (Baillien, De Cuyper, & De Witte, 2011). These hypotheses correlate with the study because through the literature it can be seen that an increase in workload leads to an increase in strain. According to De Jonge, Mulder and Nijhuis (1999) demands such as workload can predict emotional exhaustion. The Job Demand Control model also predicts health, motivational and productivity outcomes. Giving of a high performance and getting low reward can impact negatively on psychological well-being.

The current study looked at the mental health of the nurses and their psychological well-being, hence the appropriateness of the Job Demand Control model. It has been inferred from the model that being able to control demands serves as a buffering effect against stress and improving psychological well-being (Karasek, 1979). The Job Demand Control model states that decision latitude will reduce stress; stress has been synonymous with job strain thus emphasising the relevance of this model for this study. Given the context of the current study, the JDC model is ideal in helping to explore the association between job strain and psychological well-being of nurses in NHI pilot clinics.

The appropriateness of the Job Demand Control model is that the nurses in general have reported experiencing little control over a very demanding profession. Within the ambit of the NHI, it is logical to assume that the demands on nurses will increase with them still having little control over their jobs. Research by Karasek (1979) has suggested that when employees experience more control over their job, they exhibit less negative symptoms such as job strain. With an increase in the level of control, nurses could be more satisfied which would impact positively on their psychological well-being.

2.9.2 Broaden and Build Theory

Due to the addition of the psychological capital concept of self-efficacy being investigated by the current research, it is relevant to include the Broaden and Build theory. The Broaden and Build theory substantiates how individuals, in the face of adversities, are able to cope better with the assistance of positive emotions (Fredrickson, 2001). The Broaden and Build theory as a framework to the current study, further explains the concept of psychological capital whereby people who possess self-efficacy, hope, optimism and resilience have greater performance rates and in turn, increased psychological well-being (Magaletta & Oliver, 1994; Wissing & Van Eeden, 2002).

Fredrickson (1998) explained how positive emotions can broaden individuals' behaviours thus making them more flexible and creative in the way that they work. In essence, when experiencing positive emotions, individuals find the broadened behaviours assist in building work related skills, knowledge, ability and psychological resources (Fredrickson, 2001). The building of psychological resources was particularly pertinent to this study as the experience of positive emotions will broaden the nurses' behavior and in turn build their psychological well-being (Luthans et al., 2007).

Thus, enhancing nurses' experience of positive emotions may find their thoughts and awareness broadened, resulting in nurses flourishing (Compton, 2005). Having broadened their outlook, the nurses' skills and mental resources will be built; this may assist with the increased workload in the NHI pilot clinics and assist in enhancing their psychological well-being (Fredrickson, 2001). In turn the current re-engineering of PHC may find itself successful in this manner as the morale of the nurses will be increased. A reason for this proposed success would be that nurses will be more open to being effective as their experience of positive emotions will be long term (Simons & Buitendach, 2013). Furthermore, the experience of positive emotions may also find nurses more resilient to the

negative effects of job strain (Beal, Stavros, & Cole, 2013). Therefore, the above has shown that the use of the broaden and build theory as a theoretical framework may substantiate the use of self-efficacy as a means to decrease job strain and increase psychological well-being.

According to Fredrickson (2001) positive emotions can broaden individuals' behaviours thus making them more flexible and creative in the way that they work. Fredrickson (2001) postulated that overall positive emotions have been linked to occupational strain. There is, however a place for negative emotions; although positive emotions are promoted for nurses in this study, it has also been found that one has to have a balance between positive and negative emotions (Biswas – Diener & Kashdan, 2014). According to Talarico, Bernsten and Rubin (2009) although stress has been found to be negative for individuals, it has also been found that stress can also be productive for individuals. It is also unrealistic to expect that an individual will consistently consider positive emotions as opposed to negative emotions; especially since there are multiple patients per day, added workloads and a lack of service delivery (Saloojee, 2011).

2.10 Chapter Conclusion

The literature review gave a background to the study through a discussion of the history of health care system in South Africa and the re-engineering of the health care system and the National Health Insurance (NHI). This chapter served as a motivation for this study, by providing insights as to how the NHI focuses on the benefits of the society and less on the nurses. The literature gave further insights concerning job strain, psychological well-being and mental health, as well as how these factors play a role in the nurses' performance and how a lack of psychological well-being and mental health may in turn affect the NHI's success. The literature review also suggested that self-efficacy and mental health promotion may serve as an effective buffer for the effects of job strain. Chapter Two then went on to

discuss the theoretical frameworks which informed this study: Karasek's Job Demand Control model and Fredrickson's Broaden and Build theory.

Chapter 3: Methodology

3.1 Methodology Introduction

This section is concerned with the methodology which will describe the study site where the research took place; discuss the research method and approach used; explain the procedure and the sampling method used; describe the data collection techniques, data analysis and finally, the ethical considerations in relation to this study. For the purposes of this methodology chapter, it is important to note that this study uses secondary data from the PRIME project described in the introductory chapter.

3.2 Research Aims

The study set out to find the association between job strain and psychological well-being within NHI pilot clinics.

3.3 Research Objectives

1) To investigate the relationship between job strain and psychological well-being.

2) To investigate the relationship between job demands and psychological well-being.

3) To investigate the relationship between decision latitude and psychological well-being.

4) To investigate the relationship between self-efficacy and psychological well-being.

5). To explore the predictors of psychological wellbeing.

3.4 Research Questions

1) What is the relationship between job strain and psychological well-being?

2) What is the relationship between psychological job demands and psychological well-being?

3) What is the relationship between decision latitude and psychological well-being?

4) What is the relationship between self-efficacy and psychological well-being?

5). What are the predictors of psychological wellbeing?

3.5 Study Site

The study site is in the North West province of South Africa, specifically the Kenneth Kaunda district; the North West is one of 10 pilot clinics. The population of the district is 696 000. Twenty of the largest clinics out of 39 clinics formed part of the research. The sample population from Dr Kenneth Kaunda was made up of the four sub-districts: Maquassi Hills, Matlosana, Potchefstroom and Ventersdorp. For the Dr Kenneth Kaunda area a sample size of 137 out of a total of 188 nurses who were informed of the study was obtained.

3.6 Research Method and Approach to Study

A quantitative research method was used for this study. Quantitative research can be defined as explaining phenomena by collecting numerical data that are analysed using mathematically based methods (Neuman, 2011). A cross sectional research study design was used. According to Neuman (2011), "cross sectional research can be exploratory, descriptive or explanatory, but is most consistent with a descriptive approach" (p. 44). Given that the current study was to explore the relationship between the constructs, a cross sectional design seemed the most appropriate.

Quantitative research can be used to answer the particular research questions which are concerned with establishing the level of job strain experienced by nurses in the site as well as associations between job strain and psychological well-being. The design proved to be appropriate because it allowed for the relationships between psychological job demands, job decision latitude and self-efficacy on the psychological well-being to be determined amongst

nurses with regard to the NHI pilot. Quantitative research is also useful as it allows one to make generalisations and to gain objectivity (Neuman, 2011). Furthermore, the attainment of objective facts is more likely to have a greater impact in promoting the implementation of recommendations emerging from the study.

3.7 Study Sample

The study was conducted among 137 nurses in NHI pilot clinics. The respondents to the questionnaires of the research were professional nurses within the NHI pilot clinics in the North West. The large sample was necessary to make generalisations and find relationships between job strain, psychological job demands, decision latitude and self-efficacy with psychological well-being. Inclusion criteria were that the respondents had to be professional nurses, nurses working in the NHI control clinic; have received PC 101 training and been a part of the re-engineering process thus far. These requirements were necessary in order for the researcher to get accurate results regarding the relationships between job strain, psychological job demands, decision latitude and self-efficacy on psychological well-being in nurses who were part of the re-engineering of PHC.

