

# Assessing the dynamics of conflict among nurses in public hospitals

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Dissertation submitted in fulfilment of the requirements for the degree  
*Magister Commercii* in Labour Relations Management at the Potchefstroom  
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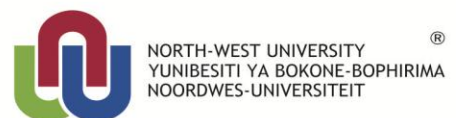
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May 2014

It all starts here <sup>™</sup>



## COMMENTS

The reader is reminded of the following:

- The editorial style as well as the sources referred to in this dissertation followed the format prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA). This practice is in line with the policy of the Programme in Labour Relations Management of the North-West University (Potchefstroom) that all scientific documents must use the APA style as from January 1999.
- The dissertation is submitted in the form of two research articles. The editorial style specified by the South African Journal of Industrial Psychology (which largely agrees with the APA style) is used, but the APA guidelines were followed in constructing tables.

## ACKNOWLEDGEMENTS

Having completed this dissertation I have learnt a great deal about conflict and the nursing profession and I have gained a deeper understanding about research in general. This has been a challenging but life-changing experience and it would not have been possible without the following people to whom I give thanks:

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- My language editor, Cathy Burton, thank you for your comments and for making sure my dissertation is of a professional standard.

## **DECLARATION OF AUTHENTICITY OF RESEARCH**

I, David Ross Milton, hereby declare that “Assessing the dynamics of conflict among nurses in public hospitals” is my own work and that the views and opinions expressed in this work are those of the author and relevant literature references as shown in the references.

I further declare that the content of this research will not be handed in for any other qualification at any other tertiary institution.

**D. R MILTON**

**MAY 2014**

## LANGUAGE EDITOR DECLARATION

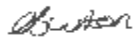
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To Whom It May Concern

This letter serves to confirm that I have proofread and edited the dissertation titled "Assessing the dynamics of conflict among nurses in public hospitals" that will be submitted for the degree *Magister Commercii* in Labour Relations Management at the Potchefstroom Campus of the North-West University by Mr David Milton.

Yours faithfully



Catherine Burton (Ms)

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## ABSTRACT

**Title:** Assessing the dynamics of conflict among nurses in public hospitals.

**Key terms:** Conflict, conflict handling styles, job demands, job resources, nurses.

Nursing in South Africa has become a difficult and stressful profession. Nurses are faced with many challenges on a daily basis, including; heavy workloads, shortages of staff, lack of resources and reduced managerial support (Von Holdt & Murphy, 2007). The demands of their job exceed the resources they have to cope with, which in turn, leads to conflict, which ultimately affects their wellbeing.

The objective of this research is to investigate the most and least employed conflict handling styles of nurses in public hospitals and to investigate the relationship between job demands, job resources and the different conflict handling styles, among nurses in public hospitals. A cross-sectional survey design was used. A convenience sample of nursing staff ( $N=205$ ) was taken from three different public hospitals on the West Rand area in the Gauteng province. The following scales were used in this study: Rahim's Organisational Conflict Inventory (ROCI-II) and a self-developed job characteristics questionnaire.

Descriptive statistics, Cronbach Alpha Coefficients and inferential statistics such as; MANOVAS, ANOVAS, product-moment correlations and standard regression analysis were used to analyse the data using the SPSS programme. The results indicated that nurses used the integrating style most frequently and used the dominating style least when dealing with a conflict situation. Furthermore, *time demands*, *crisis management* and *colleague support* predicted an avoiding style; while, *workload*, *time demands*, *job security*, *feedback* and *colleague support* predicted the use of an integrating style. The obliging conflict handling style was predicted by *time demands* and *payment*; *workload*, *crisis management* and *payment* predicted the use of a dominating style and finally, *colleague support* predicted the use of a compromising style.

Further discussion and recommendations were made for future research and for the nursing profession in general. One of the recommendations is that a model can be constructed to help prevent or reduce conflict within public hospitals.

## OPSOMMING

**Titel:** Assessering van die dinamika van konflik in openbare hospitale

**Sleutelsterme:** Konflik, konflikhanteringstyle, werkseise, werkhulpbronne, verpleegkundiges

Verpleging in Suid-Afrika het 'n moeilike en spanningsvolle beroep geword. Verpleegkundiges kom daaglik voor baie uitdagings te staan, insluitend: swaar werkladings, personeeltekort, gebrek aan hulpbronne en verminderde bestuursondersteuning (Von Holdt & Murphy, 2007). Die eise van hul werk oorskry die hulpbronne tot hul beskikking, wat dan tot konflik lei en uiteindelik hul welstand beïnvloed.

Die doelwit van hierdie navorsing is om die konflikhanteringstyle van verpleegkundiges in openbare hospitale wat die meeste en die minste aangewend word, te ondersoek en ook die verband tussen werkseise, werkhulpbronne en die verskillende konflikhanteringstyle van verpleegkundiges in openbare hospitale. 'n Deursnee-opname-ontwerp is gebruik. 'n Geriefsteekproeftrekking van verpleegpersoneel ( $N=205$ ) is by drie verskillende hospitale aan die Wes-Rand in die Gauteng provinsie gedoen. Die volgende skale is in hierdie studie gebruik: Rahim se organisasiekonflikinventaris (ROCI-II) en 'n selfontwikkelde poseienskapvraelys.

Beskrywende statistiek, Cronbach alfa-koëffisiënte, afgeleide statistiek, soos MANOVAS, ANOVAS, produkmomentkorrelasies en standaardregressie-ontleding is gebruik om die data deur middel van die SPSS-program te ontleed. Die resultate het aangedui dat verpleegkundiges die integrerende styl die meeste en die dominerende styl die minste gebruik om 'n konfliktsituasie te hanteer. Voorts het *tydeise*, *krisisbestuur* en *ondersteuning van kollegas* 'n vermydingstyl voorspel, terwyl *werkslading*, *tydeise*, *werksekerheid*, *terugvoering* en *ondersteuning van kollegas* die gebruik van 'n integrerende styl voorspel het. Die insiklike konflikhanteringstyl is deur *tydeise* en *betaling* voorspel; *werkslading*, *krisisbestuur* en *betaling* het die gebruik van 'n dominerende styl voorspel en laastens het *ondersteuning van kollegas* die gebruik van 'n kompromiestyl voorspel.

Verdere bespreking en aanbevelings vir toekomstige navorsing en vir die verpleegberoep oor die algemeen is gedoen. Een van die aanbevelings is dat 'n model saamgestel kan word om konflik in openbare hospitale te voorkom of verminder.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 PROBLEM STATEMENT**

While conflict is inevitable in any workplace environment, continual conflict is detrimental to the quality of nurses' work environments (Baumann, O' Brien-Pallas & Armstrong-Stassen, 2001) and has the potential to negatively affect not only quality patient care, but also the physical/ psychological wellbeing of employees and subsequently, employee relations. In 1994, the newly-elected government inherited a distribution of hospitals and hospital services structured by the apartheid regime, with a fragmented health administration and differentiation in the quality of services provided to different racial groups (Heunis, 2004). During the late 1980's and 1990's there was a general deterioration in conditions in all public hospitals resulting from budgetary constraints and the expansion of private hospitals (Dudley, 2006; Heunis, 2004). The restructuring in the health sector may well have had a negative impact on quality at an operational level regarding the treatment of patients. In broad terms Mokoka, Oosthuizen and Ehlers (2010) state that hospitals are experiencing staff shortages, unmanageable workloads, excessive overtime, a lack of resources and equipment, unrealistic demands by management and authorities, budgetary constraints, inadequate patient care and poor working conditions. Due to the transformation of public hospitals that occurred over the past twenty years, where it is believed that political loyalties, race, affirmative action, language, skill level, seniority and culture have created complicated situations which eventually developed and contributed to the cause of conflict in public hospitals amongst nurses (Pillay, 2009). According to Pillay (2009) the crucial role that nurses undertake to ensure effective and sustainable health care in public hospitals has a direct impact on their ability to offer high quality patient care.

A study done by Stimie and Fouche (2004) suggests nurses experience many problems in public hospitals. Such problems include staff shortages, a lack of resources and high workloads caused by serving 83% of the population and also an ill-defined organisational culture which complicates the implementation of the overall organisational strategy. Another problem entails

tension between hospital management and members of the two trade unions, namely; National Education, Health and Allied Workers Union (NEHAWU) and Hospital Personnel Trade Union of South Africa (HOSPERSA). Since the June 2000 nurses' strike, management relationships with the unions have not been viewed as conducive or collaborative. Nursing employees are perceived as being disruptive, militant and forceful during their interactions with unions and management. Von Holdt and Murphy (2007) mention that ill-discipline among nurses appears to be a problem at most public hospitals. The fragmentation of authority structures, lack of accountability, and intimidation all contribute to this problem. Nurses are the backbone of any public hospital, but unmanageable workloads, staff shortages and limited organisational support place their functionality in a crisis. These problems create stress that may lead to burnout, which is a common occurrence in the nursing profession.

Nursing is considered as being stressful and strenuous work, which makes nurses exceptionally vulnerable to stress, fatigue and burnout (Van der Colff & Rothmann, 2009). If conflict is not managed correctly, it can lead to a number of negative outcomes, including; reduced performance and effectiveness, lower levels of productivity, health problems, absenteeism, high rate of turnover, alcohol and drug abuse and destructive behaviour, which will result in industrial action, poor labour relations and diminishing levels of quality patient care (Gerardi, 2004). How nurses handle conflict will not negate the negative consequences of such conflict, but the use of collaboration and accommodation, could result in nurses experiencing lower levels of stress, reduced burnout and improved overall wellbeing (Almost, Doran, McGillis-Hall & Spence-Laschinger, 2010). Nurses are expected to work with colleagues and patients who come from differing cultures and backgrounds and they are therefore, required to form collaborative relationships with each other (Almost *et al.* 2010). As a result of individuals having divergent values, conflict may potentially result in negative effects on employment relationships (Tabak & Koprak, 2007).



## 1.2 LITERATURE REVIEW

### **Conflict management**

Al-Hamdan, Norrie and Anthony (2014) conceptualise conflict as “a struggle between two or more parties who perceive incompatible goals, limited resources and interference from others in achieving their own goals”. A similar definition is given in the literature by (Tabak & Koprak, 2007) who states that “conflict is a situation arising where one party perceives the behaviour and objectives of the other party are not compatible with their own and therefore, are a threat”. Workplace relationships built on collaboration and support may result in nurses feeling more satisfied and less stressed (Bishop, 2004).

The antecedents of conflict in the literature suggest that several categories, which originate from individual characteristics, interpersonal factors and organisational factors, may be identified. When conflict continues over a period of time, the original cause of the conflict may be perpetuated if it is not properly addressed and resolved (Wall & Callister, 1995). There are numerous ways to handle conflict based on the Thomas-Kilmann’s (1974) model.

The behaviours used in this model might be conscious or unconscious and individuals might find themselves using more than one aspect. One of the most commonly used models of conflict is Rahim’s (1983b) model, which is based on five styles, namely; (oblige, avoid, dominate, integrate, and compromise), which occur along two dimensions (concern for self and concern for others).

1. The obliging (accommodating) approach is characterised by people who have a low concern for their own needs and a high concern for the needs of the other party. This style looks to satisfy the concerns of the other party at the expense of one’s own concerns, by finding a ‘lose-win’ solution (Thomas, Thomas & Schaubhut, 2008). The use of this style is associated with realising that the issue at hand is more important to the other party and therefore, giving in to the other party’s views/ demands will preserve future relationships (Rahim, 2002).

2. The avoiding approach is characterised by people who have low concern for both their own needs and the needs of the other party (i.e. low concern for self and low concern for others). According to Rahim (2002) this style is often used in situations in which one party seeks to prevent conflict by ignoring it exists or by postponing it's occurrence.

3. The dominating (competing) approach is characterised by people who are highly concerned for their own needs and not the needs of the other party. This style results in a 'win-lose' situation in which the needs of one party are satisfied at the expense of the other party (Thomas *et al.* 2008). Rahim (2002) states that the dominating style involves defeating the other party by using assertive/ aggressive tactics.

4. The integrating (collaborative) approach is associated with people who are concerned about both their own needs and the needs of the other party. This style seeks a 'win-win' solution (for both parties) to a conflict situation (Thomas *et al.* 2008). According to Rahim (2002) sharing information openly, seeking alternative solutions and cooperation, are common behavior's associated with this style.

5. The compromising approach is associated with people who have a moderate concern for their own needs and the needs of others. According to Thomas *et al.* (2008) finding a 'middle ground' solution characterises the compromising approach. Rahim (2002) mentions that this style involves finding solutions that are acceptable to both parties (i.e. both parties walk away from the conflict feeling as if they have satisfied their needs).

Previous studies (Bishop 2004; Lawrence & Callan 2006; Warner, 2001) have found that managers and nursing colleagues are identified as being among the most common sources of conflict for nurses; however, conflict with colleagues is viewed as the most stressful source of conflict. In a study of 275 nursing managers Al-Hamdan, Shukri & Anthony (2011) found that lower ranked nurses (e.g. staff nurses) tended to choose the avoidance approach, while senior nurses opted for the collaborating and compromising approach. This suggests that status and authority might be factors in the choice of conflict resolution tactics. This notion is supported by Vivar (2006) who states that the relationship between the head nurse and lower ranked nurses is based on authority, with new professional nurses having a dependency relationship with the head

nurse as they regard her as more knowledgeable, responsible and authoritative which, in turn, may influence the way nurses manage their conflict.

According to Danna and Griffin (1999) experiencing continuous workplace conflict may negatively impact on the work environment and may result in the use of alcohol and sleeping problems. These problems in turn, affect the physical and psychological well-being of the individuals involved. In other words, physical and psychological functioning may be dramatically affected by conflict in the workplace, leading to feelings of stress and burnout.

### **Stressors for conflict**

Riahi (2011) emphasised the importance of role stress amongst nurses in their work environment. However, the concepts of stress, role stress and occupational stress require further clarification as these terms are seen as having the same underpinning. Stress is a frequently used concept today. Olofsson, Bengtsson, and Brink (2003) describe stress as “any living organism experiencing some form of strain”. Stress is experienced by both humans and animals and may result in an intense and distressing experience which, in turn, may influence behaviour (Lazarus, 1966). Lambert, Lambert, and Yamase (2003) are of the opinion that stress will develop when an individual’s *demands* exceed their available *resources*.

In a study by Van der Colff (2005) three factors relating to stress were identified, namely; lack of organisational support, job demands and nursing-specific demands (patient care). Nurses experience the following stressors related to a lack of organisational support: staff shortages, inadequate compensation, colleagues not performing their tasks and demotivated co-workers. The following stressors related to job demands are also experienced: heavy workloads, patient demands and health risks posed by contact with patients. It seems that nursing-specific demands are not seen to occur as frequently as a lack of organisational support (lack of resources) and job demands. The two most intense stressors regarding nursing-specific demands are identified as: performing painful procedures on patients and watching a patient suffer (Van der Colff, 2005).

According to Walker and Avant (2005) antecedents are defined as “incidents that should occur preceding the occurrence of the concept”. Role stress is experienced differently and at different times, by each nurse as certain events/ incidents occur before role stress begins to emerge. Clegg (2001) is of the opinion that the antecedents of role stress are based on the perception of nurses and should be viewed from the preventative methods perspective. Cooper and Cartwright (1997) identify three preventative methods, including; primary, secondary and tertiary prevention which are aimed at creating a “healthy organisation” that reduces both role stress and workplace stress. Therefore, managing work and role stress for all health care workers is of utmost importance. Furthermore, role stress in the work environment has consequences for both; the health of nurses and the quality of care provided to patients.

Walker and Avant (2005) describe consequences as “the outcome of the concept or the incidents that occur as a result of the occurrence of the concept”. The stress that nurses experience in their work environment may result in numerous consequences. Literature (McVicar, 2003; AbuAlRub, 2004) suggests that stress has numerous consequences, including: absenteeism, high staff turnover - resulting in poor nursing retention, ill health, decreased quality of care, increased cost of health care, decreased job satisfaction and turbulent employment relations. From the factors mentioned above it is clear why stress is viewed as one of the main reasons which prevents nurses from performing at their optimal level of effectiveness (Happell, Pinikahana, & Martin, 2003). Stress may also lead to burnout which has the potential of affecting nurses physically and mentally.