3.8 Sampling and Sampling Method

This study made use of non-probability sampling (Neuman, 2011) which is a sampling technique whereby equal chance of being selected is given to all individuals in the sample. There is no random selection involved in sampling individuals. When using this sampling technique, the odds or probability of representing the population are not high, however non-probability was more fitting as participation by the nurses was voluntary.

Purposive sampling is applied when the researcher has chosen specific individuals within the population for use in a particular study (Neuman, 2011). In this study, purposive sampling was used by the researcher because there were criteria for inclusion in the study. The

respondents had to be professional nurses in NHI pilot clinics in the Dr Kenneth Kaunda district. Participation in the study was voluntary; professional nurses from 20 clinics in the Dr Kenneth Kaunda district were recruited from their place of work during the six month data collection period (September 2014 – February 2015). The sample included professional nurses, senior nursing staff such as facility managers, operational managers as well as nurses working as Outreach Team Leaders (OTLs) who formed part of the new PHC Ward Based Outreach Team (WBOT).

3.9 Data Collection

This research used secondary data, meaning that the data had already been collected prior to the beginning of this research. The data had been captured as part of the PRIME project, a programme for improving mental health. The findings of this study provided insights into psychological wellbeing of nurses in the NHI pilot clinics for the PRIME project. Finding out about the relationship between job strain and psychological well-being, would allow for the project to promote mental health and interventions for mental health within the NHI pilot clinics.

In the field, a biographical data sheet and consent form were given to the participants, the researcher told the participants of their rights as respondents and gave them the questionnaire to be completed if they agreed to participate. Data was collected through the use of a self-administered research survey. To make the process easier for respondents to understand what was required of them, the researcher along with research assistants, took everyone through the questionnaire and explained some of the questions that were found to be problematic, given that English was not their first language.

The survey was compiled of several scales that were written in English. However, in cases where participants were unclear of a question, the researcher or research assistants used

simpler terms to explain what was meant. Respondents were recruited from 20 of the largest clinics in Dr Kenneth Kuanda district. The survey was administered in a group setting; however those who were unable to complete the survey at the time that the researcher and her assistants were present, were given the opportunity to take it home and have it collected at a later date.

The nurses were informed of the purpose of the study by either the researcher or the research assistants. The requirements for participation in the study were reiterated as the research was interested in only professional nurses. Voluntary participation was emphasised, and the nurses were informed that they were in no way forced to fill out the survey and could choose not to have their survey used at a later stage. The survey took most of the nurses about 45 minutes to complete; however some of the older nurses took longer and those who took the surveys home, had extra time.

The survey included the following instruments: a consent form (Appendix 1) and biographical questionnaire (Appendix 2) was first administered to the participants. The General Health Questionnaire (GHQ) – 12 item version (Appendix 3). The GHQ-12 was used for measuring psychological well-being and the Job Content Questionnaire (JCQ) was used (Appendix 4). The JCQ was used for the measure of job strain as well as job strain's sub-scales - job demands, job decision latitude. This study made use of the psychological capital questionnaire (PCQ- 24) (Appendix 5) from which only the sub-scale of self-efficacy was used. Whilst the baseline survey was compiled of several questionnaires, not all the questionnaires were used as part of this research.

3.10 Instruments

3.10.1 Job Content Questionnaire

To measure job strain in relation to psychological well-being, the job content questionnaire (JCQ) was used. The sub scales of the JCQ include psychological job demands and job decision latitude which make up job strain.

The JCQ has been widely used in research both internationally and locally with regard to job strain, psychological job demands (workload) and decision latitude (control) (Nehzat, Huda & Tajuddin, 2014). In a local study by Johnston et al. (2013), psychological job demands obtained a Cronbach's alpha of 0.76 and a Cronbach's alpha of 0.80 for decision latitude which both make up the construct of job strain.

3.10.2 General Health Questionnaire

To measure psychological well-being, the general health questionnaire (GHQ) was used in this research. The GHQ was developed as a screening instrument to assess whether individuals were at risk of having psychiatric disorders (Goldberg, 1978) hence the appropriateness of the questionnaire for this research. According to Jackson (2012) the GHQ can assist in investigating psychological well-being and mental health which is why it was chosen for this particular study. The GHQ was selected as it has rarely been found to be unreliable and ineffective (Jackson, 2012); furthermore, the GHQ had been widely used in research hence the appropriateness of selecting it for this research.

The GHQ has been found to be reliable and valid with a Cronbach's alpha of 0.9 and above (Failde & Ramos, 2000). The GHQ has been widely used in research and in research in South Africa, with a Cronbach's alpha of 0.84 reported by Koen, Van Eeden and Wissing (2011) and 0.89 reported in a study amongst Setswana-speaking adults in the North West province of South Africa (Vosloo, Potgieter, Temane, Ellis, & Khumalo, 2013); the current study was likewise located in the North West province investigating a sample of adult nurses.

3.10.3 Psychological Capital Questionnaire

The psychological capital – 24 questionnaire (PCQ- 24) comprises four sub-scales, each with equal weighting. The PCQ is made up of 4 sub-scales (each with 6 items), which are: self-efficacy, resilience, hope and optimism. The response options range from 1 (strongly disagree) to 6 (strongly agree). This questionnaire has been widely used in research and has shown high reliability. A local study by Simons and Buitendach (2013) which researched a sample of call centre workers reported the PCQ obtaining a Cronbach's alpha of 0.91.

This study made use of the PCQ-24 sub-scale on self-efficacy to investigate the relationship between self-efficacy and psychological well-being. The self-efficacy sub-scale has proven to be reliable, with an international study by Beal, Stavros and Cole (2013) obtaining a Cronbach alpha value of 0.88 on this sub-scale. Simons and Buitendach (2013), in a local study, reported a Cronbach's alpha of 0.87 for self-efficacy. Self-efficacy proved to have the highest reliability scores of all the sub-scales in both studies.

3.11 Data Analysis

Following collection of the data, the data was analysed using the Statistical Programme for Social Sciences (SPSS 22.0). Descriptive statistics were initially conducted on the demographics of the study, as well as the various scales, providing information on the means, standard deviation and shape of the distribution (Pallant, 2013). The research sought to investigate the relationships amongst constructs such as the relationship between job strain and psychological well-being, the relationship between decision latitude and psychological well-being, the relationship between job demands and psychological well-being and the relationship between self-efficacy and psychological well-being.

The Pearson r correlation analysis was used to determine these relationships (Jackson, 2012). For job strain, the psychological job demands sub-scale was divided by the decision latitude

sub-scale; in essence the job strain scale was constructed by computing [(Q19+ Q20)*3+ (15-(Q22+ Q23+ Q26)]+ 2 / [(Q6+ Q10+ (5- Q8)] * 4. The psychological job demands sub-scale was computed by [(Q19+ Q20)*3+ (15-(Q22+ Q23+ Q26)]+ 2. The decision latitude sub-scale was computed by adding skills discretion and decision authority; in essence the decision latitude scale was computed by [Q3+ Q5+ Q7+ Q9+Q11+ (5- Q4)] *2 + [(Q6+ Q10+ (5- Q8)] * 4.

The sub-scale for self-efficacy was attained from the psychological capital questionnaire, this sub-scale was adapted from Parker (1998). The scale for self-efficacy was computed by adding questions 1- 6; in essence the self-efficacy scale was computed with Q1+ Q2+ Q3+ Q4+ Q5+ Q6.

For psychological well-being, the full GHQ-12 was computed; thus Q1+ Q2+ Q3+ Q4+ Q5+ Q6+ Q7+ Q8+ Q9+ Q10+ Q11+ Q12 + Re_GHQ 2 + Re_GHQ 5 +Re_GHQ 6 + Re_GHQ9 + Re_GHQ 10 + Re_GHQ11 made up the total GHQ and the scale for psychological well-being.

The data entry was done with the help of a research assistant who captured the questionnaires after the initial coding and re-coding of variables was done by the researcher. Data was entered into the SPSS program using numerical codes for all variables.

Before commencing with the analysis of the data, the researcher screened the data for errors by running frequencies for all variables to ensure that all values fell within the possible values for each variable. Any errors found were noted and corrected.

From the Pearson r result, the proportion of variance found through the co-efficient of determination was calculated by squaring the r value. Once the results' co-efficient of determination was calculated, Cohen's (1988) guidelines were used in order to determine the

effect size. The practical significance comprised of a small effect from 0.1 to 0.29; a moderate effect from 0.30 to 0.49 and large effect from 0.5 to 1.0. Following the correlational analysis, a multiple regression analysis was conducted of those constructs that had a significant relationship with outcome variable in the correlational analysis.

3.11.1 Coding and Re-Coding of Variables

The details from the biographical data was coded and captured as follows:

Table 1: Coding and Re-Coding of Demographics

Variable	SPSS Variable Name	Coding Instructions
Identification number	ID	Number assigned to each survey
Gender	Gender	1 = Males
		2 = Females
Age	Age	1 = 20-30
		2 = 31-40
		3 = 41-50
		4 = 51-60
		5 = 61+
Marital status	Marital Status	1 = Single
		2 = Married
		3 = Divorced
		4 = Widow
		5 = Remarried
Race	Race	1 = Black
		2 = White
		3 = Coloured
		4 = Indian
		5 = Other
Number of Dependents	NrOfDependents	1 = None
		2 = 1
		3 = 2
		4 = 3
		5 = 3+
Highest qualification obtained	Qualification	1 = Matric

		2 = Diploma in Nursing
		3 = Bachelors Degree in Nursing
		4 = Other
Position in clinic	JobTitle	1 = Nursing Assistant
		2 = Enrolled Nurse
		3 = Professional Nurse
		4 = Facility Manager
Number of years in profession	NrOfYrsProf	1 = Less than 1 year
		2 = 2-5 years
		3 = 6-10 years
		4 = 11-15 years
		5 = 15+

3.12 Ethical Considerations

Ethical clearance had been obtained for this study from the Humanities and Social Sciences ethics committee; the reference number is HSS/05888/015M. The researcher also gained ethical clearance from the Department of Health at North West in order to conduct the research with the nurses in the North West province. Participants were taken through the informed consent form (see Appendix 1). In terms of addressing informed consent, the respondents were informed of all their rights during the research process and the usefulness of the research for themselves and others. Before every interview the nurses were told that their participation was voluntary and they could opt out of the interview if they wanted to.

Confidentiality and privacy of the nurses was also addressed, with participants informed that the findings would be securely stored in a lockable cupboard at UKZN for five years and destroyed thereafter. In terms of privacy and confidentiality, identifying details such as the nurses' names and clinic's name were removed; the data was entered into the SPSS programme with only a participant number. This was done to ensure that should the results be presented in a report to any authorities, they would not be able to identify the participants of the study. Thus ensuring participants' identities are kept anonymous and protected. Participants were also informed that should they have any queries about the research process they could contact the relevant authorities at UKZN, and contact details were provided. Thus

if nurses felt pressured to answer due to the presence of researchers or other nurses, they were able to privately express their concerns or opt out of the study. If participants experienced any stress as result of completing the questionnaire, the nurses were invited to contact the PRIME-SA team who would be willing to provide counseling. Herein the wellbeing of the participants was taken into consideration.

3.13 Chapter Conclusion

This chapter has described the study site. The quantitative research method and the cross sectional design approach to the study were discussed. The chapter included a discussion on the study sample of nurses in pilot clinics in Dr Kenneth Kaunda, Klerksdorp, North West province. Furthermore, the sampling and sampling method was discussed in this chapter, as well as a discussion on how the data collection took place. Following the discussion on sampling and the sampling method, the chapter includes a description of the instruments namely the Job Content Questionnaire, General Health Questionnaire and the Psychological Capital Questionnaire. The reliability and validity of these instruments were then discussed, based on previous studies. The chapter also included how the data was analysed. Finally, the chapter discussed ethical considerations with regard to this study.

Chapter 4: Results

4.1 Chapter Introduction

This chapter presents the results that emerged after careful analysis of the data. The analysis that was done was guided by the research questions. The chapter begins with presenting the demographic information of the participant nurses in the NHI pilot clinics, followed by the reliability and validity of the questionnaires used in this current study. This is followed by the Pearson-product moment analysis of correlations between the relevant constructs: job strain, psychological job demands, decision latitude and self-efficacy in relation to psychological well-being.

4.2 Demographic Information

The data was collected from professional nurses (n=137) based in PHC Clinics and Community Health Centres in the Dr Kenneth Kaunda district (n=20). The demographics of the sample are presented in Table 2. The data collected from the biographical data sheet in the survey indicates that from the total nurse sample, 14.6% were male (n=20) and 85.4% (n=117) were female.

The demographics further indicated that the age of the sample ranged from between 20 to over 61. Furthermore, the majority of the nurses were aged between 31-40 age range (n=32) which made up 23.9% of the nurses, followed by the 61 and above age range as the next most frequently reported age group. This group made up 20.9% of the participants.

The smallest number of nurses in the NHI pilot clinics fell within the 51-60 (n = 22); which comprised of 16. 4% of the nurses in the NHI pilot clinics.

Racially, 86.8% (n = 118) of the total population reported their race as Black, 4.4% (n = 6) reported Coloured and 7.3% (n = 10) reported White and a small percentage identified

themselves as ‘other’ 1.5% (n = 2). The analyses showed that there were no Indian nurses within the NHI pilot clinics.

The demographics also included the number of dependents that the nurses had (n = 135). The majority of nurses either had no dependents at 26.7% (n = 36) or similarly the nurses had two dependents at 26.3% (n = 31). Nurses who had one dependent were 22.2% (n = 30), with 15.6% (n = 21) having three dependents and 12.6% (n = 17) having more than three dependents.

In terms of the position of the nurses within the NHI pilot clinics, the majority of the nurses identified themselves as professional nurses, 91.8% (n = 123), whilst 8.2% (n = 11) were facility managers (also professional nurses).

In terms of the nurses’ qualifications, the majority of nurses had a diploma or degree in nursing. The results indicated that the nurses who had diplomas comprised of 70.1% (n = 96), with 22.6% (n = 30) having a bachelor’s degree; making up just over 2/5 of the total number. The nurses who indicated that they had a qualification other than the options given comprised of 5.1% (n = 7). The nurses who had a Matric as their highest qualification made up 2.2% (n = 3) of the nurses within the NHI pilot clinics.

The category of 2-5 years in the profession was the second highest, the analysis indicating that 21.3% (n = 29) of the nurses had 2-5 years’ experience. The analysis further indicated that 12.5% (n = 17) of the nurses in the sample had spent 6-10 years in the nursing profession, with 14.0% (n= 19) having 11-15 years’ experience. With regard to the number of years in the profession, 40.4% (n= 55) of the nurses had spent over 15 years in the profession, thus making up the last category in the sample.