From the above literature, the following problem can be identified; conflict and stress are elements which are inevitable in the nursing sector in South Africa. Limited research exists on linking conflict handling styles to job demands and job resources of nurses in public hospitals. Nursing services are currently experiencing increased conflict as a result of environmental, organisational and individual factors which has a direct effect on employee relations within the hospital.

## **Research questions**

From above, the following research questions emerged:

- How are conflict handling styles, job demands, and job resources conceptualised according to literature?
- What are the most and least employed conflict handling styles of nurses within public hospitals?
- Do differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses?
- What is the relationship between job demands, job resources and the different conflict handling styles among nurses in public hospitals?
- What job demands and job resources predict the use of certain conflict handling styles among nurses?
- What recommendations can be made for future research and practice?

## **1.3 RESEARCH OBJECTIVES**

The objectives of this study are divided into general and specific objectives.

### **1.3.1 General objective**

The general objective of this study is to determine which conflict handling styles are used the most and least and what role job demands and job resources play in the use of certain conflict handling styles among nurses within public hospitals.

### **1.3.2 Specific objectives**

The specific objectives of this study are as follows:

- To investigate how conflict handling styles, job demands and job resources are conceptualised according to literature.

- To investigate the most and least employed conflict handling styles of nurses within public hospitals.
- To investigate whether differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses.
- To investigate the relationship between job demands, job resources and the different conflict handling styles, among nurses in public hospitals.
- To investigate whether job demands and job resources predict the use of certain conflict handling styles among nurses.
- To make recommendations for future research and for practice.

## **1.4 RESEARCH DESIGN**

### **1.4.1 Research Approach**

A quantitative approach is used. In quantitative research, an investigator relies on numerical data to test the relationships between the variables (Maree, 2007). A typical type of research study that employs quantitative research would be an experiment or a survey study (Kaplan, 2004). The quantitative researcher tests theories about reality, looks for cause and effect and uses quantitative measures to gather data to attain research objectives.

A cross-sectional survey design is employed to attain the objectives of this research study. According to Salkind (2010) “a cross-sectional survey collects data to make inferences about a population of interest (universe) at one point in time”. Cross-sectional surveys have been described as ‘snapshots’ of the populations about which they gather data. Cross sectional data can be highly efficient in testing the associations between two variables (Salkind, 2010).

## **1.4.2 Research method**

The research method consists of a literature review, research participants, measuring instruments, research procedure, statistical analysis and ethical considerations.

### **1.4.2.1 Literature review**

In the literature review, causes of stress and conflict as well as the outcomes thereof, are reviewed. The most recent, relevant articles pertaining to this study are obtained by doing computer searches using databases such as Academic Search Premier, Business Source Premier, PsycArticles, PsycInfo, EbscoHost, Emerald, ProQuest, SA Cat, SAePublications, Science Direct and Nexus, JSTOR, Ehost, RefWorks, SCImago, Emerald and Google Scholar. The main journals that are consulted due to their relevance of the topic of interest include; Human Resources for Health, South African Journal of Human Resource Management, South African Journal of Industrial Psychology, Community Psychiatric Nursing Journal, Journal of Nursing Management, Nursing and Health Sciences, South African Journal of Psychology, Journal of Advanced Nursing, International Journal of Nursing Studies, Journal of Advanced Nursing, Journal of Psychosomatic Research, Journal of Nursing Scholarship, Journal of Management, Academy of Management Journal, International Journal of Conflict Management, Academy of Management Journal, Journal of Nursing Administration. Keywords used during the search included; stress, conflict, general health, professional nurses, nurses, public hospitals and South Africa. Relevant data is obtained by using books such as; State of the Nation: Public Hospitals in South Africa: stressed institutions, disempowered management and Nurses and conflict: workplace experiences.

### **1.4.2.2 Research participants**

A random probability sampling procedure is used for the purpose of this research. According to Jupp (2007) any method of sampling that uses some form of random selection, ensures that all units in the population have an equal probability or chance of being selected. Random selection is an assumption of probability theory and the ability to draw inferences from samples to populations. The number of participants ( $N = 205$ ) consisted of nurses from different wards,

including: casualty, theatre, surgical and maternity wards. Respondents differ according to gender, age, marital status, qualification, language, tenure, age when started career, ward, job level, reporting to you, you report to, years worked in career, years working in hospital, years worked in the ward, hours per shift and how overworked the participant was.

### **1.4.2.3 Measuring instruments**

A self-developed biographical section, customised to the nursing environment in the hospital is used to measure the characteristics of participants. In this section, the following information is obtained, including; gender, age, marital status, highest qualification, home language, tenure, ward, job level, level of seniority and years of service.

**Conflict.** Rahim's Organisational Conflict Inventory-II (ROCI-II), is a standardised questionnaire which was developed by Rahim' (1983b). This instrument has been developed based on Blake and Mouton's five styles two factor analysis. The instrument was developed for the purpose of determining what '*styles*' people use to handle conflict. It is a 28 item questionnaire with a two-dimensional structure with five distinct styles: collaborating (e.g. I collaborate with my boss in coming up with decisions acceptable to both of us), accommodating (e.g. I usually accommodate the wishes of my boss), competing (e.g. I sometimes use my power to win in a competitive situation), compromising (e.g. I use "give and take" to reach a compromise), and avoiding (e.g. I attempt to avoid being "put on the spot" and keep conflict with my boss to myself). A member of an organisation responds to each statement on a five-point Likert scale: 1 (strongly agree), 2 (agree), 3 (undecided), 4 (disagree) and 5 (strongly disagree). The ROCI-II contains three separate forms, A, B and C that differ only in reference to conflict with a boss, subordinate or peer, respectively. The ROCI-II also solicits information such as tenure, sex, functional area, organisational level and education (Rahim, 1983b). According to a study by Daly, Lee, Soutar, and Rasmi (2009) internal consistency reliability estimates were satisfactory. Coefficient alpha's ranged accordingly: four items were used to measure the oblige style ( $\alpha= 0:83$ ) and the dominate style ( $\alpha= 0:85$ ), six items were used to measure the avoid style ( $\alpha= 0:86$ ), and seven items were used to measure the integrate style ( $\alpha= 0:87$ ).



**Job demands and job resources.** In order to determine the specific demands and resources that affect the work of nurses, the developer of the Job Characteristics Questionnaire (JCS) and the developer of the Job Content Questionnaire (JCQ) used focus groups to identify specific factors that hinder or help nurses in the execution of their work. After responses are analysed, the major demands that nurse's experience can be classified as: emotional demands, pressure, time related demands and nurse-specific demands. Resources are identified as: autonomy, role clarity and support (including support from colleagues and supervisors as well as financial support from the organisation). The items for pressure, job control and support are derived from existing questionnaires and measured on a 4-item scale ranging from 1 "almost never" to 4 "always". The rest of the items are self-developed or adapted from the Job Characteristics Questionnaire (JCS). Items for pressure are derived from the Job Content Questionnaire (seven items; e.g. "Do you have enough time to get the job done?").

Autonomy was measured by 7 items on experience and evaluation of work from the validated questionnaire (Van Veldhoven, Meijman, Broersen & Fortuin, 1997) (e.g. "Can you take a short break if you feel that it is necessary?"), with higher scores denoting a higher level of autonomy. Colleague and supervisory support was measured by items addressing support from the JCQ (e.g. "Can you count on your colleague when you come across difficulties in your work?", "My supervisor is helpful in getting the job done"), and financial support from the self-developed items (e.g. "Does your job offer you the possibility to progress financially?"). The other demands and resources were measured using self-developed items: emotional demands (nine items; e.g. "Are you confronted in your work with things that affect you emotionally?"). Time-specific demands (five items; e.g. "Do you have to work irregular hours?"). Nurse-specific demands (six items: e.g. "Do you experience insults from patients or their family?") and role clarity (nine items: e.g. "Do you know exactly what patients expect of you in your work"). All items were rated on a 4-point scale, ranging from 1 (never) to 4 (always). Previous alpha's cannot be reported as this is a self-developed questionnaire.

#### **1.4.2.4 Research procedure**

The Gauteng Department of Health (DoH) is contacted for permission to conduct the research among nursing staff. Upon receiving approval from the chief executive officer, the matron of

each public hospital is contacted for permission to conduct the research among participants in different departments in each hospital. A telephonic discussion followed by a face-to-face meeting takes place with the matrons to explain the nature of the research and the value it could provide for employment relations among nursing staff in the public health care sector. Once permission is granted by the matron of each hospital, a booklet containing the measuring instruments was provided to each participant before the start of their shift. The booklet is handed to each matron, upon completion. The matron places the completed questionnaires from each department in a box, which is later collected by the researcher after approximately two to three weeks. The participants are assured of anonymity and their results kept confidential.

#### **1.4.2.5 Statistical analysis**

The analysis of the data is conducted by the use of Analysis of a Moments Structure (AMOS) (Tabachnick & Fidell, 2001) and the Statistical Package for Social Sciences (IBM SPSS, 2012) in both articles. With AMOS, confirmatory factor analysis (CFA) is conducted for this research to determine construct validity, as the instruments have shown great construct and concurrent validity in previous studies (Rahim, 1983a; Al-Hamdan, Norrie & Anthony, 2014). Welch (2010) mentions that “confirmatory factor analysis uses variables to reproduce and test previously defined relationships between the indicator variable”. “CFA is a hypothesis driven approach requiring theoretically and/or empirically based insight into the relationships among the indicator variables”(Welch, 2010). This insight is essential for establishing a starting point for the specification of a model to be tested (Welch, 2010).

Cronbach alpha coefficients have been employed by the use of the SPSS programme to identify the reliability of the dimensions measured in the instruments in both articles. Cronbach’s alpha is a measure of the intercorrelation of the items and estimates the proportion of the variance in all the items that is accounted for by a common factor. Like other reliability coefficients, it ranges from 0 to 1.0. Scores toward the high end of that range (e.g. above .70) suggest that the items in an index are measuring the same thing. It is also referred to as “alpha coefficient” and “coefficient alpha” (Vogt, 2005).

Descriptive statistics have been computed where the distribution of data has been evaluated by inspecting the scores of the mean, standard deviation, skewness and kurtosis for all the scales measured by the instruments. Mean is a measure of central tendency for one variable that indicates the arithmetic average (i.e., the sum of all scores divided by the total number of scores (Neuman, 2003). Standard deviation is a measure of dispersion for one variable that indicates an average distance between the scores and the mean (Neuman, 2003). Skewness, (Terre Blanche & Durrheim, 1999) is the shape of frequency distributions and is described in terms of the degree to which they deviate from symmetry. Kurtosis is “an indication of the extent to which a distribution departs from the bell-shaped or normal curve by being either pointier (leptokurtosis) or flatter (platykurtosis). Kurtosis can be expressed numerically as well as graphically. Computer programs often provide such numbers. The basic rule for interpreting them is that negative numbers mean flatter than normal and positive numbers mean more peaked than normal. The number for a normal distribution is zero” (Vogt, 2005).

For further analysis, inferential statistics such as Multiple Analysis of Variance, correlations and regression analysis are used to explore the data in both articles.

Within article 1, Multiple Analysis of Variance (MANOVA) is used to determine the demographic differences in the experience of the conflict handling styles. Therefore, with MANOVA analysis the effects of different independent variables on the dependent ones are evaluated (Van der Colff, 2005). When an effect was significant in MANOVA, Analysis of Variance (ANOVA) is used to discover the dependent variable that is affected.

In article 2, product-moment correlation analysis is used to determine the relationship between conflict handling styles, job demands and job resources. Correlation is a synonym for association (Salkind, 2010). Within the framework of statistics, the term correlation refers to a group of indices that are employed to describe the magnitude and nature of a relationship between two or more variables.

After the relationship between these variables are determined, multiple regression analysis by means of the enter method, is carried out to determine if job demands and job resources predict the use of certain conflict handling styles.

Multiple regression is a data analysis technique that enables the analyst to examine patterns of relationships between multiple independent variables and a single dependent variable (Spicer, 2005). The dependent variables for this study are the conflict handling styles. The independent variables include: job demands and job resources.

#### **1.4.2.6 Ethical considerations**

According to Fox and Bayat (2007) “research projects are bound to raise ethical considerations. This is especially true when it involves people directly, but it may also be the case if research is conducted entirely on documentary evidence”. Ethics in research involves getting the informed consent (e.g. from the Gauteng Department of Health) of those who are going to be interviewed, questioned, observed or from whom materials are taken (Fox & Bayat, 2007). A number of issues are involved in ethical conduct in research, including the voluntary participation of nursing staff), informed consent (from the matron and nursing staff) and privacy, which includes keeping the data of participants completely anonymous and only allowing the researcher to view participants responses. According to Zikmund (2003) ethical issues depend on whether the participants in the survey are willing and have consented. This means the individual understands the reason for research and when he/she agrees to the study, the respondent’s right to confidentiality and anonymity has been assured. A person may choose to protect their privacy by not answering or responding to the questionnaires. A person, who waives their right to privacy by agreeing to the researcher’s questions, has the right to expect that his/her answers and identity will remain confidential. If the subject willingly consents to participate, it is expected that he or she will provide truthful answers. The ethical consideration identified in this research is that each staff member who completes the questionnaires, needs to be given time (approximately two weeks), privacy and reassurance that all information will be kept confidential and thus, no names are mentioned to protect the relationships among staff in the public hospitals.

## **1.5. OVERVIEW OF CHAPTERS**

Chapter 1: The differing conflict handling styles, job demands and job resources are conceptualised according to the literature.

Chapter 2: The most and least employed conflict handling styles of nurses in public hospitals are investigated. The chapter focuses on differences in accordance to various demographic groups (gender, age, marital status, qualification, language, tenure, age when started career, ward, job level, reporting to you, you report to, years worked in career, years working in hospital, years worked in the ward, hours per shift, overworked) that exist in the experience of different conflict handling styles among nurses.

Chapter 3: Investigates the relationship between job demands, job resources and the different conflict handling styles among nurses in public hospitals and investigates whether job demands and job resources predict the use of certain conflict handling styles among nurses.

Chapter 4: In this chapter, recommendations for future research and practice, are made.

## **1.6. CHAPTER SUMMARY**

This chapter provided a discussion of the problem statement, literature review, research objectives, research design, overview of chapters and summary. In addition, the research method was explained, followed by a brief description of the chapters that follow. In the following chapter, the most and least employed conflict handling style of nurses in public hospitals will be investigated and differences in accordance to various demographic groups that exist in the experience of different conflict handling styles among nurses was investigated.

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## **Chapter 2**

### **Research article 1**

## **THE PREVALENCE OF CONFLICT HANDLING STYLES AMONGST NURSES WITHIN THE PUBLIC HOSPITAL ENVIRONMENT**

**Orientation:** Public hospitals increasingly experience the effect of poor public healthcare as they struggle to cope with increased demand on their services, such as; fewer resources, staff shortages and healthcare budgetary cuts. This leads to nursing staff feeling disempowered, frustrated and dissatisfied. These factors create an environment in which conflict may manifest.

**Research purpose:** The purpose of the research was to investigate the prevalence of interpersonal conflict by examining the preferred conflict handling styles of nurses within public hospitals in the Gauteng province.

**Motivation for the study:** There is a gap in research in understanding what approach nurses use when handling conflict within public hospitals in the Gauteng area.

**Research design, approach and method:** A cross-sectional survey design was used. A sample of 205 nurses from Gauteng public hospitals participated in the research. The measuring instruments included a self-developed biographical questionnaire and Rahim's Organisational Conflict Inventory- II (ROCI-II).

**Main findings:** The results indicated the most frequently used conflict handling style was integrating and the least used was the dominating style. A statistically significant difference regarding conflict handling styles was found between qualification, job level, years worked in career and years worked in hospital.

**Practical/ managerial implications:** Hospital management needs to develop strategies that assist nurses in dealing with their conflict situations to promote positive employment relationships.

**Contribution/ value add:** This study adds value to nursing staff and their managers regarding the role of conflict in hospitals, while emphasising positive relationships that may benefit themselves and their patients.