Table 2: Demographic Profile of the Sample

Characteristics	N	%
Gender		
Male	20	14.6
Female	117	85.4
Age Groups		
20 – 30 years	26	19.4
31 – 40 years	32	23.9
41 – 50 years	26	19.4
51 – 60 years	22	16.4
61+ years	28	20.9
Marital Status		
Single	59	43.1
Married	54	39.4
Divorced	6	4.4
Widowed	8	13.1
Remarried	----	-----
Race		
Black	118	86.8
White	10	7.3
Coloured	6	4.4
Indian	---	----
Other	2	1.5
Number of Dependents		
None	31	23.0
1	30	22.2
2	36	26.7
3	21	15.6
4 and above	17	12.6
Highest Qualification		
Matric	3	2.2
Diploma in Nursing	96	70.1
Bachelor Degree in Nursing	31	22.6
Other	7	5.1
Position in the Clinic		
Professional nurse	123	91.8
Facility Manager	11	8.2
Number of years in profession		
Less or equal to 1 year	16	11.8
2 - 5 years	29	21.3
6-10 years	17	12.5
11- 15 years	19	14.0
16 + years	55	40.4

4.3 Reliability and Validity

The Cronbach's alpha co-efficient indicates the internal consistency of a scale. According to Pallant (2013), the Cronbach alpha co-efficient should be between .5 and .7 in order to indicate that the scale is reliable (Neuman, 2011); the closer that the value is to 1, the higher the reliability estimate of the instrument.

The Cronbach Alpha for the JCQ for was .768; thus the scale was reliable and valid for use in this study. This study made use of the sub-scales of the JCQ, namely psychological job demands had a Cronbach's alpha of .556; for decision latitude the sub-scale presented a Cronbach's alpha of .790. The Cronbach Alpha of the sub-scale for job strain was .655. Therefore all the scales were reliable and valid for use in this study.

For the full GHQ, the Cronbach's Alpha was .869 thus also indicating that this scale was reliable and valid for use in this study.

The psychological capital questionnaire presented a Cronbach's alpha co-efficient of .867 which is above the ideal value of 0.7 thus indicating that the PsyCap Questionnaire is reliable, therefore making it a valid instrument for use in this study. The Cronbach's alpha for the psychological capital sub-scale of self-efficacy was .808; thus indicating that the scale was reliable for use in this study.

Table 3: Reliability Co-efficient for the Scales

Variable	Cronbach's Alpha
Job Content Questionnaire	0.768
Psychological job demands	0.556
Decision latitude	0.790
Job strain	0.655
General Health Questionnaire	0.869

Psychological Capital	0.867
Self-efficacy	0.808

4.4 Descriptive Statistics of Measures

The means and standard deviations for the scales and sub-scales that were used in the study were presented as follows. The JCQ presented a mean of 94.84 and a standard deviation of 12.921. The decision latitude sub-scale presented a mean of 29.33 and a standard deviation of 4.171. The psychological job demands sub-scale presented a mean of 25.63 and a standard deviation of 5.742. For job strain, the mean was 46. 47 with a standard deviation of 6.458. The GHQ had a mean of 23.89 and a standard deviation of 6.977. The mean of the scale for psychological capital was 106.83 and a standard deviation of 14.670. In addition, the self-efficacy sub-scale presented a mean of 28.20 and a standard deviation of 5.041.

4.5 Job Strain Results

To obtain an indication of the levels of job strain experienced in NHI pilot clinics, one would be able to use a quotient method. This meant that psychological job demands would be multiplied by two in order to equate both scale ranges (Kawakami, Kobayashi, Araki, Haratani, & Furui, 1995). This would then be divided by decision latitude. A range score greater than or equal to 1 indicated job strain (Schnall, 2004). A score less than 1 is indicative of no job strain (Kawakami et al., 1995).

Having computed job strain using the quotient method, the result for the NHI pilot clinic was .76. This result is less than 1 which is indicative of no job strain. Therefore, nurses within the NHI pilot clinics were not experiencing job strain at the time of the study. The result is .76 which is quite close to 1; thus it may be advisable for authorities to put in place measures not to increase job strain so as to prevent the scores from going above 1.

4.6 Psychological Well-being

With regard to the GHQ, scores greater than 20 are considered to be indicative of severe problems and psychological disorders; scores greater than 15 are indicative of distress, whilst scores between 11 and 12 are considered to be typical (Zulkefly & Baharudin, 2010). The data was attained from a population of 137 nurses within NHI pilot clinics. The GHQ indicated that 20 respondents had severe problems and psychological distress; with one respondent attaining the maximum score on the GHQ. The score from the 20 respondents indicated that 15.83% of the nurses in the NHI pilot clinics were experiencing severe problems and psychological distress.

The data also indicated that 18 nurses were experiencing distress (a score of above 15); in essence this indicated that 14.83% of the nurses in the NHI pilot clinics were experiencing distress. 13 of the respondents having indicated typical amounts of distress (scores between 11 and 12); in essence 9.35% of the nurses were experiencing normal amounts of distress. Sixty-eight of the participants were below the typical category, thus 48.92% of the nurses in the NHI pilot clinics were not experiencing any distress or severe problems at the time of the study.

4.7 Correlations among Study Variables

According to Zulkefly and Baharudin (2010), higher scores on the GHQ indicate poorer psychological states and lower scores indicate healthier psychological states. This study made use of the Pearson product moment correlation coefficient analysis to investigate the relationship between the various constructs: job strain, psychological job demands, decision latitude and self-efficacy in relation to psychological well-being – see results in Table 4 below.

Table 4: Association between Psychological Well-being and Other Variables

	Variables	1	2	3	4
1	Total GHQ	1	–	–	–
2	Job strain	.300**	1	–	–
3	Psychological job demands	.285**	.916**	1	–
4	Decision latitude	-.074	-.331**	.058	1
5	Self-efficacy	-.230**	-.228**	-.159	.181*

*$p < 0.05$, **$p < 0.01$

4.7.1 The relationship between job strain and psychological well-being

With regard to the relationship between job strain and psychological well-being, the results showed a significant moderate positive correlation, r (131) = .300, $p < 0.01$ which indicated that increasing job strain is associated with higher scores in the GHQ. This is indicative of lower levels of psychological well-being.

4.7.2 The relationship between psychological job demands and psychological well-being

The analysis shows that with respect to the relationship between psychological job demands and psychological well-being of nurses, there is a significant but weak, positive correlation, r (133) = .285, $p < 0.01$ with high levels of job demands being associated with a higher score on the GHQ. This is indicative of poorer psychological well-being.

4.7.3 The relationship between self-efficacy and psychological well-being

With respect to the relationship between self-efficacy and psychological well-being of nurses, the results showed a significant but weak negative correlation between self-efficacy and psychological well-being, r (129) = -0.230, $p < 0.01$ which indicates that a higher score of self- efficacy is associated with lower scores on the GHQ. This indicates higher levels of psychological well-being.

4.8 Predictors of psychological well-being

Simultaneous multiple regressions were conducted to determine which variables acted as predictors of psychological well-being. Only constructs that had a significant relationship with outcome variables in the correlational analysis were entered into the regression models. The results, presented in Table 5, showed that the regression model accounted for 11.4% of the variance in psychological well-being, $F(3, 123) = 5.25$; $p < 0.01$, Adjusted $R^2 = 0.114$. Only self-efficacy ($\beta = -.175$; $t = 1.980$; $p < 0.05$) made a unique predictive contribution to psychological well-being.

Table 5: Multiple Regression Analyses for Predictors of Psychological Well-Being

Model	*B*	*SE B*	*β*	t	95% CI (*B*)
Job strain	21.302	33.066	.138	.644	.020 – .125
Psychological job demands	.287	.509	.119	.563	.721 – 1.295
Self-efficacy	-.381	.192	-.175	-1.980*	- .762 – .-012
Adjusted R^2		0.114			
F		5.25**			

*$p < .05$; **$p < .01$

Note: *B* = Unstandardised coefficient beta; *SE B* = Standard error of *B*; β = Standardised coefficients beta; 95%CI = 95% Confidence Interval for the *B*.

4.9 Chapter Conclusion

This chapter presented the results concerning demographic information, which found that majority of the nurses in the NHI pilot clinics were black, female professional nurses, aged between 31-40 years, of which the majority had attained a diploma and worked within the NHI pilot clinics for over 15 years. Additionally, the chapter presented the reliability and validity of the scales and sub-scales used in this study which proved that all were reliable and valid for use. From the descriptive results and correlations, it can therefore be concluded that nurses were not experiencing job strain or low levels of psychological well-being; however,

the relationships with psychological well-being indicate that job strain and psychological job demands would result in a decrease in psychological well-being. Furthermore, an increase in decision latitude and self-efficacy would result in an increase in psychological well-being, with self-efficacy making a unique predictive contribution to psychological well-being.

Chapter 5: Discussion, Limitations, Recommendations and Contributions of the Study

5.1 Introduction

This study set out to investigate the association between job strain and psychological well-being of nurses in a sample of NHI pilot clinics. In the previous chapter, results from the statistical analysis were presented. This chapter seeks to discuss the results that were obtained from this study in relation to the research questions and existing literature. There were a number of interesting results; although tentative, it is hoped that the contribution of these results will emphasise the need for mental health promotion interventions for nurses in the NHI pilot clinics. In this chapter, the limitations of the study, recommendations for future research as well as the contributions of this study will also be discussed.

5.2 Demographics

This study's sample was made up of professional nurses and facility managers according to its objective of researching only professional nurses in the NHI pilot clinics. Of these professional nurses and facility managers, the majority were female. This could be expected as according to Ditlopo, Blaauw, Penn-Kekana and Rispel (2014), the nursing profession consists of more females than males. This study found that the majority of the nurses were aged between 31 and 40 and the second highest age group was age 61 years and above. This last figure is particularly significant as it is above the retirement age of female nurses. According to the literature, the use of retired nurses is both beneficial and a deterrent; a local study by Mokoka, Oosthuizen and Ehlers (2010), the use of nurses who are post retirement age can alleviate the shortage of nurses; however fellow nurses felt that they were not as productive. According to Springer, Pudrovska and Hauser (2011), psychological well-being decreases from midlife to old age which may be a reason for nurses experiencing a decrease

in psychological well-being in addition to an increase in job strain and psychological job demands.

The majority of the nurses in the NHI pilot clinics had spent 15 years in the nursing profession which correlates with the findings that a large number of nurses were older than 30 years of age. These findings indicate that a large number of nurses in the sample were experienced. Nurses with one year in the nursing profession had the least amount of respondents. This may be problematic as there is a shortage of nurses for the re-engineering of primary health care (Rispel & Barron, 2012). Hence when the elderly nurses retire, there may not be enough new or younger nurses to sustain the growing number of patients needing health care services.

5.3 Levels of Job Strain

The results of this study indicated that nurses were not experiencing high levels of job strain. Previous studies have found that nurses do experience high levels of job strain (Beh & Loo, 2012). According to Fogel and Woods (2008), female nurses are expected to provide ‘emotional labour’; in other words, female nurses are expected to put their own emotions aside to deal with those of their patients. A possible explanation for the findings that nurses in the NHI pilot clinics do not display high job strain could be that they have become accustomed to denying any negative responses towards their jobs in order to be positive for the patients and this may have influenced their responses in the questionnaire.

Although the results in this study do not prove that nurses are experiencing high levels of job strain, the results are above average, therefore the result still remains a cause for concern. Should the supposition that nurses were denying negative feelings in their responses be correct, an additional cause for concern could be that nurses may be more prone to burnout

through dulled emotions used as a defense against negative situations (Fogel & Woods, 2008).

5.4 Levels of Psychological Well-Being

The majority of the nurses within the NHI pilot clinics fell below the typical distress category. This means that at the time that this study was conducted, the majority of nurses were not experiencing psychological distress. This result was not expected, considering the changes and added workload that nurses face daily. Similar findings have, however, been found by Awuku (2013) in a Namibian study where although stress was high among nurses, the results indicated that nurses were still experiencing high levels of psychological well-being. Similarly, in a study by Arafa, Nazel, Ibrahim and Attia (2003), only 21.6% of the nurses demonstrated moderate to severe psychological symptoms.

It is important to consider that the results may not be a true reflection of the psychological distress that nurses face within the NHI pilot clinics. According to Bakker and Leiter (2010) individuals do not always perceive stress as negative; therefore it is difficult to understand whether their levels of stress are causing any psychological problems. Individuals may also be afraid to acknowledge any psychological problems because of the negative stigma attached to mental health. Additionally, the results may be due to a lack of understanding of English, as many of the nurses' home language is not English. Furthermore, the nurses may be afraid to answer truthfully because they believe that the Department of Health will see the results.

5.5 Job Strain, Psychological Job Demands and Decision Latitude

This study investigated the association between job strain and psychological well-being locally, amongst nurses in the NHI pilot clinics. Job strain occurs when job demands are high and job decision latitude is low (De Lange et al., 2008). This study found that an increase in

job strain was associated with a decrease in psychological well-being. The relationship between job strain and psychological well-being indicated a significant moderate positive correlation between job strain and psychological well-being, which indicated that increasing job strain is associated with higher scores in the GHQ, which are indicative of lower levels of psychological well-being.

The importance of considering job strain lies in the threat that job strain can lead to nurses' absenteeism or high turnover of nurses (Pillay & Barron, 2012; Saloojee, 2011). Both these consequences are not desirable for South Africa in the context of a shortage of health professionals (Saloojee, 2011) and the need for nurse health to be optimal for the provision of quality care.

The nursing profession is plagued by a lack of resources, shortage of staff, and little space coupled with a high workload which contributes to increasing levels of job strain (Rispel & Barron, 2012). High psychological job demands can also take its toll on nurses. Nurses work long hours as some of the NHI pilot clinics are open 24 hours, with many nurses working longer than their shift requires (Saloojee, 2011). Consequently, this leaves little time for the nurses to recover, further contributing negatively to nurses' psychological well-being.

According to Thomas (1997), mental health problems correlate with an increase in workload, understaffing and change within an organisation. The NHI pilot clinics have been associated with an increased workload, understaffing and change such as the re-engineering of primary health care (Rispel & Barron, 2012). Therefore, it seems likely these conditions may increase the likelihood of nurses having mental health problems such as depression within the NHI pilot clinics.

A potential threat of poor mental health on the re-engineering process and NHI may be higher absenteeism and turnover amongst nurses coupled with lowered job commitment and

engagement which has been found to be associated with poor mental health in the workplace (Hassard et al., 2011). This may jeopardise the success of the NHI pilot clinics as well as the NHI in future, as quality of care provided may be compromised. In particular, nurses may be less likely to want to deal with the mental health of patients when they too are experiencing poor mental health (Guthrie et al., 2009; Parker, 2014), which may compromise efforts to integrate mental health into primary health care as contained in the new Mental Health Policy Framework and Action Plan (2013-2020) (Stein, 2014).

In addition, of concern is that should the levels of job strain continue to increase, and psychological well-being of the nurses decrease, turnover of staff may increase. Turnover of nurses is already problematic in South Africa, as highlighted by Rispel and Barron (2012), and is particularly problematic at such a crucial point in the history of South African health care policy reform, given the need for continuous training of new staff in innovations being introduced.

The findings of this study suggest that there should be more attention paid to the psychological well-being of nurses by the Department of Health, with caring for the caregiver being vital for the success of NHI. Thus, mental health promotion and interventions in the NHI pilot sites to help nurses to cope with increased demands and reduce levels of job strain are indicated (De Milt, Fitzpatrick, & McNulty, 2011).