**Keywords:** Public hospital, conflict, conflict handling styles, nurses.

# INTRODUCTION

## Background to the study

South Africa's health industry is divided into dual health systems (private and public hospitals), where private hospitals are managed and funded by private companies and serve approximately 20% of the population, whereas public hospitals are managed and funded by the state and are responsible for the majority of the health care provided to South African citizens (Pillay, 2009). The public sector is faced with many challenges, which can be attributed to a lack of resources, including staff shortages, poor infrastructure and lack of equipment (Von Holdt & Murphy, 2007). These challenges experienced by public sector hospitals increase demands placed upon nurses and ultimately cause them stress which may lead to conflict (McNeese-Smith & Nazarey, 2001). The worldwide health care industry is currently undergoing a process of change and the public health care sector in South Africa is finding it challenging to cope in a global economy that expects more for less (Brinkert, 2010). Iglesias and Vallejo (2012) suggest that managers are often confronted with conflict situations and if they are not handled properly, it may result in low employee morale, increased staff turnover and possibly even legal disputes. Literature further suggests that a deeper understanding of factors that underlie conflict resolution styles may result in better management strategies. Managing conflict in the nursing environment is no easy task and is often viewed as an important skill (Hillhouse & Adler, 1997). As Almost (2006) states, conflict in the nursing profession, is on the rise.

Conflict is inevitable in any organisation and it can be assumed that the nursing profession is no different (Gerardi, 2004). A typical day in a hospital involves providing care, gathering data, responding to emergencies, dealing with difficult/very ill patients, performing different medical procedures, as well as addressing the ward matron, physicians or technicians' orders. In such a diverse group of people, one can understand that conflict is likely to occur (Gerardi, 2004). Nursing is a profession that deals with different interpersonal relationships (relationships between nursing colleagues, the multidisciplinary team, support staff and patients) on a daily basis in a constantly changing environment; therefore, understanding how conflict is handled in this dynamic environment is of utmost importance (Hillhouse & Adler, 1997).

## **Conflict**

Conflict has been an integral part of human nature throughout history (Iglesias & Vallejo, 2012). Almost, Doran, McGillis-Hall and Laschinger (2010) suggest that conflict results when a person's behaviour and actions negatively affect another. Conflict is defined by Owolabi, Binuyo, and Oduyoye (2012) as "a disagreement of organisational members or groups over means or ends and attempts to establish their views in preference to others from the fact that they have different status, goals, values or perceptions". A similar definition of conflict has been found in a study by Tabak and Koprak (2007) as "a situation arising where one party in a workplace relationship perceives that the behaviour and objectives of the other party are not compatible with their own".

According to Pelled, Eisenhardt and Xin (1999), relationship conflict is defined as "a condition in which group members have interpersonal clashes, characterised by anger, frustration and other negative feelings". A similar definition is found in a study by Jen (2013) who defines relationship conflict as perceived incompatibility with the other party. Relationship conflict arises from interpersonal disagreements, for example; tension, animosity, annoyance, anger, friction or other personality clashes (Pelled *et al.* 1999). Therefore, according to the literature (Bruk-Lee & Spector, 2006) relationship conflict may have implications for both the organisation and its employees.

## **Organisational implications**

From an organisational perspective, conflict can be viewed as a performance constraint, inhibiting people from cooperating with one another on the job (Spector & Jex, 1998) or being able to complete a work task (Jehn, 1995a). Therefore, conflict in the workplace may be challenging since interactions with colleagues who have a 'difficult' nature, may be unavoidable, particularly when working in groups or teams, especially in the hospital setting (Jehn, 1995a). Therefore, as a work performance constraint that is unavoidable, workplace conflict is a formidable source of work stress that can have dire implications for the organisation. Studies by Jehn (1995b) and Tjosvold (1991) indicate that conflict predicts lower levels of productivity and

performance and also contributes to absenteeism. Spector and Jex (1998) are of the opinion that conflict is a major predictor of willingness to leave a profession, which results in higher levels of employee turnover, thereby already increasing staff shortages in a particular field (e.g. nursing professionals). Brinkert (2010) explains that in the nursing profession, there are financial costs for hospitals that experience conflict. Such costs include: litigation costs, lost management productivity, turnover costs, disability and work compensation claims, increased expenditure to handle adverse patient outcomes and perhaps even intentional damage to property. Whilst conflict impacts on the organisation, individuals working in those organisations are also directly affected.

### **Implications of conflict in nursing**

Conflict affects the health of employees as it may result in depression and social withdrawal (Bruk-Lee & Spector, 2006). Exposure to long term conflict may result in continuous headaches, stomach pains and anxiety (Danna & Griffin, 1999; Spector & Jex, 1998). Moreover, psychiatric problems such as suicidal thoughts and psychosis have also been identified as possible psychological outcomes of conflict (Wright, 2012). As a result, the consequences of workplace conflict impact not only on the individuals, but also on their colleagues because of increased workload for other employees, decreased patient satisfaction, increased sick leave and stress (Duddle & Boughton, 2007). Nonetheless, Jacinta (2006) states that conflict can be beneficial in some circumstances; for example, it may lead to the development of new policies, increased competition, improvement in the quality of nursing care and may produce creative problem solving techniques.

Recent research (Chang, Hancock, Johnson, Daly & Jackson, 2005) suggests that nursing conflict is on the rise because of reliance upon teams to provide quality healthcare and the high work demands associated with nursing. Conflicts between nurses themselves are becoming more frequent and more severe as a result of factors such as; shortages of staff, limited resources, high workload, lack of appreciation, insufficient compensation and poor relations with colleagues (McNeese-Smith & Nazarey, 2001). Some studies have estimated that nursing colleagues are the most prevalent source of conflict (Dunn, 2003; Farrell, 1999; 2001) whereas others suggest patient and family conflict occur more often than reported (Adip, Al-Shatti, Kamal, El-Gerges, & Al-

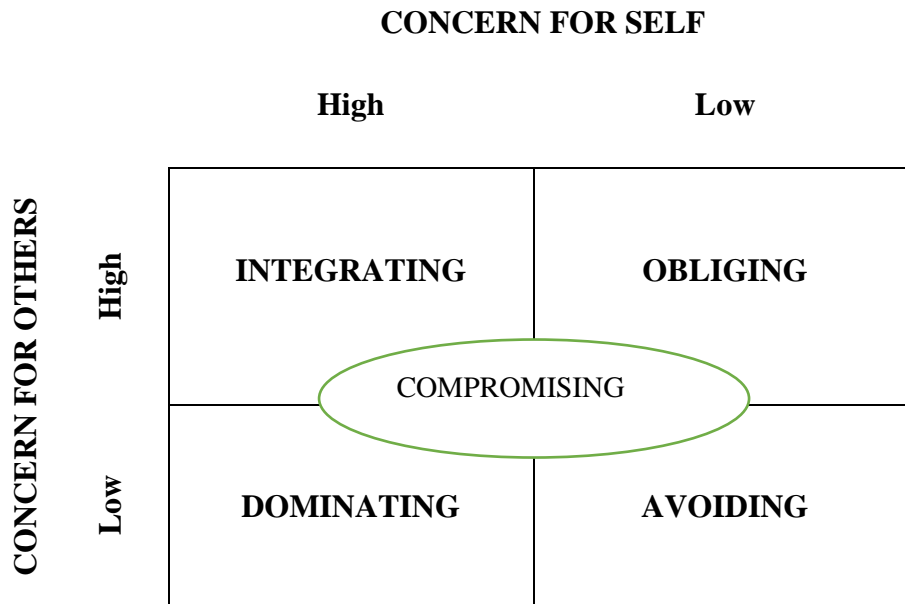
Raquem, 2002; Billeter-Koponen & Freden, 2005). The literature indicates that in the nursing profession ‘perceptions of disrespect’ are also a cause of conflict by nurses who are not treated with respect by their supervisors, regarding how decisions are made as nurses’ concerns are minimised, overturned and overlooked (Van Yperen, Hagedoorn, Zweers & Postma, 2000). Communication (or the lack thereof) whether it may be verbal or non-verbal, is another source of conflict (Warner, 2001). Often, a person’s words, verbal tone, facial expressions and body language lead to a misunderstanding which may result in conflict, especially if one person dislikes or distrusts the other person (Wall & Callister, 1995). The author further states that, when the perceived urgency is consistent amongst participants, cooperation rather than conflict, will be present. Alternatively, when one party perceives the issue as being ‘urgent’ and the other party does not, conflict results. A study by Wall and Callister (1995) indicates that in a busy hospital setting, the dimension of ‘perceived urgency’ seems to be a major determinant of conflict style. Skjorshammer (2001) suggests that conflict styles can have differing implications for the organisation and the individual employee. The way conflict is handled can also have far reaching consequences. Hence, in the next section, the focus will be on discussing the different conflict handling styles

### **Conflict Handling Styles**

Literature by Friedman, Tidd, Currall and Tsai (2000) suggests there is constant deliberation over whether a ‘style’ of conflict handling truly exists. Hocker and Wilmot (2010) define conflict handling styles as “a patterned response or cluster of behaviors that individuals use in conflict situations”. The concept of conflict handling styles has its origin in organisational research and social psychology (Rahim, 2002b). Blake & Mouton (1964) were early theorists who conceptualised the ‘modes’, (now known as styles or approaches) of handling interpersonal conflict. These modes were later revised and redeveloped by Thomas (1976) and three years later, Rahim and Bonoma (1979) differentiated the styles of handling interpersonal conflict according to two dimensions, namely, concern for self and concern for others. The first dimension (concern for self) indicates the degree (high or low) to which a person attempts to satisfy his/ her own concerns (Rahim, 2002a). The second dimension (concern for others) indicates the degree (high or low) to which a person wants to satisfy the needs of others (Rahim,

2002a). A combination of the two dimensions results in five specific styles for handling conflict, namely, Integrating, Obliging, Dominating, Avoiding and Compromising (Rahim, 1983). Vivar (2006) suggests that each of the five conflict handling styles has advantages and disadvantages. Each of the five styles can either be right or wrong in different situations and different circumstances.

**Figure 1: A model of the five styles for handling conflict**



Source: Rahim, M. A., & Bonoma, T. V. (1979). Managing organizational conflict: A model diagnosis and intervention. *Psychological Reports, 44*, 1327.

1. *Integrative (collaborative) approach* is associated with individuals who have a high concern for their own needs and for the needs of others. This style attempts to satisfy the needs of both parties by finding a ‘win-win’ solution (Thomas, Thomas & Schaubhut, 2008). This style makes use of certain behaviours, including; open information sharing, alternative solution seeking and cooperation in order to maximise each party’s outcomes (Rahim, 2002a). Tabak and Koprak (2007) state that this approach involves discussing the issue in order to obtain a mutually accepted outcome. When a difficult situation arises, the integrating approach requires professionalism from both parties to find a common solution to the problem. A study by Kaitelidou *et al.* (2012) indicates that the advantage of this approach is that both sides recognise



the agreement and/or disagreement. It is an ideal solution in the health services profession, especially for preserving close relationships among nurses and their colleagues. Kaitelidou *et al.* (2012) suggests that the disadvantage of this style is that it may be time consuming. Littlefield (1995) states this approach is a positive approach in the sense that both parties' needs and interests are considered during the conflict process which leads to both parties experiencing a 'win-win' outcome from the situation. In a study of conflict among nurses, Barton (in Booth 1982) found collaboration to be the style used most often by nurses in conflict situations. In practice, the integrative approach is considered the most efficacious conflict handling style (Tomey, 1995). Previous studies by Almost *et al.* (2010) indicate that those using the 'agreeable' approach to conflict, consider the ideas of others by working collaboratively to satisfy the needs of all parties involved, which results in a more harmonious work environment.

2. *Obliging (accommodating) approach* is associated with individuals who have low concern for self and high concern for the other (Thomas *et al.* 2008). This style attempts to satisfy the other party's needs at the expense of one's own by finding a 'lose-win' solution (Thomas *et al.* 2008). This approach is associated with accepting that an issue is much more important to the other party. As a result, one party 'gives-in' to the views/ demands of the other party in order to retain relationships (Rahim, 2002a). A study on conflict handling styles by Kaitelidou *et al.* (2012) indicates that the obliging approach involves yielding to the other party's needs, which is the opposite of the competing approach. Vivar (2006) suggests this approach results in an agreeable relationship between the parties. It is a useful approach when the behaviour of one side is wrong. Cavanagh (1991) states "it is not uncommon to find the use of apology when conflict situations become unavoidable". In a study by Iglesias and Vallejo (2012) it was found that clinical nurses, used the obliging approach more often than the compromising or integrating approach, which suggests that a concern for others, predominates over a concern for personal outcomes. A study by Tabak and Koprak (2007) suggests that the obliging approach may result in higher levels of stress as the one party submits to the wishes of the other party. The author further mentions that, when the obliging approach is used, it may or may not resolve the conflict, because if no group resources are used, the original problem could still remain.

3. *Dominating (competing) approach* is adopted by people who have a high concern for self and a low concern for the other (Thomas *et al.* 2008). This style focuses on attaining one's own goals while dismissing the concerns of the other party. This results in a 'win-lose' outcome (Thomas *et al.* 2008). This approach uses aggressive/ assertive tactics to ensure the dominant party wins at all costs (Rahim, 2002a). Tabak and Koprak (2007) support this view by stating that coercion is used to ensure that one point of view wins. A dominating or competitive individual will stop at nothing to achieve their desired viewpoint by ignoring the needs and expectations of others. As the use of this approach results in a winner and a loser, it should not be used too frequently. Kaitelidou *et al.* (2012) argue that this approach is useful in emergency situations where there is limited time for discussions and quick decisions have to be made. In a study by Cavanagh (1991) the dominating approach was the least favoured conflict handling style among nurses. Tabak and Koprak (2007) are of the opinion that the dominating approach will emerge among nurses when there is an element of authority, power and status involved (e.g. a senior nurse with higher authority will tend to be more dominant and assertive in the work environment). Friedman *et al.* (2000) found that individuals using an integrative approach have lower levels of conflict and stress. In contrast, nurses using a dominating or avoiding approach experience higher levels of conflict and stress. Thus, nurses may be able to shape their environment by adjusting their approach in conflict situations. Barki and Hartwick (2001) found that people working in teams with high levels of conflict were more likely to manage conflict by means of domination or avoidance (components of a disagreeable style) rather than collaboration (components of agreeable style). As a result of high levels of conflict, individuals are hesitant to become involved in an open discussion to resolve the situation. Instead, nurses are more likely to avoid the situation because of fear or anxiety, or choose to dominate as a way of controlling the situation (Almost *et al.* 2010).

4. *Avoidance approach* is associated with individuals who have a low concern for their own needs and a low concern for the needs of others. This approach involves ignoring the actual conflict and refusing to participate (Rahim, 2002a). A study done by (Kaitelidou *et al.* 2012) indicates that using avoidance may be a short-term solution. However, if it is used for a long time, it becomes counterproductive, as it denies that a problem exists and there is no attempt to find a solution to

the conflict situation. The authors state that the disadvantages of this approach include; there is often a perpetuation of conflict and solutions are only of a short duration. Vivar (2006) suggests that this type of conflict behaviour is described in the literature as a “generally disapproved” strategy as there is no resolution to the conflict itself. Skjorshammer (2001) describes the avoidance approach as not talking about any issue publicly or not bringing it up at a later stage. A study by Cavanagh (1991) mentions this approach indicates that a person has no interest in having their own needs or the needs of the other party met and s/he typically removes themselves by withdrawing from a situation that could result in potential disagreements. The author further states that these individuals are unlikely to be participative as they fail to acknowledge help from colleagues and are unwilling to make their voices heard. Empirical evidence (Valentine, 2001; Vivar, 2006) has found that avoidance is often the most frequently used conflict handling style irrespective of professional status, department or hierarchical level. Presumably this can be attributed to nurses who are experiencing high levels of conflict being unwilling to engage in it (Cavanagh, 1991). Individuals who use a “disagreeable” style are more likely to avoid conflict altogether, which results in a hostile atmosphere (Van der Vliert & Euwema, 1994).