The Job Demand Control model posited that high job demands and low control would result in high levels of job strain (Karasek, 1979). The results of the current study indicate a weak, positive correlation between psychological job demands and psychological well-being. According to De Lange et al. (2008), high demands result in long working hours, which leaves little time for recovery and sleep which can cause job strain. This is problematic as changes in work environment can affect nurses' psychological well-being and lead to

sickness absences. According to Verhaeghe, Vlerick, Gemmel, Van Maele and De Backer (2006), changes in the work environment can affect nurses' psychological well-being; this is relevant as primary health care is undergoing a transformational change.

In terms of decision latitude, the literature suggests that nurses know little of the re-engineering occurring in NHI pilot clinics; furthermore, nurses have little control over how their day will unfold (Rispel & Barron, 2012). According to Ryff and Singer (1996), autonomy and the ability to create an environment suitable for one's psychic conditions underpins psychological well-being. The relationship between decision latitude and psychological well-being, although not significant, was in the direction of a relationship between levels of decision latitude and increased psychological well-being. Greater autonomy and control on the part of nurses within the NHI pilot clinics may potentially assist to improve psychological well-being which may in turn assist with reducing the turnover of nurses. In this respect, it may be appropriate to consider "active jobs" (which can be referred to as jobs with high job demands as well as high decision latitude) within the NHI pilot clinics.

According to Karasek (1979), it is with "active jobs" that workers have been found to be most satisfied. In essence, because of high job demands, there should be an increase in "active jobs" and associated decision latitude. This should assist with improving the psychological well-being of nurses in the NHI pilot clinics as suggested by Karasek's (1979) job strain model. Although added job demands have been prescriptive in the re-engineering of primary health care and the NHI, according to the Job Demand Control model, if a job is "active" (comprising high job demands and high decision latitude) workers are more likely to persevere and nurses would be less likely to experience stress and psychological problems. Therefore, based on previous studies, the current study has suggested that it would be

important to consider active jobs that increase the decision latitude of nurses within the NHI pilot clinics.

Therefore, in order to improve psychological well-being of nurses, this study does not suggest a reduction in job demands in the NHI pilot clinics but rather proposes authorities consider an increase in decision latitude. This should assist to reduce job strain and increase psychological well-being. This suggestion had been substantiated by previous research which found that high levels of decision latitude, even when associated with high job demands, will find satisfied workers (Karasek, 1979). Furthermore, high decision latitude will add to employees' sense of efficacy in their work and the ability to deal with challenges more effectively (Karasek, 1979).

5.6 Self-efficacy

The results of this study also found that an increase in self-efficacy was associated with an increase in psychological well-being. As suggested by the Broaden and Build theory, despite hindrances in NHI pilot clinics, nurses who feel more confident in relation to their assigned tasks, experience less stress and cope better psychologically (Fredrickson, 2001).

Furthermore, self-efficacy was useful for this study as a high level of self-efficacy is a means to decrease cynicism of nurses and increase organisational commitment at a time such as the re-engineering of primary health care where there are added stressors on nurses in NHI pilot clinics. The assertion above has been substantiated by Bandura and Locke (2003) who posited that workers with low levels of self-efficacy display greater cynicism and less organisational commitment.

Recommendations to improve psychological well-being:

1. Following the Broaden and Build theory which posits that feeling appreciated, praised and recognised will increase individuals' positive emotions (Fredrickson, 2001),

improved recognition of the important role played by nurses within the health care system may help to increase nurse retention and psychological well-being. This can be achieved by authorities providing feedback to nurses and consulting with the nurses one on one. One on one consultation may be effective as it provides the opportunity for nurses to feel that their opinions have been heard. Nurses have suggested that gaining recognition and praise would be helpful for improving positive feelings towards their work (Rispel & Barron, 2012). It may be helpful to use the Employee Assistance Programmes by having workshops each month on how better to cope with stress and to enhance their self-efficacy. The PRIME projects initiatives may help the nurses to cope with stress, burnout and job strain; in doing so, the nurses are likely to feel that they are appreciated and recognised. All the above suggestions have been provided as ideas in order to help increase retention and psychological well-being of nurses in the NHI pilot clinics.

2. As suggested by the JDC model, greater decision latitude has been associated with increased psychological well-being (Wissing, Wissing, Du Toit, & Temane, 2006). In this case giving nurses greater decision latitude may help enhance positive emotions and in turn, increase psychological well-being of nurses in the NHI pilot clinics (Johnston et al., 2013). The programme by Wilson, David and Voce, (2015) which seeks to strengthen leadership at a district level provides an example of how this could be initiated. This programme adopts a bottom-up approach and more collaborative approach to leadership which should assist to increase the decision latitude of nurses. According to a participant in the programme, “Before WEL (Wellness for effective leadership) I was stressed and had lots of tension and was thinking of leaving the Department. Nursing had become boring and I could see no future for myself in it. Now I can see the way. I have regained my passion. I plan my work and am purpose-

driven. My eyes are open and I have a vision, a future. KZN 2014" (Wilson et al., 2015, p. 134).

3. According to Van der Colff and Rothmann (2009), nursing is an emotionally draining profession. Consequently, given the increased demands being placed on nurses, especially with task sharing, a useful intervention would be to ensure that nurses are equipped with the necessary skills, competencies and support to carry out their additional responsibilities which should assist to strengthen nurses' sense of self-efficacy. While there are a number of capacity building interventions for nurses, e.g., PC 101 training, the findings of this study suggest that many nurses do not have a strong sense of self-efficacy in their jobs, indicating the need for greater attention to be paid to capacity building and supportive mentoring interventions to assist nurses to implement their expanded roles competently. This is particularly important considering that added workloads and working hours are a source of nurses' job strain in the NHI pilot clinics. Improved self-efficacy as a result of improved internal capabilities may result in nurses having less of a need for appraisal or support from others which is often not given, and more inner confidence to deal with job challenges (Nafei, 2015). This may serve to help moderate an increase in job strain (Santos et al. 2014), which may have a positive impact on reducing nurse turnover as organisational commitment has been found to be relatively high for individuals with high levels of self-efficacy (Nafei, 2015). These recommendations are in line with those of Santos et al. (2014) and Wilson et al. (2015).
4. Lastly, the need for mental health promotion interventions, such as stress management, debriefing and employee assistance programmes to help nurses deal with their own psychological problems, should also be considered to help nurses cope with the high job demands that they shoulder.

5.7 Predictors of Psychological wellbeing

Investigating the predictors of psychological well-being using multiple regression analysis found that self-efficacy made the only unique positive contribution to psychological well-being. This result is not uncommon in the literature as can be seen from the results of Dogan, Totan and Sapmaz (2013). Additionally, a study by Salami (2010) found that self-efficacy can moderate psychological well-being. Thus, although individuals may be experiencing psychological distress, experiencing high self-efficacy will allow for individuals to remain intrinsically motivated, self-disciplined and possess the appropriate attitude for success.

Therefore, it would be beneficial to increase the self-efficacy of nurses because they will be more willing, flexible, efficient, intrinsically motivated, self-controlled along with having increased respect and appreciation for others. This is particularly useful in the NHI pilot clinics where nurses have complained about feeling unappreciated and unsupported by authorities. If the morale is high in the NHI pilot clinics and nurses support one another, this will assist in decreasing feelings of demoralisation in the NHI pilot clinics.

5.8 Limitations of the Study

Due to the use of existing data, the researcher was unable to add any additional questionnaires as the cross sectional survey had already been compiled and administered. The baseline survey already consisted of several questionnaires. This limited the associations that could be investigated. For example, it would have been interesting to have investigated the association between psychological well-being and social support.