5. *Compromise approach* is associated with individuals who have a moderate concern for self and a moderate concern for the other party. Tabak and Koprak (2007) view this approach as a ‘middle-of-the-road’ method that reflects an intermediate level of concern for both parties. It is characterised by finding a ‘middle-ground’ solution in which each parties needs are partially satisfied (Thomas *et al.* 2008). This approach involves a give-and-take attitude in order to arrive at a mutually acceptable outcome (Rahim, 2002a). Kaitelidou *et al.* (2012) believe this strategy is a ‘win-win’ orientation as each person or group approaches the problem with mutual concern, which results a solution that addresses both parties’ views. Morrison (2008) suggests that compromising includes the same dimensions as collaborating, but the dimensions are considered intermediate assertiveness and cooperativeness. This approach is one that requires the most time to resolve conflict, but offers the most effective solution. In a study by Hendel, Fish, Galon (2005) of conflict management among nurses in Israel it was found that the compromising approach was most favoured by nurses. This type of approach is more beneficial as it results in a ‘win-win’ solution for both parties, however, is not always feasible in every situation (Hendel *et al.* 2005).

From the literature above, the following problem can be identified: Public hospitals are under severe strain and the nursing services have not escaped the effects resulting from severe shortages of staff, over-crowding of wards, reduced budgets and a diminishing level of patient care across the country, all of which translates into an environment in which conflict can easily emerge. Limited research exists on the conflict handling styles of nurses in a public hospital in South Africa.

### **Research questions**

From above, the following research questions emerged:

- How are conflict handling styles conceptualised according to literature?
- What are the most and least employed conflict handling styles of nurses within public hospitals?
- Do differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses?
- What recommendations can be made for future research and practice?

### **RESEARCH OBJECTIVES**

The objectives of this study are divided into general and specific objectives.

#### **General objective**

The general objective of this study is to determine which conflict handling styles are employed the most and the least and what differences exist amongst various demographic groups within the nursing environment.

#### **Specific objectives**

The specific objectives of this study are as follows:

- To investigate how conflict handling styles are conceptualised according to literature.
- To investigate the most and least employed conflict handling styles of nurses within public hospitals.
- To investigate whether differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses.
- To make recommendations for future research and practice.

## **RESEARCH METHOD**

### **Research design**

This study followed a quantitative approach which relies on numerical data to allow the investigator to test the relationships between different variables (Maree, 2007). A typical example of a research study that employs quantitative research methods would be an experiment or a survey study (Kaplan, 2004). The quantitative researcher tests the theories about reality, looks for cause and effect, and uses quantitative measures to gather data to test the research objective.

In order to attain the objectives of this research, a cross-sectional survey design was used in which a standardised questionnaire was administered to nurses working in public hospitals in the Gauteng (West Rand) area. According to Salkind (2010) a cross-sectional survey collects data in order to make inferences about a population of interest (universe) at one point in time. Cross-sectional surveys have been described as snapshots of the populations about which they gather data.

### **Participants and Sampling Strategy**

Approximately 450 questionnaires were distributed to three public hospitals in Gauteng. The sample ( $N=205$ ) included nursing staff of all categories including professional, enrolled and auxiliary nurses and health care workers from different wards such as the surgical, orthopaedic, and the maternity wards as well as the intensive care unit (ICU). This yielded a response rate of approximately 48%. The characteristics of the participants are displayed in Table 1.

Table 1

*Characteristics of Participants (N=205)*

Item	Category	Frequency	Percentage
Gender	Male	22	10.7
	Female	179	87.3
	Missing values	4	2.0
Age	Younger than 20 years	2	1.0
	21-35 years	54	26.3
	36-45 years	60	29.3
	46-60 years	79	38.5
	60 years and older	7	3.4
	Missing values	3	1.5
Marital status	Single	81	39.5
	Married	83	40.5
	Divorced	19	9.3
	Widowed	10	4.9
	Life partner	7	3.4
	Missing values	5	2.4
Qualification	Grade 10 and lower	5	2.4
	Grade 11	8	3.9
	Grade 12	42	20.5
	Diploma or certificate	123	60.0
	Undergraduate degree	4	2.0
	Post-graduate degree	14	6.8
	Missing values	9	4.4
Language	English	9	4.4
	Afrikaans	7	3.4
	Setswana	78	38.0
	Sepedi or Sesotho	27	13.2
	isiXhosa	23	11.2
	isiZulu	32	15.6
	Other	28	13.7
	Missing values	1	.5
Tenure	4 years and less	60	29.3
	5 to 10 years	57	27.8
	11 to 15 years	18	8.8
	16 to 20 years	14	6.8
	21 to 25 years	18	8.8
	26 to 30 years	23	11.2
	31 and more years	9	4.4

	Missing values	6	2.9
Ward	Casualty	13	6.3
	ICU	9	4.4
	Maternity	13	6.3
	Medical	51	24.9
	Orthopaedic	13	6.3
	Other	9	4.4
	Out patient	6	2.9
	Paediatric	25	12.2
	Renal	5	2.4
	Surgical	27	13.2
	TB ward	8	3.9
	Missing values	26	12.7
Job level	Matron	2	1.0
	Professional nurse in charge of the ward	17	8.3
	Professional nurse	77	37.6
	Enrolled nurse	50	24.4
	Auxiliary nurse	54	26.3
	Care giver	1	.5
	Missing values	4	2.0
Reporting to you	Nobody	58	28.3
	1 to 5 people	68	33.2
	6 to 10 people	19	9.3
	11 to 15 people	14	6.8
	16 to 20 people	9	4.4
	21 to 25 people	2	1.0
	26 to 35 people	6	2.9
	36 to 50 people	3	1.5
	51 to 100 people	2	1.0
	101 and more people	2	1.0
	Missing values	22	10.7
You report to	Nobody	10	4.9
	1 to 5 people	147	71.7
	6 to 10 people	19	9.3
	11 to 15 people	6	2.9
	16 to 20 people	2	1.0
	26 to 35 people	2	1.0
	36 to 50 people	1	.5
	51 to 100 people	2	1.0
	Missing values	16	7.8
Years worked career	0 to 5 years	47	22.9
	6 to 10 years	36	17.6
	11 to 15 years	20	9.8

	16 to 20 years	12	5.9
	21 and more years	66	32.2
	Missing values	24	11.7
Years worked hospital	0 to 5 years	72	35.1
	6 to 10 years	48	23.4
	11 to 15 years	15	7.3
	16 to 20 years	11	5.4
	21 and more years	34	16.6
	Missing values	25	12.2
Years worked ward	0 to 5 years	117	57.1
	6 to 10 years	37	18.0
	11 to 15 years	8	3.9
	16 to 20 years	5	2.4
	21 and more years	4	2.0
	Missing values	34	16.6
Describe shift	8 hours	63	30.7
	12 hours	134	65.4
	Other	4	2.0
	Missing values	4	2.0
Overworked	Yes	73	35.6
	No	121	59.0
	Missing values	11	5.4

According to Table 1, the majority of the participants were female (87.3%) and between the ages of 46 - 60 years (38.5%). The majority of the participants were Setswana speaking (38%) with a tenure of 4 years or less (29.3%). Most of the participants were professional nurses (37.6%) who had worked for 21 years or more (32.2%) in their nursing career and (59%) of participants felt they were not overworked.

### Measuring instrument

The data was collected using a standardised questionnaire called the Rahim Organisational Conflict Inventory – II (ROCI-II) which was developed by Rahim in 1986. This instrument consists of 28 items which measures the five styles of handling conflict, each cast on a five-point Likert scale: 1= (strongly agree), 2= (agree), 3= (undecided), 4= (disagree) and 5= (strongly disagree) (Rahim, 1983). Each item was developed to enable responses to determining what



styles people use to handle conflict. It is a 28 item questionnaire that has a two-dimensional structure with five distinct styles: collaborating (e.g. I collaborate with my colleague in coming up with decisions acceptable to both of us), accommodating (e.g. I usually accommodate the wishes of my colleagues), competing (e.g. I sometimes use my power to win in a competitive situation), compromising (e.g. I use “give and take” to reach a compromise), and avoiding (e.g. I attempt to avoid being “put on the spot” and keep conflict with my colleagues to myself). According to a study by Daly, Lee, Soutar, and Rasmi (2009) internal consistency reliability estimates were satisfactory. Coefficient alpha’s ranged accordingly; four items were used to measure the oblige style ( $\alpha=0.83$ ) and the dominate style ( $\alpha= 0.85$ ), six items were used to measure the avoid style ( $\alpha = 0.86$ ), and seven items were used to measure the integrate style ( $\alpha= 0.87$ ).

A self-developed biographical section customised to the nursing environment was also included. In this section, personal characteristics were measured, including; gender, age, marital status, highest qualification, home language, tenure, ward, job level, level of seniority, years of service and level of satisfaction.

## **Research Procedure**

Prior to this research, the Department of Health (DoH) was contacted for permission to conduct the research in the Gauteng area and permission was granted. Thereafter, the chief executive officers (CEOs) of each hospital were contacted via email and telephone. They were given a sample copy of the questionnaire as well as further explanations of the research and participation of nursing staff that were willing to participate was requested. The nursing manager then distributed the questionnaires to participants. The questionnaires included a letter explaining the goal and importance of the study and provided contact information should there be any queries. The confidentiality and anonymity of participation were clearly stated in the letter. Participants were given fourteen days in which to complete the questionnaires. The questionnaires were retrieved from the nursing manager of each hospital after reminders were given by telephone and email. The questionnaires were collected personally by the researcher from the hospitals on the arranged day.

## **Statistical analysis**

The analysis of the data was conducted using the Statistical Package for Social Sciences (IBM SPSS, 2012). An analysis of a moments structure (AMOS) as statistical programme, was utilised to determine construct validity. AMOS is an added SPSS module and is specially used for confirmatory factor analysis. Confirmatory factor analysis (CFA) was conducted for this research as the instrument has shown great construct and concurrent validity in previous studies (Rahim, 1983a; Al-Hamdan, Norrie & Anthony, 2014). Pallant (2011) mentions that confirmatory factor analysis tests specific hypotheses or theories concerning the structure underlying a set of variables. Cronbach alpha coefficients have been employed to identify the reliability of the dimensions measured in the instruments. Cronbach's alpha is a measure of the intercorrelation of the items and estimates the proportion of the variance in all the items that is accounted for by a common factor. Like other reliability coefficients, it ranges from 0 to 1.0. Scores toward the high end of that range (e.g. above .70) suggest that the items in an index are measuring the same thing. It is more commonly referred to as "alpha coefficient" and "coefficient alpha" (Vogt, 2005).

Descriptive statistics were computed where the distribution of data was evaluated by inspecting the scores of the mean, standard deviation, skewness and kurtosis. The mean is a measure of central tendency for one variable that indicates the arithmetic average i.e. the sum of all scores divided by the total number of scores (Neuman, 2003). Standard deviation is a measure of dispersion for one variable that indicates an average distance between the scores and the mean (Neuman, 2003). Skewness is the shape of frequency distributions and is described in terms of the degree to which they deviate from symmetry (Terre Blanche & Durrheim, 1999). Kurtosis is "an indication of the extent to which a distribution departs from the bell-shaped or normal curve by being either pointier (leptokurtosis) or flatter (platykurtosis) than the bell curve. Kurtosis can be expressed numerically as well as graphically. Computer programs often provide such numbers. The basic rule for interpreting them is that negative numbers mean flatter than normal and positive numbers mean more peaked than normal. The number for a normal distribution is zero" (Vogt, 2005).

Multiple Analysis of Variance (MANOVA), which provides the effects of different independent variables on the dependent ones, was also used to analyse the data (Van der Colff, 2005). The effect of demographic variables (such as gender, age, marital status, qualification, language, tenure, ward, job level, reporting to you, you report to you, years in career, years in the hospital, years worked in the ward, describe shift and overworked) on the five conflict handling styles was also evaluated using this method. When an effect was significant in MANOVA, ANOVA (Analysis of Variance) was used to discover which dependent variables were affected.

## RESULTS

### Descriptive statistics

Table 2 illustrates the mean, standard deviation, and Cronbach alpha coefficient's of the five conflict handling styles.

Table 2

*Descriptive Statistics and Cronbach Alpha Coefficients of the ROCI-II (N = 205)*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
Avoiding	2.99	0.88	0.10	-0.43	0.64
Integrating	3.90	0.96	-1.29	1.44	0.84
Obliging	3.35	0.76	-0.51	0.07	0.63
Dominating	2.60	1.00	0.37	-0.38	0.67
Compromising	3.43	0.74	-0.63	0.46	0.60

According to Hair, Anderson, Tatham, Black (1998), the reliability for the alpha coefficient is usually acceptable at 0.70, but in exploratory research such as this study, it is acceptable at 0.60 (Monge, Cruz, & López, F, 2014). According to Maree *et al.* (2008) the following rules are followed to understand Cronbach's alpha coefficient: 0.90 - high reliability; 0.80 - moderate reliability; and 0.70 - acceptable reliability. If the reliability estimates are 0.80 and above, the questionnaire is seen as acceptable, and when under 0.60, reliability is unacceptable, but,

according to Field (2005), when measuring psychological constructs, values below .70 are acceptable due to the variability of constructs measured. The same author adds that “the Cronbach’s alpha of a questionnaire is affected by the number of items on the questionnaire: the higher the amount of items on the questionnaire the higher the Cronbach’s alpha coefficient; the lower the amount of items on the questionnaire, the lower the Cronbach’s alpha coefficient”.

Inspection of Table 2 shows that acceptable Cronbach alpha coefficients were obtained for all the constructs of the measuring instrument. The alpha coefficients ranged from 0.60 to 0.84. It therefore appears that the measuring instrument has acceptable levels of internal consistency. Upon inspection of the mean scores, it appears that the most employed conflict handling style used, was the integrating style (3.90), closely followed by the compromising approach (3.43) while the least employed conflict handling style was found to be the dominating approach (2.60).

### **Differences between demographic groups**

Next, MANOVA was used to determine differences between qualification level, job level, years in career and years working in hospital with regard to conflict handling style. Results were first analysed for statistical significance using Wilk's Lambda statistics. ANOVA was used to determine specific differences if a statistical difference was found.

Table 3 illustrates the statistical significant difference of various demographic variables. The results of the MANOVA analyses are given below.

Table 3

*MANOVA – Differences in Conflict Handling Styles based on Biographical Variables*

Variable	Value	<i>F</i>	<i>df</i>	<i>p</i>	Partial Eta Squared
Age	0.83	1.46	25.00	0.07	0.04
Language	0.85	0.95	35.00	0.56	0.03
Marital status	0.88	1.04	25.00	0.41	0.03
Qualification	0.77	1.73	30.00	0.01*	0.05
Tenure	0.84	0.99	35.00	0.48	0.03
Age when started career	0.46	0.93	155.00	0.70	0.15
Ward	0.69	1.31	55.00	0.07	0.07
Job level	0.76	1.83	30.00	0.00*	0.05
Years in career	0.80	1.79	25.00	0.01*	0.04
Years worked in hospital	0.76	2.22	25.00	0.00*	0.05
Years worked in ward	0.83	1.48	25.00	0.06	0.04
Hours per shift	0.96	0.60	15.00	0.88	0.01
Overworked	0.89	1.49	15.00	0.10	0.04

\*  $p \leq 0,05$  = statistically significant

In an analysis of Wilk's Lambda values, a statistically significant difference ( $p \leq 0.05$ ) regarding conflict handling styles was found between qualification, job level, years worked in career and years worked in hospital and was further analysed using ANOVA.

Table 4 illustrates a comparison of the conflict handling styles against the background variable of qualification level. The results of the ANOVA analysis are given below.

Table 4

*ANOVA - Differences in Conflict Handling Styles Based on Qualification*

Items	Grade 10 and lower	Grade 11	Grade 12	Diploma or certificate	Undergraduate degree	Post graduate degree	<i>p</i>	Partial Eta Squared
Avoiding	3.40	2.81	3.12	3.02	2.50	2.29	0.05*	0.06
Integrating	3.00	2.78	3.68	4.06	4.31	4.16	0.00*	0.11
Obliging	2.95	2.75	3.40	3.42	2.94	3.37	0.17	0.04
Dominating	2.67	3.00	2.68	2.58	2.67	2.05	0.36	0.03
Compromising	3.17	3.09	3.29	3.54	3.65	3.37	0.21	0.41

\* Statistically significant difference:  $p \leq 0,05$

Table 4 showed statistically significant differences between avoiding and integrating conflict handling styles. Participants with both grade 10 and lower and grade 12 opted for the avoidance approach compared to participants with a post graduate degree. Participants with an undergraduate and a post graduate degree preferred the integrating approach to conflict than participants with grade 10 or 11 qualifications.