In addition, due to nurses having little time to answer the baseline survey, the nurses may have haphazardly responded to the questionnaires simply to get it ‘over and done with’ and therefore, some of the results may not be a clear indication of how the nurses were feeling or what they were experiencing. It is also important to consider that many of the nurses’ first

language was not English. Although the researcher and research assistants were readily available to assist with interpreting some difficult terms, the nurses may not have fully understood what was being asked of them from the questionnaire.

Additionally, the field workers had to interpret and explain the questions to the participants; this was limiting in that the field workers were not fluent in Setswana. Therefore, the field workers were unable to communicate in the first language of majority of the nurses; thus limiting the capture of accurate responses.

Restricting the study to quantitative measures also made it difficult to investigate the lived experiences of the nurses in the NHI pilot clinics. The use of qualitative interviews would have assisted to gain thick descriptions from the nurses with regard to how they were feeling, the nurses' perceptions of their psychological well-being and their current lived experiences of job strain, psychological job demands, decision latitude and self-efficacy.

5.9 Recommendations for Future Research

It would be worthwhile to consider an investigation of the relationship between social support and job demand resources with psychological well-being.

In addition, the quantitative data used in this study, qualitative interviews would be useful to investigate lived experiences of job strain, psychological job demands, decision latitude and self-efficacy.

5.10 Contributions of the Study

The results indicated that there is an association between job strain and psychological well-being. Recommendations of this study include interventions to enhance decision latitude and self-efficacy of the nurses which may enhance psychological well-being of nurses in the NHI pilot clinics. In addition, mental health promotion interventions to assist nurses to cope with the stressors of the high demands placed on them are also recommended.

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Appendices

Appendix 1 Consent Form

Appendix 2 Biographical Questionnaire

Appendix 3 General Health Questionnaire – 12

Appendix 4 Job Content Questionnaire – 33

Appendix 5 Psychological Capital

Appendix 1: Consent Form

INSTRUCTIONS

Dear Research Participant, you are requested to answer the questionnaires in this booklet. You will also need to sign an indemnity form to show that you consent to this study. Please answer all the questions.

Your participation is much appreciated.

Dear Research Participant

I am a researcher working with the PRIME (Programme for Improving Mental Health Care) project at the University of KwaZulu Natal in Durban, South Africa. The Principal Investigator of this project is Professor Inge Petersen. Her details are listed below. The PRIME-SA project is funded by the Department of International Development (DFID) in the United Kingdom and the current study is jointly funded by PRIME and the National Research Foundation.

The current study is interested in the psychological capital, job strain, job satisfaction, burnout and well-being of nurses working in the North West. This baseline survey aims to evaluate the training you will receive from the ReMmogo Training. After the initial training, the survey will be administered again in 12 months to assess whether the training was successful and helpful in orienting nurses towards the changes occurring in the healthcare system.

What is the purpose of the study?

The overall aim of the research is to understand the well-being of nurses in the context of the re-engineered PHC system and the NHI. The aims of the research are approached from a mixed methodology with corresponding objectives. **The first objective** is researched from a qualitative perspective. To develop an understanding of the experiences and perceptions of nurses with regards to their well-being, job satisfaction, job strain and burnout, as well as their perception and understanding of the re-engineered PHC system and the NHI. **Secondly, the researcher aims to** determine the relationship between PsyCap, Job Satisfaction, Burnout, Job Strain and Well-being amongst nurses quantitatively through the use of this baseline survey in an attempt to evaluate their response to the changes happening in the healthcare system. In addition, the baseline survey also attempts to measure levels of stress and well-being of nurses who have undergone PC101+ training.

Who are we asking to participate?

All registered professional nurses working in Primary Health Care facilities in the North West are eligible to participate. The study will be conducted during January 2014 – January 2015. We would like to recruit approximately 200 nurses working within Primary Health care facilities.

What will it mean if you participate in this study?

If you agree to participate in the study, you will receive a booklet made up of several questionnaires

that we would like you to answer. These questionnaires focus on assessing your level of well-being as well as how you experience job strain and burnout in your current vocation. It will also assess level of stress you experience and the resources you employ to cope with stress and burnout. For your participation in both the ReMmogo Workshop and the Baseline Survey, you will receive a small thank you gift. In order for you to receive your gift, you need to complete the baseline survey, the ACIC and the ReMmogo Workshop. Your participation is likely to help generate knowledge and greater understanding on the well-being, job satisfaction and burnout of nurses in South Africa with relation to their psychological capital and job strain. Your knowledge will be used to help researchers develop programs and interventions focused on fulfilling the current well-being needs of nurses in South Africa.

Will my information remain confidential?

Yes. Should you agree to take part in the study, all your records will be seen by the study researchers only. Information and results of the study that are shared with other researchers will not contain any identifiable (personal) information such as names or contact details. Every effort will be made to keep your information confidential.

The possibility also exists that, despite the absence of identifying data, the clinic could be identified as one of the research sites due to a process of deduction from the public information about the PRIME project. This does not mean that you yourself will be identified but that the aggregate data from the study may be linked back to your clinic.

Do I have to participate in this study?

Your participation will be voluntary and your identity will be protected throughout the research. Anonymity will be ensured by omitting any identifying characteristic, such as your name, or department.

How will we report this research?

We will report our results and other aspects of the study in scholarly journals, conferences and to the Department of Health via policy briefs and other reporting structures.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number HSS/1074/013D) and the North West Department of Health.

In the event of any problems or concerns/questions you may contact:

For questions related to the study	For Your rights as a research participant
Researcher: Ruwayda Petrus Tel: 27 31 260 2261 Email: petrus@ukzn.ac.za **Research Supervisors:** Professor Inge Petersen Tel: 27 31 260 7970 Email: Peterseni@ukzn.ac.za	**RESEARCH OFFICE** Miss Phumelele Ximba KwaZulu-Natal, SOUTH AFRICA Tel: 27 31 360 3587 Email: ximba@ukzn.ac.za

I……(Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project. I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT…….. DATE……

Consent form for participation in the study titled: "Positive Psychological Resources amongst nurses in the NHI:Pilot.

Please complete this form after you have been through the information sheet and understand what your participation in this study entails.

Thank you for considering taking part in this study. If you have any questions arising from the information sheet, please ask before you decide whether to take part. You will be given a copy of the information sheet and consent form.

I, (write your name here), _____ have been informed about the Study.

I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without any negative consequences.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions or concerns or queries related to the study or my rights as a research participant, I understand that I may contact

For questions related to the study	For Your rights as a research participant
Researcher: Ruwayda Petrus Tel: 27 31 260 2261 Email: petrus@ukzn.ac.za **Research Supervisors:** Professor Inge Petersen Tel: 27 31 260 7970 Email: Peterseni@ukzn.ac.za	**RESEARCH OFFICE** Miss Phumelele Ximba KwaZulu-Natal, SOUTH AFRICA Tel: 27 31 360 3587 Email: ximba@ukzn.ac.za

Please tick
or initial

I understand that if I decide at any time during the study that I no longer want to take part, I can notify the researchers and withdraw without having to give a reason. ☐

I consent to the processing of my personal information for the purposes explained to me. ☐

I agree that the research team may use my data (information) for future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. In such cases, as with this project, my identity would not be identifiable in any report. ☐

I consent to the research team contacting me via an agreed method such as telephone, home-visit or any other agreed method for follow-up interviews ☐

_____ _____

Signature of Participant **Date**

_____ _____

Signature of Witness **Date**

(Where applicable)

_____ _____

Signature of Translator **Date**

(Where applicable)