Table 5 illustrates a comparison between conflict handling styles and the background variable of job level. The results of the ANOVA analysis are given below.

Table 5

*ANOVA – Difference in Conflict Handling Styles Based on Job Level*

Item	Matron	Professional nurse in charge of ward	Professional nurse	Enrolled nurse	Auxiliary nurse	Care giver	<i>p</i>	Partial Eta Squared
Avoiding	2.63	2.22	2.91	3.16	3.18	3.00	0.00*	0.09
Integrating	4.50	4.07	4.12	3.91	3.58	3.00	0.03*	0.07
Obliging	3.13	3.57	3.42	3.31	3.25	3.75	0.65	0.02
Dominating	1.17	2.35	2.51	2.74	2.71	2.33	0.27	0.04
Compromising	3.25	3.15	3.57	3.42	3.35	2.75	0.36	0.03

\* Statistically significant difference:  $p \leq 0,05$

Table 5 showed statistically significant differences between avoiding and integrating conflict handling styles. Participants working as enrolled and auxiliary nurses opted for the avoidance approach compared to participants working as professional nurses in charge of a ward. Participants working on the job level of a matron or professional nurse preferred the integrating approach to conflict compared to participants who were health care workers.

Table 6 illustrates a comparison between conflict handling styles and the background variable of years in career. The results of the ANOVA analysis are given below.

Table 6

*ANOVA – Difference in Conflict Handling Styles Based on Years in Career*

Item	0 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	21 years and more	<i>p</i>	Partial Eta Squared
Avoiding	3.16	3.07	2.83	3.01	2.73	0.05	0.05
Integrating	3.85	4.11	4.04	3.71	3.83	0.68	0.02
Obliging	3.37	3.41	3.22	3.25	3.40	0.90	0.01
Dominating	2.55	2.41	2.69	2.24	2.74	0.47	0.02
Compromising	3.47	3.69	3.50	2.90	3.26	0.00*	0.08

\* Statistically significant difference:  $p \leq 0,05$

Table 6 showed statistically significant differences between avoiding and compromising conflict handling styles. Participants working from 0 to 5 years and 6 to 10 years opted for the avoidance approach compared to participants working for 21 years and more. Participants working for 6 to 10 years and 11 to 15 years preferred the compromising approach to conflict compared to participants who were working for 16 to 20 years.

Table 7 illustrates a comparison between conflict handling styles and the background variable of years working in the hospital. The results of the ANOVA analysis are given below.



Table 7

*ANOVA – Difference in Conflict Handling Styles Based on Years Working in Hospital*

Item	0 to 5 years	6 to 10 years	11 to 15 years	16 to 20 years	21 years and more	<i>p</i>	Partial Eta Squared
Avoiding	3.10	2.64	3.15	3.03	2.92	0.04*	.056
Integrating	3.98	3.84	3.57	4.34	3.99	.304	.030
Obliging	3.43	3.18	3.52	3.17	3.45	.360	.027
Dominating	2.57	2.26	3.09	1.76	2.76	0.00*	.132
Compromising	3.63	3.27	3.20	3.26	3.35	.070	.050

\* Statistically significant difference:  $p \leq 0,05$

Table 7 showed statistically significant differences between avoiding and dominating conflict handling styles. Participants working from 0 to 5 years and 11 to 15 years preferred the Avoidance approach compared to participants working for 6 to 10 years. Participants working for 11 to 15 years and 21 year and more preferred the dominating approach to conflict compared to participants who were working for 16 to 20 years.

## DISCUSSION

Public hospitals in South Africa play a vital role in providing healthcare to the majority of South African citizens. Public hospitals currently experience the increased effect of poor public health care as it struggles to cope with an increased demand on its services, fewer resources, staff shortages and dwindling financial support from the government (Pillay, 2009). These factors all contribute to staff feeling disempowered, frustrated and disillusioned which can create an environment in which conflict among health care workers may thrive. The style of conflict management adopted by nurses with different demographic characteristics and professional levels may significantly reduce the direct and indirect implications associated with conflict

(Brinkert, 2010). Therefore, the objective of this study is to determine the most frequently used conflict handling style and if differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses.

Regarding the first objective of this study, the results indicated the most frequently used conflict handling style among nurses was the integrating approach, followed by the compromising approach. This may be explained by nurses in public hospitals who feel it is more beneficial to work together to solve their problems, than to fight the 'battle' alone. These conflict handling styles are often chosen by individuals because they are more practical in their approach to handling conflict and these conflict handling styles provide a 'win-win' solution to problem solving in which both parties' interests, needs and concerns are considered (Littlefield, 1995). Furthermore, these styles require both parties to actively seek effective problem-solving solutions so that all parties concerned can achieve a mutually satisfying conclusion to the conflict. Therefore, these styles incorporate one's own needs and the needs of others (Cavanagh, 1991). These findings are similar to a study done among nurses in Jordan by Al-Hamdan, Norrie and Anthony (2014) whereby conflict handling styles were also examined and the study found that the integrating approach was the most frequently adopted conflict handling style. While a study in Spain by Iglesias and Vallejo (2012) found that clinical nurses most frequently used an integrating approach to conflict handling.

The results further indicated the style least used by nurses in this study was the dominating approach, closely followed by the avoidance approach. A high concern for self but low concern for others describes the competing or dominating styles (Rahim & Bonoma, 1979). This approach is generally viewed as being disadvantageous as it results in a 'win-lose' situation. Moreover, the dominating approach is characterised by a person who will do anything to 'win' at any cost, even if it is at the expense of the other party (Rahim, 2002b). Consistent with the results of a study conducted by Barki and Hartwick (2001) nurses who reported higher levels of conflict were more likely to manage conflict using a competitive rather than collaborative approach. As a result of high levels of conflict, individuals may become more resistant to open

discussions to resolve their conflict. A study by Cavanagh (1991) similarly found the dominating (competing) approach was the least favoured style of conflict handling for nurses. Negative relationships that result from using a dominating approach create a stressful work environment and dissatisfaction (Warner 2001, Hesketh, Duncan & Estabrooks, 2003) which, in turn, leads to the likelihood that nurses will leave their jobs as a result of not working together effectively (Thomas, 1992).

### **Conflict handling styles between different demographics**

The results of this study revealed there was no significant difference in conflict handling styles according to the demographics such as; *age, language, marital status* and *tenure*. By means of the ANOVA, the first statistical significant difference was found in *qualification level*. The study found that nurses with a *grade 10* and lower *qualification* used the avoiding approach significantly more often than nurses with a post graduate degree. Statistical significance regarding the variable *qualification* was also found among nurses with an *undergraduate degree* who used the integrating approach significantly more than nurses with a *grade 11 qualification*. A study by (Kaitelidou *et al.* 2012) states that educational differences are a strong source of conflict and multiple levels of education in hospitals can lead to differences in nurses' goals, perhaps explaining the preference for the avoidance approach by nurses with a lower education level. The findings, therefore indicate that nurses with a higher *qualification* prefer an integrating style in contrast to nurses with a lower *qualification* who prefer an avoidance style to handle conflict.

The second statistical significance identified by means of the ANOVA was found in *job level*. The findings are that auxiliary nurses used the avoiding approach significantly more than professional nurses in charge of the ward. Statistical significance regarding the variable *job level* was also found among matrons, who use the integrating approach significantly more than care givers. This can be explained by the fact that the professional nurses are the senior nursing managers in the ward; if the work is not carried out effectively and there is poor patient care, it

reflects directly on the professional nurse who manages the junior staff. Thus, the professional nurse takes responsibility for the ward and auxiliary or enrolled nurses do not, so it may be easier for them to avoid the problem. Similar findings were found in a study of nursing managers by Al-Hamdan, Shukri and Anthony (2011) whereby results indicated that that more senior a nurse is, the greater the likelihood of choosing the integrating approach. It can be assumed that the higher the *job level* of a nurse, the more integrating the conflict handling style will be and the lower the *job level*, the more likely it is that nurses will avoid the conflict altogether.

The third statistical significance identified by means of the ANOVA was found in *years in career*. The findings are that nurses who had been working in their career between 6 to 10 years used the compromising approach significantly more than nurses who had been working for 16 to 20 years in their career. In contrast, a study of 60 head nurses by Hendel *et al.* (2005) found that the longer a head nurse had worked in their position, the more frequently they used collaboration as their preferred conflict handling style. A study of registered nurses in Mississippi by Whitworth (2008) found that the more experience nurses had, the greater their use of the accommodating style was.

The fourth and final statistical significance identified by means of ANOVA was found in *years worked in hospital*. The findings are that nurses who had worked in their particular hospital for 11 to 15 years used the avoidance approach significantly more than nurses who had worked in their respective hospital for 6 to 10 years. Statistical significance regarding the variable *years worked in hospital* was also found among nurses who have worked in their respective hospital for 11 to 15 years. These nurses use the dominating approach significantly more than nurses who had worked for 16 to 20 years. According to Skjorshammer (2001) individuals who use the avoidance style are unsure if they are able to make a stronger and more believable argument than that of their opponent. They may be unsure about what it takes to do this in terms of energy, skills or consequences and prefer to protect their self-image and future career by sweeping the issue 'under the carpet'. Skjorshammer (2001) explains that, if avoidance does not work to solve the issue at hand, an alternative style – the dominating approach – often emerges. This style is

used by individuals who use their formal or informal position of power to force the other party to give in to their demands. Hendel, Fish and Galon (2005) explain that nurses with more experience (e.g. 11 to 15 years in their hospital) tend to prefer an approach to conflict that will maintain their relationships in the long run. This could explain the findings in this study, as nurses with similar length of experience chose the avoidance approach more frequently. Therefore, it can be assumed that nurses use the avoidance approach because they prefer to maintain harmonious relationships in their work environment and if that does not work, they use their authority and experience to dominate their opponent.

## **PRACTICAL AND SCIENTIFIC IMPLICATIONS**

The hospital environment is a stressful environment that is riddled with conflict. Literature (Almost *et al.* 2010) suggests that, in many cases, nurses in public hospitals tend to avoid conflict. However, nurses who participated in this study from different public hospitals were mindful of their colleagues and were most likely to collaborate with their colleagues when faced with a conflict situation. This indicates that the nurses are a well-rounded team who understand the importance and significance of a good working relationship in their respective wards. The positive effects of the close-knit relationships are a beacon of hope to the healthcare industry throughout the country. Nurses displayed rational use of conflict handling styles. The effect of such use of conflict handling styles on their respective hospitals could go a long way in demonstrating that working together is always more constructive than trying to work alone or avoid the conflict altogether. The maintenance of fruitful and collaborative relationships include being aware of one's own behaviour. Nurses need to be made aware of their own actions and how they may impact on their colleagues. Nurses on a senior level need to act as role models to junior nurses and demonstrate the required behaviour for effective conflict resolution. Role models can encourage cooperative behaviour in others. If nurse managers adopt a supportive approach to their more junior staff members and encourage them to engage and confront issues at work, conflict is likely to be reduced and improved relationships will result.

## **CONCLUSION**

Overall, this study contributes to research done on the phenomenon of conflict by examining the preferred conflict handling styles of nurses in public hospitals, while also considering the effect of different demographic characteristics. With the use of the ROCI-II it was possible to establish the preferred conflict handling styles (avoiding, integrating, obliging, dominating and compromising) used by nurses which has proven to be very insightful. This study specifically found that nurses prefer the use of an integrating approach to handling conflict and least prefer using an avoiding approach. Nurses with a higher level of education did in fact prefer the use of an integrating approach, whereas nurses with lower levels of education opted for an avoiding approach. Thus, nurses who are more qualified, appear to understand the importance of working together to resolve their issues rather than ignoring the problem. Moreover, senior nurses who are at a higher job level, engage in mature approaches to handling conflict which provides the less experienced nurses with an opportunity to engage with their superiors on an equal level, finding common ground for both parties. Furthermore, the longer a nurse has worked in the health care industry, the more dominating he/she tends to be and will not allow conflict to disrupt the running of their wards.

## **LIMITATIONS AND RECOMMENDATIONS**

Despite the enlightening results that this study has provided, there is a need to mention a few limitations. The first limitation is the use of a cross-sectional survey design which makes it difficult to prove causal relationships. However, the relationships did prove to be adequate in this study. Another limitation is the language of the questionnaire which was only presented in English which may not be the home language of the participant and therefore, certain questions may have been misunderstood or misinterpreted. The sample size ( $N=205$ ) may also be considered a limitation as the results cannot be applied to all nurses working in public hospitals in South Africa. Also, in assessing the conflict handling styles of nurses, it is not possible to control all the factors influencing an individual's choice of style.

Although limitations of this study have been highlighted, certain recommendations for future research need to be mentioned based on the results. The ROCI-II can be used in other provinces in South Africa and more specifically, the conflict handling styles of nurses working in clinics around the country could be included. This study could be replicated in private hospitals in order to provide a comparative analysis of the preferred conflict handling styles of nurses in public and private hospitals. Furthermore, a model can be constructed to help prevent or reduce conflict within public hospitals. Providing training and education to healthcare professionals by creating educational courses would create an opportunity for learning outside of the clinical environment (Brinkert, 2010).

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## **Chapter 3**

### **Research article 2**

## **THE RELATIONSHIP BETWEEN CONFLICT MANAGEMENT, JOB DEMANDS AND JOB RESOURCES OF NURSES IN PUBLIC HOSPITALS.**

**Orientation:** Nurses employed in public hospitals in South Africa are experiencing increased job demands, limited resources and reduced management support coupled with budgetary constraints. These factors contribute to interpersonal conflict, which inevitably results in greater staff shortages.

**Research purpose:** The general objective of this study is to determine what role job demands and job resources play in the use of certain conflict handling styles among nurses within public hospitals. Specific objectives are to investigate: 1) the relationship between job demands, job resources and the different conflict handling styles among nurses in public hospitals; and 2) whether job demands and job resources predict the use of certain conflict handling styles among nurses.

**Motivation for the study:** There is a gap in research that links job demands and job resources to conflict handling styles among nurses in South African public hospitals.

**Research design:** A cross-sectional survey design of a target population of (N=205) nurses in public hospitals in Gauteng was conducted. Rahim's Organisational Conflict Inventory - II (ROCI-II) was used to measure conflict handling styles. A self-developed job characteristics measuring instrument was used to measure job demands and job resources. Factor and reliability analyses were conducted on the scales and regression analysis and correlations were used in the analyses.

**Main findings:** Job demands and job resources, including time demands, feedback and colleague support have a positive correlation with the integrating approach to conflict handling, while payment was statistically associated with the dominating approach and colleague support was practically and statistically associated with the compromising approach. Time demands, crisis management and colleague support predicted the use of an *avoiding* style, whereas workload, time demands, job security, feedback and colleague support predict the use of the *integrating* style. Time demands and payment predicted the use of the *obliging* style, while

workload, crisis management and payment predicted the use of the *dominating* style. The *compromising* style was predicted by colleague support.

**Practical implications:** In order for management to reduce conflict among nurses in public hospitals and enable nurses to perform their tasks more effectively, time demands need to be reduced.

**Contribution/ value add:** This study adds value to hospital management by identifying job demands and resources that could reduce conflict among nurses.

**Keywords:** Conflict, conflict handling styles, conflict management, job characteristics job demands, job resources.

## INTRODUCTION

Healthcare workers, including nurses, around the world are currently experiencing new challenges that are a result of increased workloads, witnessing patient suffering as well as occupational health risks such as HIV/ Aids, for example needle prick injuries which put the nurse at risk of contracting HIV/Aids (Pisanti, Van der Doef, Maes, Lazzari & Bertini, 2011). Public hospitals in South Africa are also currently in a state of turmoil because of an influx of people from rural areas into urban areas as a result of the lack of employment opportunities. Approximately 43% of the population served by the health care sector lives in rural areas (Cooke, Couper & Versteeg, 2011). This results in excessive overcrowding in already under-equipped and under-staffed hospitals (Stimie & Fouche, 2004). The public health care sector is responsible for the wellbeing of 83% of the population, yet it accounts for only 40% of health expenditure in South Africa. It is under-resourced and over-used and is characterised as inefficient in terms of its ability to offer accessible, affordable and appropriate health care (Pillay, 2009). The nursing profession faces many challenges in South Africa as it is often tasked with unrewarding and unpleasant tasks (Riahi, 2011). As a result of the shortage of staff, nursing personnel are often expected to do tasks they are not trained or remunerated for and thus, high quality nursing is reduced as less care is given to individual patients (Van der Colff & Rothmann, 2009). Another challenge for nursing staff is a lack of resources such as linen, food,



equipment and medicine. This shortage of resources results in nurses feeling dissatisfied as they cannot perform their nursing tasks effectively (Van der Colff, 2005). In addition to staff shortages and limited resources, a further challenge emerges, namely; workload. According to Von Holdt and Murphy (2007) there is a daily shuffling of patients from ward to ward and nurses are expected to provide care to an ever-increasing influx of patients, adding to their already heavy workload. These problems and challenges that are experienced by nursing staff ultimately cause them stress, which could result in interpersonal conflict.