Appendix 2: Biographical Questionnaire

BIOGRAPHICAL DATA SHEET

INSTRUCTIONS: (Please answer the following questions by circling the applicable box)

Gender

MALE	1
FEMALE	2

Age Group

20 - 30	31 - 40	41 - 50	51 - 60	61+
1	2	3	4	5

Marital Status

Single	Married	Divorced	Widow	Remarried
1	2	3	4	5

Race

Black	White	Coloured	Indian	Other
1	2	3	4	5

Number of Dependents

None	1	2	3	3+
1	2	3	4	5

Highest Qualification Obtained

Matric	Diploma in Nursing	Bachelor's Degree in Nursing	Other
1	2	3	4

Please indicate your position in the Clinic:

Nursing Assistant	Enrolled Nurse	Professional Nurse	Facility Manager
1	2	3	4

Number of years in the profession:

Less than 1 year	2-5 years	6-10 years	11-15 years	15+
1	2	3	4	5

Name of Clinic: _____

Appendix 3: General Health Questionnaire – 12

We would like to know if you have had any medical complains, and how your health has been in general, over the past few weeks. Please answer ALL the questions simply by circling the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those you had in the past. It is important that you try to answer ALL the questions.

Have you recently:	1	2	3	4
1. Been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2. Lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3. Felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4. Felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
5. Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. Felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. Been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

8. Been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less able
9. Been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10. Been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11. Been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12. Been feeling reasonably happy, all things considered?	More so than usual	About same as usual	Lee so than usual	Much less than usual

Appendix 4: Job Content Questionnaire – 33

JOB STRAIN

People in the helping profession experience high levels of job strain when the have little to no control over their daily activities. Job strain has been defined as occurring when the demands place on the worker is high and their decision latitude is low. Please answer the following questionnaire which helps to determine the levels of job strain and job satisfaction you experience in your current role.

Job Content Questionnaire

Instructions: The following questionnaire assesses the level of job strain you experience in your daily duties. There are 24 questions on this page. Please read each statement carefully and indicate whether you agree or disagree with a statement by crossing out (x) the appropriate number.

Section One: Skill Discretion, Decision Authority, Psychological Workload and Physical Exertion

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. My job requires that I learn new things	1	2	3	4
2. My job involves a lot of repetitive work	1	2	3	4
3. My job requires me to be creative	1	2	3	4
4. My job allows me to make a lot of decisions on my own	1	2	3	4
5. My job requires a high level of skill	1	2	3	4
6. On my job, I am given a lot of freedom to decide how I do my work	1	2	3	4
7. I get to do a variety of things on my job	1	2	3	4
8. I have a lot to say about what happens on my job	1	2	3	4
9. I have an opportunity to develop my own special abilities	1	2	3	4

10. My job requires working very fast	1	2	3	4
11. My job requires working very hard	1	2	3	4
12. My job requires lots of physical effort	1	2	3	4
13. I am not asked to do an excessive amount of work	1	2	3	4
14. I have enough time to get the job done	1	2	3	4
15. I am free from conflicting demands others make	1	2	3	4

Section Two: Job Satisfaction/Dissatisfaction

16. How satisfied are you with your job?

Not at All	Not Too	Somewhat	Very
1	2	3	4

17. Would you advise a friend to take this job?

Advise Against	Have Doubts About It	Strongly Recommend
1	2	3

18. Would you take this job again?

Take without hesitation	Have second thoughts	Definitely not
1	2	3

19. How likely is it that you will find a new job in the next year?

Very likely	Somewhat	Not at all
1	2	3

20. Is this job like what you wanted when you applied for it?

Very much	Somewhat like	Not very much like
1	2	3

Section Three: Physical/Psychosomatic Strain

During the past 12 months, have you experienced the following?

21. How often do you become tired in a very short period of time?

Often	Sometimes	Rarely	Never
1	2	3	4

22. Do you have trouble with sweaty hands which feel damp and clammy?

Often	Sometimes	Rarely	Never
1	2	3	4

23. Do you have trouble with feeling nervous, fidgety or tense?

Often	Sometimes	Rarely	Never
1	2	3	4

24. Do you have trouble with poor appetite?

Often	Sometimes	Rarely	Never
1	2	3	4

25. Do you have trouble staying asleep?

Often	Sometimes	Rarely	Never
1	2	3	4

Section Four: Depression/Life Dissatisfaction

Please mark which of the words best describe your life. If your life is somewhere in between, please mark the correct box.

26. Is your life:

Boring						Interesting
1	2	3	4	5	6	7

27. Is your life:

Enjoyable						Miserable
1	2	3	4	5	6	7

28. Is your life:

Worthwhile						Useless
1	2	3	4	5	6	7

29. Is your life:

Friendly						Lonely
1	2	3	4	5	6	7

30. Is your life:

Full						Empty
1	2	3	4	5	6	7

31. Is your life:

Hopeful						Discouraging
1	2	3	4	5	6	7

32. Is your life:

Rewarding						Disappointing
1	2	3	4	5	6	7

33. Your life:

Brings out the best in you						Doesn't give you much chance
1	2	3	4	5	6	7

Appendix 5: Psychological Capital

Positive Psychological Resources

Positive Psychology is the scientific study of the strengths and virtues that enable individuals and communities to thrive. Positive psychological resources are based on positive organizational behaviour and include psychological states that go beyond human and social capital and focus more on "who you are". The following questionnaire assesses your levels of hope, efficacy, resilience and optimism. **PSYCAP QUESTIONNAIRE**

Instruction: Below are statements that describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement. (1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6= strongly agree)

		Strongly disagree	Disagree	Somewhat disagree	Somewhat Agree	Agree	Strongly agree
1.	I feel confident analysing a long-term problem to find a solution.	1	2	3	4	5	6
2.	I feel confident representing my work area in meetings with management	1	2	3	4	5	6
3.	I feel confident contributing to discussions about the company's strategy.	1	2	3	4	5	6
4.	I feel confident helping to set targets/goals in my work area.	1	2	3	4	5	6
5.	I feel confident contacting people outside the company (e.g. suppliers, customers) to discuss problems.	1	2	3	4	5	6
6.	I feel confident presenting information to a groups of colleagues.	1	2	3	4	5	6
7.	If I should find myself in a jam, I could think of ways to get out of it.	1	2	3	4	5	6
8.	At the present time, I am energetically pursuing my goals	1	2	3	4	5	6
9.	There are lots of ways around any problem that I m facing now	1	2	3	4	5	6

10.	Right now, I see myself as being pretty successful	1	2	3	4	5	6
11.	I can think of many ways to reach my current goals.	1	2	3	4	5	6
12..	At this time, I am meeting the goals that I have set for myself.	1	2	3	4	5	6
13.	When I have a setback at work, I have trouble recovering from it, moving on. ®	1	2	3	4	5	6
14.	I usually manage difficulties one way or another at work.	1	2	3	4	5	6
15.	I can be “on my own”, so to speak, at work if I have to.	1	2	3	4	5	6
16.	I usually take stressful things at work in stride.	1	2	3	4	5	6
17.	I can get through difficult times at work because I’ve experienced difficulty before.	1	2	3	4	5	6
18.	I feel I can handle many things at a time at this job.	1	2	3	4	5	6
19.	When things are uncertain for me at work, I usually expect the best.	1	2	3	4	5	6
20.	If something can go wrong for me work-wise, it will. ®	1	2	3	4	5	6
21.	I always look on the bright side of things regarding my job.	1	2	3	4	5	6
22.	I’m optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6
23.	In this job, things never work out the way I want them to. ®|	1	2	3	4	5	6
24.	I approach this job as if ‘every cloud has a silver lining”.	1	2	3	4	5	6