According to McVicar (2003) shortages of staff and limited staff resources lead to high levels of stress. Similarly, McNeese-Smith & Nazarey (2001) state that nursing is a stressful profession, riddled with conflict. Factors that contribute to conflict include a lack of appreciation, shortages of staff, inadequate pay, increased workloads, more critically ill patients, and poor relations with colleagues. Furthermore, Kantek and Kavla (2007) suggest the most important sources of conflict in nursing are differences in management styles, employees' perceptions, inadequate personnel, differences regarding goal achievement and competition between work groups. Conflict may exist between employee and supervisor, between nurses and colleagues (Almost, 2006) between nurses and physicians (Tyler & Cushway, 1995) and between nurses and their patients (Hillhouse & Adler, 1997). It has been shown that hospitals with high patient-to-nurse ratios are more likely to experience stress and job dissatisfaction. This can lead to symptoms of ill health among nurses and higher risk for patient mortality (Aiken, Clarke & Sloane, 2001). Stress among healthcare personnel has been regarded as an occupational hazard for many years in many countries around the world (Gellis, 2002). The nurse's role is filled with stress as a result of physical labour, witnessing patient suffering, long working hours and interpersonal relationships that are central to the nurse's work. Regardless of whether the stress is perceived positively or negatively, the physical response results in reactions that may ultimately contribute to a variety of health related problems (Chou, Hecker & Martin, 2012).

Job demands are considered stressors that are present in the work environment and can include; time demands, heavy workload, high work pace, and interpersonal demands (Karasek, 1979). Both job complications and job demands contribute to "job stress" (Unruh & Nooney, 2011). Furthermore, job resources are considered to be aspects of the job that are important in

stimulating personal growth and learning and development (Bakker & Demerouti, 2007). Examples of job resources include colleague support, performance feedback, organisational support, participating in decision making, social support and job control (Bakker, Demerouti & Schaufeli, 2003). Therefore, it can be presumed that when job resources are limited and job demands are high, conflict may result.

Within the nursing environment, the ability to manage conflict effectively has been recognised as a critical skill (Hillhouse & Adler, 1997). Almost (2006) states that persistent conflict among nursing colleagues is a serious issue that cannot be ignored. This is because; conflict remains a formidable feature in the nursing environment, despite the presence of some of the finest peacemakers. Therefore, the researcher agrees with Iglesias & Vallejo (2012) that the factors that underlie conflict should be identified in order to implement better management strategies that ensure conflict handling styles fit a specific situation (Iglesias & Vallejo, 2012).

## **LITERATURE REVIEW**

### **Conflict management**

Tabak and Koprak (2007) define conflict as a situation that arises when one party in the workplace relationship perceives that the behaviour and objectives of the other party are not compatible with their own and therefore, are a threat. A similar definition is given by Folger, Poole and Stutman (2009) who define conflict as an interaction between two or more people who perceive goals to be incompatible which may result in possible interference from others. Therefore, in this study, conflict refers to opposing viewpoints from differing individuals/ groups where both parties' concerns are not aligned to their own goals. According to Vivar (2006) there is no specific 'right' way to handle conflict. However, identifying early signs of conflict is a critical step in resolving conflict. Research by Friedman, Tidd, Curall and Tsai (2000) questions whether there is a 'style' for handling conflict. The concept of conflict 'style' is considered to be a patterned response or behaviour that individuals use (Hocker & Wilmot, 2010). Blake and Mouton (1964) followed by Thomas and Kilmann (1974) and later by Rahim and Bonoma

(1979) used conflict 'styles' to conceptualise a conflict handling 'model' based on two dimensions, namely, concern for self and concern for others. The first dimension indicates the degree to which a person tries to satisfy their own concerns (Rahim, 2002a). The second dimension 'concern for others' indicates the degree to which a person wants to satisfy the other party's needs (Rahim, 2002a).

These two dimensions have resulted in five styles in which conflict can be handled, namely, *integrating*, *obliging*, *dominating*, *avoiding* and *compromising* (Rahim, 1983). The integrating style also known as 'collaboration', results in a win-win solution for both parties (Kaitelidou *et al.* 2012) This approach takes into consideration both parties' perspectives and is the most meaningful way in which to deal with conflict. This approach is characterised by a high concern for one's own needs and a high concern for the needs of others (Reich, Wagener-Westbrook & Kressel, 2007). The obliging style also known as 'accommodating', is where one party submits to the will of the other party (Kaitelidou *et al.* 2012). This approach results in a 'lose-win' solution and is characterised by a high concern for others and a low concern for self (Reich *et al.* 2007). The dominating approach also known as 'forcing' or 'competing', results in a win-lose situation (Kaitelidou *et al.* 2012). This occurs when a person or group attempts to dominate the decision and is useful when there is no time for discussion. This approach is characterised by a low concern for others and a high concern for self (Reich *et al.* 2007). The avoiding approach is used to deny the existence of the conflict. As a result, there is no active solution as there is no acknowledgement that a problem exists (Rahim, 2002a). This approach is associated with people who are not concerned about their own needs or the needs of others (Rahim, 2002b). The compromising approach is associated with give-and-take and finding solutions that are mutually acceptable to both parties (Rahim, 2002a). The compromising approach falls into the moderate range on both dimensions and is thus located at the midpoint of the two-dimensional space on the theoretical model (Reich *et al.* 2007). This approach is characterised by a moderate concern for both self and the other party.

A study conducted among nurses in Spain by Iglesias and Vallejo (2012) found that, overall, the compromising approach (with a no-win, no-lose) was the most frequently employed, while the least frequently adopted approach was the collaborating approach. A similar finding was found in a previous study by Cavanagh (1991) of nursing managers who used the compromise approach most frequently. In a study by Barki and Hartwick (2001) nurses who reported higher levels of conflict were more likely to adopt an avoidance or competing approach rather than collaboration and accommodation. A study by Cavanagh (1991) found that the dominating approach was least favoured among nurses while Tabak and Koprak (2007) assert that the dominating approach only tends to emerge when there is an element of authority, power and status. A study by Friedman *et al.* (2000) found that nurses who use an integrating and/or accommodating style experienced lower levels of stress and conflict. In contrast, nurses who used the dominating or avoidance style experienced higher levels of stress and conflict. Empirical evidence by Valentine (2001) and Vivar (2006) found that avoidance is the most frequently used conflict style which can be attributed to nurses experiencing high conflict levels but being unwilling to engage in the conflict (Cavanagh, 1991). As conflict and stress are closely linked according to Van den Tooren, De Jonge, Vlerick, Daniels and Van de Ven (2011) research into job stress concentrates on the characteristics of the work environment.

### **Job characteristics**

Nursing is a demanding occupation that requires physical and mental stamina because of stressors inherent to the job which includes job demands and interpersonal conflict (Thian, Kannusamy & Klanin-Yobas, 2013). The work environment and job characteristics of nurses are important predictors in stress-health outcomes (Adriaenssens, De Gucht, Van der Doef & Maes, 2010). The first job characteristic - *job demands*, can be defined as job requirements that require employee effort to achieve goals (Bakker & Demerouti, 2008). A similar definition is provided by Adriaenssens *et al.* (2010) who define job demands as tasks related to work that require physical and psychological effort. Job demands have a profound impact on nursing staff, unless job resources are adequate to deal with their demanding role (Van den Tooren *et al.* 2011). Examples of job demands in the nursing environment include *workload* and *emotional demands* (Van der Colff, 2005). Workload is described as working too hard or not having enough time to

complete tasks (Tummers, Janssen, Landeweerd & Houkes, 2001). A study by Govender (1995) found that issues related to workload are a significant source of stress and impact on the level of conflict. Presumably, job demands on nurses are similar to heavy workload - may require a certain conflict handling style, such as avoidance to deal with a stressful work environment. Emotional demands are associated with caring for patients (e.g. people in great pain or near death) and nurses may experience grief about having failed to save a life and in an effort not to show emotions, nurses work harder (Newton, 1989). Previous studies (Van der Colff, 2005) conclude that nurses do not discuss the death of a patient with their colleagues very often and hence, they lose one of the greatest 'resources' they have to cope with stress. Hence, the second job characteristic is *job resources*, which can be defined as the physical, social or organisational aspects of the job that may assist in achieving work goals, reduce job demands and stimulate growth and development (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). Job resources include *autonomy* or the lack thereof and is defined as the degree to which job providers provide freedom, independence and discretion to the individual regarding work schedule, which determines the procedures to be carried out (Katrini, Atabay, Gunay & Guneri, 2009). A study by Hackman and Oldham (1980) states that as nurses have direct contact with patients, their performance is vital not only to patients wellbeing but to themselves as well. A study by (Katrini *et al.* 2009) states that increasing autonomy in nurses' jobs increases their acceptance of responsibility and may have direct effects on patient wellbeing. It was also found that nurse managers play a role in task autonomy and empowerment by giving a reasonable span of control and providing nurses with access to information, support and necessary resources (Laschinger & Finegan, 2005). Another example of job resources is support from colleagues which involves sharing the burdens of the job (Bjarnadottir, 2011). Nurses have found this to be an important factor in overcoming challenges in their work environment as it leads to a feeling of unity (Bjarnadottir, 2011). This results in nurses being able to leave their shifts with a clear conscience as they could entrust responsibility to other nurses. Presumably, this 'closeness' between nursing colleagues would result in a collaborating style of handling conflict. Hence, job resources are not only necessary to deal with high job demands, but are also important in their own right.

According to Almost, Doran, McGillis-Hall and Spence-Laschinger (2010) a work environment built on constructive relationships with colleagues fosters an atmosphere of respect, collaboration, support and ultimately, less conflict. Even though a collaborative style of conflict management may be used it is not enough to prevent the negative effects of conflict which result in reduced satisfaction and intentions to leave the profession (Peterson & Behfar, 2003). Presumably, if nurses have support from their respective teams, they will use a collaborative approach to deal with their conflict. Relationship conflict may have serious effects on the retention of nursing staff (Ozken, Celik & Younis, 2012). Staff shortages and heavy burdens - '*workload*'- create work stress and may lead to further conflict (Leiter & Maslach, 2009). This results in frustration among nurses, reduced levels of patient care, an increase in negative outcomes and inefficient management (Stanley, 2000).

Vivar (2006) asserts that while research in the nursing environment has increased, there is a lack of research on the causes and effects of conflict in nursing. To the knowledge of the researcher, no research has addressed the relationship between conflict handling styles to job demands and job resources among nursing staff in public hospitals in the Gauteng province.

### **Research questions**

From above, the following research questions emerged:

- How are conflict handling styles, job demands, and job resources conceptualised according to literature?
- What is the relationship between job demands, job resources and the different conflict handling styles among nurses in public hospitals?
- What job demands and job resources predict the use of certain conflict handling styles among nurses?
- What recommendations can be made for future research and practice?

## **RESEARCH OBJECTIVES**

The objectives of this study are divided into general and specific objectives.

### **General objective**

The general objective of this study is to determine what role job demands and job resources play in the use of certain conflict handling styles among nurses within public hospitals.

### **Specific objectives**

The specific objectives of this study are as follows:

- To investigate how conflict handling styles, job demands and job resources are conceptualised according to literature.
- To investigate the relationship between job demands, job resources and the different conflict handling styles, among nurses in public hospitals.
- To investigate whether job demands and job resources predict the use of certain conflict handling styles among nurses.
- To make recommendations for future research and practice.

## **DESEARCH DESIGN**

### **Research approach**

A cross-sectional survey design was used to collect the data and to achieve the research objectives. The design can be used for the description of a population at a specific point in time and can be used to assess interrelationships between variables in the population (Shaughnessy & Zechmeister, 1997). Furthermore, this design is well suited to addressing the descriptive and predictive functions associated with correlation research (Shaughnessy & Zechmeister, 1997).

## **Research method**

The research method will be discussed under the following sub-headings:

### **Research participants and sampling**

A questionnaire was distributed to the population of nurses ( $N=450$ ) who were employed in three public hospitals in the Gauteng province of South Africa. A response rate of 46% yielded a sample of ( $N=205$ ) research participants. The majority of the participants were female (87.3%) and between the ages of 46 and 60 (38.5%). The majority of the participants are married (40.5%) and have a diploma or certificate (60%) in nursing. Most of the participants worked in the medical ward (24.9%) and were enrolled nurses (37.6%). Superiors receive reports from between 1 and 5 people (33.2), while (71.7%) of participants report to between 1 and 5 people and worked a shift of 12 hours (65.4%).

### **Measuring instruments**

A self-developed biographical section customised to the nursing environment was included in the questionnaire. In this section, personal characteristics were determined. These characteristics included gender, age, marital status, highest qualification, home language, tenure, ward, job level, level of seniority, years of service and level of satisfaction.

Two questionnaires were used to measure conflict handling styles and job characteristics. The researcher first describes the questionnaire used for conflict handling styles and thereafter, discussed the questionnaire used to identify job characteristics.

### **Conflict management instrument**

*Rahim's Organisational Conflict Inventory II (ROCI-II)* (Rahim, 1983) was used to measure how participants handle their interpersonal conflict with their colleagues. The instrument uses 28 items to measure the five styles of handling interpersonal conflict. The five styles include collaborating (e.g. I collaborate with my colleague in coming up with decisions acceptable to



both of us), accommodating (e.g. I usually accommodate the wishes of my colleagues), competing (e.g. I sometimes use my power to win in a competitive situation), compromising (e.g. I use “give and take” to reach a compromise), and avoiding (e.g. I attempt to avoid being “put on the spot” and keep conflict with my colleagues to myself). Each item is measured on a five point Likert scale - 1= (strongly agree), 2= (agree), 3= (undecided), 4= (disagree) and 5= (strongly disagree) (Rahim, 1983). Rahim (1983) reported that the internal consistency reliability of each scale, as assessed by Cronbach alpha was greater than .70. The test-retest reliability of each scale was greater than .75, except for the compromising scale, which had a reliability of .60. The reliabilities of the ROCI-II compare favourably with those of existing instruments that measure styles of handling interpersonal conflict. In a study by Daly, Lee, Soutar, and Rasmi (2009) internal consistency reliability estimates were satisfactory. Coefficient alphas ranged accordingly: four items were used to measure the oblige style ( $\alpha = 0.83$ ) and the dominate style ( $\alpha = 0.85$ ) six items were used to measure the avoid style ( $\alpha = 0.86$ ) and seven items were used to measure the integrating style ( $\alpha = 0.87$ ).

### **Job characteristics instrument**

In order to determine the specific demands and resources that affect the work of nurses, specific factors that hinder or help nurses in the execution of their work were identified. After the responses were analysed, the major demands that nurses experiences could be classified as emotional demands, pressure, time related demands and nurse-specific demands. Resources were identified as autonomy, role clarity and support (including support from colleagues and supervisors as well as financial support from the organisation). The items for pressure, job control and support were derived from existing questionnaires and measured on a 4-item scale ranging from 1 – ‘almost never’ to 4 – ‘always’. The rest of the items were self-developed or adapted from the Job Characteristics Questionnaire (JCS). Items for pressure were derived from the Job Content Questionnaire (seven items, e.g. “Do you have enough time to get the job done”?). Autonomy was measured by 7 items from the validated questionnaire on experience and evaluation of work (Van Veldhoven, Meijman, Broersen & Fortuin, 1997) (e.g. "Can you take a short break if you feel that it is necessary?"), with higher scores denoting a higher level of autonomy. Colleague and supervisory support was measured with items addressing support from the JCQ (e.g. "Can you count on your colleague when you come across difficulties in your

work"?, "My supervisor is helpful in getting the job done"), and financial support from the self-developed items (e.g. "Does your job offer you the possibility to progress financially?"). The other demands and resources were measured using self-developed items: emotional demands (nine items, e.g. "Are you confronted in your work with things that affect you emotionally?"). Time-specific demands (five items, e.g. "Do you have to work irregular hours?"). Nurse-specific demands (six items, e.g. "Do you experience insults from patients or their family?") and role clarity (nine items, e.g. "Do you know exactly what patients expect of you in your work?"). All items were scaled on a 4-point scale ranging from 1 – 'never' to 4 – 'always'. Previous alpha's cannot be reported as it is a self-developed questionnaire.

### **Research procedure and ethical considerations**

Nursing staff from all categories, including; matrons, professional nurses in charge of the ward, enrolled, auxiliary nurses and care givers from different wards were selected. The Department of Health (DoH) was first contacted for permission to conduct the research in three public hospitals in the Gauteng area and permission was granted. The Chief Executive Officers (CEOs) of each hospital were contacted via email and telephone and were given a copy of the questionnaire that stated the purpose of the research. They were requested to grant permission for nursing staff who were willing to participate in this study. When this stage was completed, the nursing manager distributed the questionnaires to willing participants. Confidentiality and anonymity were assured to all participants and a letter explaining the purpose of this study was issued. The letter included the contact information of the researcher should any queries arise. Participants were given between two and three weeks in which to complete the questionnaires. The questionnaires were collected from the nursing manager of each hospital after telephonic and email communication. Discussions were held with relevant stakeholders (DoH, CEOs) regarding ethical issues and an ethical clearance certificate was obtained from North West University to ensure all parties adhered to the terms of the research.

### **Statistical analysis**

The analysis of the data was conducted using the Statistical Package for Social Sciences (IBM SPSS, 2011). Confirmatory factor analysis (CFA) was conducted for this research on both instruments that measure conflict handling styles and job characteristics. Pallant (2011) mentions

that confirmatory factor analysis tests specific hypotheses or theories concerning the structure underlying a set of variables. Cronbach alpha coefficients were employed to identify the reliability of the dimensions measured in both instruments. Cronbach's alpha is a measure of the intercorrelation of the items and estimates the proportion of the variance in all the items that is accounted for by a common factor. Like other reliability coefficients, it ranges from 0 to 1.0. Scores toward the high end of that range (e.g. above 70) suggest that the items in an index are measuring the same thing. Descriptive statistics were computed to evaluate the distribution of data by inspecting the scores of the mean, standard deviation, skewness and kurtosis.

Inferential statistics, such as correlations and multiple regression analysis were used to explore the data further. Within the framework of statistics, the term correlation refers to a group of indices that are employed to describe the magnitude and nature of a relationship between two or more variables (Struwig and Stead, 2001). Product-moment correlation was used to determine the extent to which variation in one continuous variable explains the variation in another continuous variable. It examines the strength and direction of the relationship between variables (Struwig & Stead, 2001). It was used in this study to determining the relationship between job demands and job resources with the different conflict handling styles, Cut-off points of 0.30 (medium effect) and 0.5 (large effect) (Cohen, 1988) are set for the practical significance of the correlation coefficients.

Multiple regression is a data analysis technique that enables the analyst to examine patterns of relationships between multiple independent variables and a single dependent variable. According to Struwig and Stead (2001) these procedures can also be utilised to determine the level to which the independent variables predict a dependent variable.

The dependent variables for this study are the different conflict handling styles and the independent variables are '*job demands*' and '*job resources*'.

## RESULTS

### Descriptive statistics

Table 1 illustrates the mean, standard deviation, and Cronbach alpha coefficient's of the five conflict handling styles, job demands and job resources.

Table 1

#### *Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
Avoiding	2.98	0.88	0.13	-0.43	0.64
Integrating	3.91	0.96	-1.29	1.44	0.84
Obliging	3.35	0.76	-0.51	0.07	0.63
Dominating	2.60	1.00	0.37	-0.38	0.67
Compromising	3.43	0.74	-0.63	0.46	0.60
Workload	2.83	0.69	-0.16	-0.36	0.67
Emotional demands	2.75	0.66	-0.06	-0.64	0.74
Time demands	3.05	0.65	-0.71	0.42	0.62
Crisis management	2.87	0.73	-0.34	-0.18	0.70
Interpersonal demands	2.96	0.67	-0.38	-0.15	0.78
Autonomy	2.55	0.65	0.02	-0.18	0.66
Payment	1.72	0.71	0.87	-0.06	0.86
Job security	2.55	0.67	-0.05	-0.08	0.66
Feedback	3.02	0.69	-0.57	-0.08	0.78
Colleague support	3.07	0.67	-0.77	0.56	0.79

Inspection of Table 1 shows that acceptable Cronbach alpha coefficients above 0.60 were obtained for all the scales. This is an exploratory study for which an alpha coefficient between 0.60 and 0.70 suffices (Nunnally & Bernstein, 1994). All dimensions were normally distributed except for the integrating conflict handling style.

Following the descriptive statistics, product-moment correlation analysis was used to determine the relationship between conflict handling styles, job demands and job resources. The results of the analysis follow in Table 2.

Table 2

*Product-Moment Correlations for Conflict Handling Styles, Job Demands and Job Resources*

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Avoiding	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Integrating	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Obliging	.34 <sup>+</sup>	.28**	-	-	-	-	-	-	-	-	-	-	-	-
4. Dominating	.32 <sup>+</sup>	-.26**	0.12	-	-	-	-	-	-	-	-	-	-	-
5. Compromising	.34 <sup>+</sup>	.45 <sup>+</sup>	.42 <sup>+</sup>	0.04	-	-	-	-	-	-	-	-	-	-
6. Workload	-0.04	.26**	0.08	-.25**	0.12	-	-	-	-	-	-	-	-	-
7. Emotional demands	-0.03	.18*	0.08	-0.09	.20**	.21**	-	-	-	-	-	-	-	-
8. Time demands	0.04	.37 <sup>+</sup>	.19**	-.21**	.17*	.39 <sup>+</sup>	.21**	-	-	-	-	-	-	-
9. Crisis management	-.20**	.24**	0.10	-.23**	0.06	.20**	.32 <sup>+</sup>	.40 <sup>+</sup>	-	-	-	-	-	-
10. Interpersonal demands	-0.13	.27**	.15*	-.24**	0.13	.32 <sup>+</sup>	.46 <sup>+</sup>	.40 <sup>+</sup>	.54 <sup>++</sup>	-	-	-	-	-
11. Autonomy	0.10	0.05	0.04	0.08	.15*	-0.04	0.07	-0.02	0.03	0.01	-	-	-	-
12. Payment	0.07	-0.09	0.11	.31 <sup>+</sup>	0.01	-.22**	-0.04	-.38 <sup>+</sup>	-0.10	-.19**	.20**	-	-	-
13. Job security	0.07	0.00	0.03	-0.01	0.06	.15*	.18**	.15*	0.06	0.08	0.09	-0.01	-	-
14. Feedback	0.02	.34 <sup>+</sup>	.19**	-0.13	.24**	.15*	.25**	.35 <sup>+</sup>	.19**	.25**	.30 <sup>+</sup>	-.16*	.21**	-
15. Colleague support	0.06	.40 <sup>+</sup>	.17*	-.17*	.33 <sup>+</sup>	.26**	.32 <sup>+</sup>	.44 <sup>+</sup>	.40 <sup>+</sup>	.44 <sup>+</sup>	.15*	-.23**	0.10	.60 <sup>++</sup>

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

+ Practically significant with medium effect value 0.30 to < 0.49

++ Practically significant with a large effect > 0.50

According to Table 2 avoiding and obliging styles of conflict correlated with no job demands and resources. Integrating conflict style was practically and statistically associated with a medium effect to time demands (0.37), feedback (0.34) and colleague support (0.40). The dominating conflict style was practically and statistically associated with payment with a medium effect (0.31). The compromising conflict style was practically and statistically associated with colleague support with a medium effect (0.33).

To determine whether job demands and job resources predict the use of an avoiding conflict handling style, a standard regression analysis, by means of the enter method, was carried out. The results are reported in Table 3.

Table 3

*Regression Analysis with Avoiding Conflict Handling Style as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
1	(Constant)	2.48	0.53		4.71	0.00	2.38	.33	0.11	0.06
	Workload	-0.06	0.10	-0.05	-0.63	0.53				
	Emotional Demands	0.02	0.11	0.02	0.24	0.81				
	Time Demands	0.25	0.12	0.19	2.12	0.04*				
	Crisis Management	-0.33	0.10	-0.28	-3.27	0.00*				
	Interpersonal Demands	-0.12	0.12	-0.09	-1.04	0.30				
	Autonomy	0.12	0.10	0.09	1.19	0.24				
	Payment	0.13	0.09	0.10	1.36	0.18				
	Job Security	0.09	0.09	0.07	0.92	0.36				
	Feedback	-0.14	0.12	-0.11	-1.20	0.23				
	Colleague Support	0.27	0.13	0.21	2.19	0.03*				

Table 3 summarises the regression analysis with job demands and job resources as predictors of the avoiding conflict handling style. Entry of job demands and job resources produced a statistical model ( $F_{(10,194)} = 2, 38$ ;  $p = 0, 01$ ;  $\Delta R^2 = 0, 06$ ), accounting for approximately 11% of the variance. More specifically, it seems that time demands ( $\beta = 0, 19$ ;  $t = 2, 12$ ;  $p \leq 0, 05$ ), crisis management ( $\beta = -0, 28$ ;  $t = -3, 27$ ;  $p \leq 0, 05$ ), and colleague support ( $\beta = 0.21$ ;  $t = 2.19$ ;  $p \leq 0, 05$ ) predicted the use of an avoiding conflict handling style.

To determine whether job demands and job resources predict the use of an integrating conflict handling style, a standard regression analyses, by means of the enter method, was carried out. The results are reported in Table 4.

Table 4

*Regression Analysis with Integrating Conflict Handling Style as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>P</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
2	(Constant)	1.13	0.52		2.18	0.03	7.42	0.53	0.28	0.24
	Workload	0.20	0.10	0.14	2.06	0.04*				
	Emotional Demands	0.04	0.10	0.03	0.40	0.69				
	Time Demands	0.29	0.12	0.20	2.53	0.01*				
	Crisis Management	-0.07	0.10	-0.06	-0.72	0.47				
	Interpersonal Demands	0.05	0.12	0.03	0.43	0.67				
	Autonomy	0.05	0.10	0.03	0.52	0.61				
	Payment	0.01	0.09	0.01	0.13	0.90				
	Job Security	-0.20	0.09	-0.14	-2.22	0.03*				
	Feedback	0.22	0.11	0.16	1.97	0.05*				
	Colleague Support	0.31	0.12	0.22	2.54	0.01*				

Table 4 summarises the regression analysis with job demands and job resources as predictors of the integrating conflict handling style. Entry of job demands and job resources produced a statistical model ( $F_{(10,194)} = 7,42$ ;  $p = 0,00$ ;  $\Delta R^2 = 0,24$ ), accounting for approximately 28% of the variance. More specifically, it seems that workload, ( $\beta = 0,14$ ;  $t = 2,06$ ;  $p \leq 0,05$ ) time demands ( $\beta = 0,20$ ;  $t = 2,53$ ;  $p \leq 0,05$ ), job security, ( $\beta = -0,14$ ;  $t = -2,22$ ;  $p \leq 0,05$ ), feedback ( $\beta = 0,16$ ;  $t = 1,97$ ;  $p \leq 0,05$ ), and colleague support ( $\beta = 0,22$ ;  $t = 2,54$ ;  $p \leq 0,05$ ) predicted the use of an integrating conflict handling style.

To determine whether job demands and job resources predict the use of an obliging conflict handling style, a standard regression analysis, by means of the enter method, was carried out. The results are reported in Table 5.

Table 5

*Regression Analysis with Obliging Conflict Handling Style as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
3	(Constant)	1.70	0.45		3.74	0.00	2.16	0.32	0.10	0.05
	Workload	0.01	0.08	0.00	0.06	0.95				
	Emotional Demands	-0.04	0.09	-0.03	-0.42	0.68				
	Time Demands	0.22	0.10	0.19	2.12	0.03*				
	Crisis Management	-0.05	0.09	-0.04	-0.52	0.60				
	Interpersonal Demands	0.12	0.10	0.11	1.18	0.24				
	Autonomy	-0.05	0.09	-0.04	-0.58	0.56				
	Payment	0.25	0.08	0.23	3.04	0.00*				
	Job Security	-0.03	0.08	-0.02	-0.33	0.75				
	Feedback	0.15	0.10	0.14	1.52	0.13				
	Colleague Support	0.05	0.11	0.05	0.49	0.63				

Table 5 summarises the regression analysis with job demands and job resources as predictors of the obliging conflict handling style. Entry of job demands and job resources produced a statistical model ( $F_{(10,194)} = 2, 16$ ;  $p = 0, 02$ ;  $\Delta R^2 = 0, 05$ ), accounting for approximately 10% of the variance. More specifically, it seems that time demands ( $\beta = 0, 19$ ;  $t = 2, 12$ ;  $p \leq 0, 05$ ), and payment ( $\beta = 0.23$ ;  $t = 3.04$ ;  $p \leq 0, 05$ ) predicted the use of an obliging conflict handling style.

To determine whether job demands and job resources predict the use of a dominating conflict handling style, a standard regression analysis, by means of the enter method, was carried out. The results are reported in Table 6.



Table 6

*Regression Analysis with Dominating Conflict Handling Style as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
4	(Constant)	3.20	0.58		5.55	0.00	4.02	0.41	0.17	0.13
	Workload	-0.24	0.11	-0.16	-2.23	0.03*				
	Emotional Demands	0.05	0.12	0.03	0.42	0.68				
	Time Demands	0.08	0.13	0.05	0.60	0.55				
	Crisis Management	-0.22	0.11	-0.16	-1.95	0.05*				
	Interpersonal Demands	-0.13	0.13	-0.09	-1.00	0.32				
	Autonomy	0.06	0.11	0.04	0.56	0.57				
	Payment	0.35	0.10	0.25	3.42	0.00*				
	Job Security	0.05	0.10	0.03	0.50	0.62				
	Feedback	-0.11	0.13	-0.08	-0.87	0.38				
	Colleague Support	0.05	0.14	0.03	0.37	0.71				

Table 6 summarises the regression analysis with job demands and job resources as predictors of the dominating conflict handling style. Entry of job demands and job resources produced a statistical model ( $F_{(10,194)} = 4, 02$ ;  $p = 0, 00$ ;  $\Delta R^2 = 0, 13$ ), accounting for approximately 17% of the variance. More specifically, it seems that workload ( $\beta = -0, 16$ ;  $t = -2, 23$ ;  $p \leq 0, 05$ ), crisis management ( $\beta = -0.16$ ;  $t = -1, 95$ ;  $p \leq 0, 05$ ) and payment ( $\beta = 0.25$ ;  $t = 3.42$ ;  $p \leq 0, 05$ ) predicted the use of a dominating conflict handling style.

To determine whether job demands and job resources predict the use of a compromising conflict handling style, a standard regression analysis, by means of the enter method, was carried out. The results are reported in Table 7.

Table 7

*Regression Analysis with Compromising Conflict Handling Style as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
5	(Constant)	1.62	0.43		3.75	0.00	3.51	0.39	0.15	0.11
	Workload	0.04	0.08	0.04	0.51	0.61				
	Emotional Demands	0.15	0.09	0.13	1.69	0.09				
	Time Demands	0.10	0.10	0.09	1.06	0.29				
	Crisis Management	-0.13	0.08	-0.13	-1.59	0.11				
	Interpersonal Demands	-0.03	0.10	-0.03	-0.31	0.75				
	Autonomy	0.09	0.08	0.08	1.07	0.28				
	Payment	0.10	0.08	0.09	1.27	0.21				
	Job Security	-0.01	0.08	-0.01	-0.14	0.89				
	Feedback	0.01	0.09	0.01	0.07	0.94				
	Colleague Support	0.35	0.10	0.32	3.40	0.00*				

Table 7 summarises the regression analysis with job demands and job resources as predictors of the compromising conflict handling style. Entry of job demands and job resources produced a statistical model ( $F_{(10,194)} = 3, 51$ ;  $p = 0, 00$ ;  $\Delta R^2 = 0, 11$ ), accounting for approximately 15% of the variance. More specifically, it seems that colleague support ( $\beta = -0, 32$ ;  $t = 3, 40$ ;  $p \leq 0, 05$ ) predicted the use of a compromising conflict handling style.

## DISCUSSION

The healthcare sector in South Africa is particularly vulnerable to conflict (Vivar, 2006). This is due to the nature of nurses' work, which is difficult and stressful resulting from turbulent management functions (Hipwell, Tyler & Wilson, 1989). Healthcare professionals (specifically nurses in this study) are usually so busy with patients that they do not have enough time to think about conflict (Forte, 1997). Unfortunately, conflict has an influence on patient care and every attempt should be made to improve conflict handling strategies among nursing personnel. The challenges are to create an appropriate environment which provides adequate resources and limits demands placed on nurses (McVicar, 2003). Therefore, the purpose of this study was to identify the relationships between job demands and job resources and the different conflict handling styles of nurses in public hospitals. More specifically, the objectives were to determine:

- 1) whether job demands and job resources predict the use of certain conflict handling styles and;
- 2) whether conflict handling styles play a moderating role in the relationship between job demands and job resources of nurses in public hospitals.

Regarding the first objective of this study, the results indicated no significant correlation (relationship) between the avoiding approach and job demands and job resources. This may be because nurses, who do not have a lot of experience in their particular ward, have a dependency relationship with the professional nurse in charge of the ward. They would regard the professional nurse in charge as a person with more knowledge, responsibility, authority and information than others (Vivar, 2006). This notion supports the findings of Vivar (2006) who explains that inexperienced nurses may feel uncomfortable in expressing their feelings and disagreements and may therefore, opt for silence (avoidance) in order to determine the most appropriate behaviour in the ward.

There were a number of positive relationships between time demands, feedback and colleague support and an integrating approach. This suggests that the more time nurses have to complete their tasks, the more accommodating they will be towards one another. Furthermore, when nurses receive feedback (direct results from the job that has been completed and clear

information about the effectiveness of his/her performance) the nurse is able to see the direct results of what they are doing and become more willing to work together with their colleagues to solve a problem. Furthermore, when nurses have the support of colleagues which involves acknowledgement of sharing the burdens of the job and having a close relationship with nursing colleagues, a feeling of shared equality and joint decision making is fostered. This results in a more co-operative and collaborative approach (Almost *et al.* 2010).

The results indicated no significant correlation between the obliging approach and job demands and job resources. Ting-Toomy *et al.* (1991) found that people who use an obliging approach want to sustain their relationships with others. Therefore, nurses prefer to use an obliging style so that they do not jeopardise their relationships with colleagues, irrespective of their job demands or job resources.

A positive relationship between the dominating approach and payment was found. This can be explained by the fact that the more senior and experienced a nurse is, the higher their remuneration is and their level of seniority and places them in a position of power. This notion is supported by Tabak and Koprak (2007) who state that a nurse in a higher position of authority will tend to dominate less experienced and younger nurses.

Another positive relationship emerged between the compromising approach and colleague support. If nurses feel they have support from their nursing colleagues, professional nurses in charge of the ward and matrons, they become more willing to work together to satisfy not only their own needs, but the needs of other nurses in a 'give and receive' manner. This notion is supported by McGrath, Reid & Boore (2003) that when nurses are supported by colleagues, it may relieve feelings of stress and lead to an understanding of each other's roles and the ability to discuss issues as equals with professional colleagues.

In addition to the relationships found in this study, the second objective was to investigate which job demands and/ or job resources are predictors for particular conflict handling styles. The results indicated that time demands predict the use of an avoiding approach to conflict handling. If nurses are pressured for time because of work overload, they may feel that they do not have enough time to carry out their tasks and duties. Consequently, when conflict arises, they will avoid it at all costs possibly because the conflict would take up more time than they have to spare. According to Bishop (2004) time pressure and high workloads have been identified as sources of conflict among nurses. Therefore, with little time to deal with an arising issue, conflict is avoided all together.

The results further indicated that crisis management predicts the use of an avoidance approach to handling conflict. If nurses are faced with a crisis situation that requires an immediate response to solve the issue at hand, their response will be to ignore any conflict due to the urgency of the situation. This is supported by a finding in a study by Browning, Ryan, Thomas, Greenberg & Rolniak (2007) whereby they state that when job demands are high, nurses may be restricted in decisional urgency, therefore, when a crisis occurs and nurses need to make a definitive decision, conflict will take a back seat.

The results also indicated that colleague support predicts the use of an avoidance approach. Presumably, when nurses are surrounded by supportive colleagues they will ignore the conflict in order to maintain peaceful relationships. These results are consistent with a study done by Barki and Hartwick (2001) which found that nursing colleagues were identified as a significant source of stress in the work environment but individuals may be hesitant to become involved in open discussions to resolve the situation. Therefore, when nurses have supportive and cohesive relationships with one another, conflict is likely to be ignored in order to maintain relationships with their peers.

When the integrating approach is considered, the results indicated that workload plays a significant role in the adoption of an integrating approach to handling conflict. This can be ascribed to the fact that when nurses feel overloaded, an integrative approach is used for the purpose of solving problems while involving others. According to Hendel, Fish and Galon

(2005) integration is an indication of assertiveness and cooperation. Therefore, when nurses are faced with excessive workloads this approach is beneficial as nurses can work together to deal with this challenge.

Time demands also appeared to predict the use of an integrating approach to handling conflict. This may be because nurses who are under immense time pressure seek assistance from colleagues to help ease the burden of their demanding job. According to Van der Colff and Rothmann (2009) nurses may experience stress and conflict when faced with insufficient time to perform tasks and inadequate time to meet deadlines and therefore, they rely on each other for support.

Another predictor of the integrating approach to handling conflict found in this study was job security. This can be explained by the fear that nurses may lose their jobs or that their careers may be in jeopardy and therefore, they resort to working with colleagues (including superiors) to ensure they remain employed. A study by Kelly (2004) suggested that if nurses engage in disruptive conflict it may result in their career prospects being jeopardised. Therefore, nurses opt for a collaborative approach to conflict to avoid losing their jobs.

In addition, feedback also appeared to predict the use of an integrating approach to handling conflict. Mariappan (2013) explains that feedback occurs when nurses obtain direct information about the effectiveness of their performance. When nurses work in an environment in which their superiors inform them about how they perform their duties, they may feel as if their work is appreciated and hence, they use a more collaborative approach to resolving their conflict issues. A study by Bakker and Demerouti (2008) it was found that feedback has a significant effect on work engagement. This may be because nurses who have received information from superiors about their work performance, feel more accepted in their workplace. This demonstrates a shared relationship of trust and concern for each other which reinforces the use of an integrating approach.

When collegial support was considered, it was found to be a predictor of the integrating approach to conflict handling. This may be because when nurses have support from their peers, they are

willing to work together to resolve any disputes or issues that may arise. The results of this study are in line with previous research by De Jonge and Schaufeli (1998) which found that the daily interaction nurses have with each other, buffers the effect of job demands and increases satisfaction among nursing staff. Hence, when they receive positive feedback from their colleagues, they feel motivated and part of a team which may result in nurses adopting an integrative approach.

The results further indicated that time demands predict the use of an obliging approach to handling conflict. This may be because by when nurses are under immense time pressure, instead of confronting the conflict issue head-on, they choose to accommodate the opinions of others in order to maintain positive relationships with their colleagues. This notion is supported in a study by Cavanagh (1991) which found that the use of the obliging style arises from the belief that the maintenance of harmonious relationships is more important than creating disagreements with colleagues. There is therefore a high need for the acceptance and approval of others.

In addition, the results indicated that payment predicts the use of an obliging approach to handling conflict. Nurses who are more junior in rank and who have less experience may receive less compensation than their more experienced counterparts. This may result in the junior nurses feeling the need to concede in a conflict situation in order to satisfy the needs of others who are perhaps more senior than themselves. This notion is supported in nursing literature (Pillay, 2009) which suggests that the high staff turnover of nurses in public hospitals results in a large intake of new, junior and inexperienced recruits. These lower ranked nurses may defer to more senior staff in conflict situations and hence, use the obliging approach.

It was also evident from the results that workload predicts the use of a dominating approach to handling conflict. This may be because senior nurses are given a workload that is even greater than others nurses because of their knowledge and experience. Consequently, they take on more responsibilities. According to Kunaviktikul (1994) the dominating approach is especially evident when seniority and experience are taken into consideration within the hospital hierarchy as power and authority are crucial dimensions in the way conflict is handled. A more senior nurse, with more authority, higher levels of training and years of professional experience may choose to

be more dominating and/or assertive in workplace relationships because of their superior knowledge and experience. This is consistent with a finding by Tabak and Koprak (2007) who found that more senior/long serving nurses do prefer to use the dominating approach to handling conflict.

Crisis management also appeared to be a predictor of the dominating approach to handling conflict. This can be explained by the occurrence of a life or death situation, in which the more experienced, authoritative and knowledgeable nurse's opinion would take precedence over others, suggesting that this particular approach is used by more senior and experienced personnel. The results of this study are in line with previous research done by Crabbe, Bowley, Boffard, Alexander and Klein (2004) who found that emergency room nurses feel their jobs are more demanding because of the high levels of responsibility and incidents that are often traumatic. Therefore, nurses may need to adopt a more assertive approach to dealing with these traumatic incidents.

Payment was also found to be a predictor of the dominating approach to conflict handling. Nurses who perceive their salaries to be inadequate may possibly become frustrated, angry and resentful, resulting in the use of a more forceful approach in dealing with their conflict issues. This interpretation is supported by a study by Demerouti *et al.* (2001) which found that a lack of reward (payment) is a strong predictor of stress as it reflects an imbalance between costs and gains. This may become an increasing source of frustration and distress for nurses and may therefore, lead to increased anger and the adoption of a more aggressive stance by nurses.

The results further indicated that colleague support predicts the use of a compromising approach to conflict handling. Nurses who feel valued and appreciated by their fellow colleagues, are less likely to engage in a negative manner when dealing with conflict. Almost *et al.* (2010) found that nurses who feel they are treated with respect and fairness, work as a unit in a positive environment that has less conflict. Therefore, emphasising positive relationships will result in nurses using a 'give-and-take' approach to dealing with their conflict situation.



## **PRACTICAL AND SCIENTIFIC IMPLICATIONS**

In previous studies job demands have been found to impact on nursing staff, unless job resources are sufficient to deal with their demanding role (Van den Tooren *et al.* 2011; Bakker, Demerouti, Hakanen & Xanthopoulou, 2007). The present study has practical implications for nurses working in public hospitals. The findings imply that when nurses experience fewer time demands when performing their tasks, they become more accommodating. Hospital management should be aware that in order to reduce conflict, more time needs to be allocated to nurses to perform their daily tasks. Nursing managers need to continuously address the nursing shortage by constantly reviewing the hospital's staffing strategy and workforce planning process to allow for an increase in staff. A previous study (Unruh & Nooney, 2011) has also suggested that improving staffing levels will have a positive impact on patient outcomes.

When job resources such as colleague support and feedback are present, conflict may be reduced as nursing staff are more likely to adopt an integrating approach to settling disputes between themselves and other nursing colleagues. Providing nurses with more organisational support can be a useful resource to reduce their levels of stress and conflict. This can be achieved by recognising and/ or rewarding nurses for their contributions by providing formal and informal feedback that illustrates management's appreciation of nurses and their daily duties (Chou *et al.* 2012).

Furthermore, working relationships between nurses and their colleagues are of critical importance in the nursing profession. Hospitals would be advised to provide training on how nurses can work together as a team to provide better support to one another which would hopefully result in better patient care. Nursing managers need to be mindful of the need to create sound relationships between themselves and their subordinates by holding regular meetings that offer nurses the opportunity to interact with their peers in an informal and relaxed atmosphere.

## **CONCLUSION**

In summary, nurses experience excessive staff shortages. As a result job demands are high and in many instances job resources are scarce. In particular, the demands of the job, in the present study, include workloads, emotional demands, time demands, crisis management and interpersonal demands. With regard to job resources, autonomy, payment, security, feedback and colleague support were analysed. One demand stood out in particular: time demands. The demands mentioned above seem to have an effect on the approaches to conflict adopted by nurses in this study. The findings relating to the prediction of particular conflict handling approaches have been very enlightening. The use of the Rahim's Organisational Conflict Inventory - II (ROCI-II) and the self-developed job characteristics instrument made it possible to establish the relationship between conflict handling approaches to job demands and job resources. It also showed how each characteristic predicted certain approaches to conflict handling used by nurses in public hospitals. This study specifically found that time demands predicted the use of the avoiding, integrating and obliging approaches, whereas colleague support predicted the use of the avoiding, integrating and compromise approaches. As mentioned above, nurses may adopt a positive or negative approach to conflict handling depending on the demands they experience and the resources they have at their disposal.

## **LIMITATIONS AND RECOMMENDATIONS**

Although this study provided enlightening results, certain limitations need to be mentioned. The first limitation is the use of a cross-sectional survey design, which makes it difficult to prove casual relationships. This implies that no tangible decision can be made regarding cause-and-effect relationships. However, the relationships and predictions did prove to be sufficient in this study. Another limitation is the language of the questionnaire which was only offered in English. This may have had an influence on the nurses' understanding of some questions and perhaps had a negative impact on their responses. In addition, the small sample size (N=205) may be regarded as a limitation as the larger the sample, the more accurate the results. The findings of this study cannot, therefore, be applied to all nurses in public hospitals in South Africa.

However, according to Struwig and Stead (2001) sample sizes of 150-200 can still provide an acceptable reflection of the population.

Although limitations have been specified in this study, insightful results were nonetheless obtained, and a number of recommendations can be made based on these results. Firstly, it must be acknowledged that nursing is a stressful occupation and that conflict exists amongst nurses in everyday situations. How nurses chose to resolve conflict is the significant factor. According to Almost *et al.* (2010) conflict is inevitable and creating work environments which focus on positive relationships with colleagues will facilitate the retention of nurses in the context of the current nursing shortage crisis.

Time demands place increased pressure on nurses because of their heavy workload and the shortage of staff. Providing basic education in time management skills would empower nurses to use these skills to deal effectively with patients while still carrying out their daily tasks and duties efficiently.

Job demands have proven to impact negatively on nurses' experiences within their jobs and the ability for nurses to informally vent their anger, sadness and/ or frustration that arise from experience with difficult patients, the death of patients, or conflict with colleagues is also important. This could take the form of counseling or meeting colleagues in order to help them deal with difficult situations. Supervisors can also pay more attention to recognising and rewarding nurses' contributions - both formally and informally.

The results also indicated that colleague support strongly predicts the use of some positive conflict handling approaches such as the integrating and compromising styles. If nurse supervisors and nurse managers could foster a culture of support, by means of teamwork, sharing, appreciation and recognition, conflict may be significantly reduced in public hospitals. The enhancement of colleague support could take the form of participation in shared decision making which would enhance the nurse's feelings of community and meaningfulness of their jobs because of the support from their superiors and peers.

## **RECOMMENDATIONS FOR FUTURE RESEARCH**

This study focused on hospital nurses in the Gauteng area in smaller regional hospitals (level 1 and level 2 hospitals only). Replicating this study in other parts of the country, in larger hospitals such as level 3 - academic hospitals and with a larger number of participants would strengthen and add to the study. The present study should be replicated by looking at the seniority of nurses and their conflict handling approaches in the context of job demands and job resources and investigating how this affects the relationship with other staff nurses.

Another recommendation for future research would be to include those nurses who are at the forefront of healthcare. These are the nurses who work in clinics and are the healthcare workers who make initial contact with the public regarding their health.

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## **CHAPTER 4**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

This chapter consists of conclusions regarding the literature review and the empirical study according to the specific objectives. The limitations of the study are addressed, followed by recommendations for future research and for the profession that are based on the research findings.

#### **4.1 CONCLUSIONS**

##### **4.1.1 Conclusions regarding the literature review**

The first objective of both articles (Chapters 2 and 3) was to conceptualise conflict, the different conflict handling styles and the variables (job demands and job resources) that may impact on the use of the conflict handling styles. In the literature review, various articles were reviewed in order to arrive at a deeper understanding of the complex issues associated with conflict and the effect of job demands and job resources within the nursing environment. From the literature, it became evident that nursing is a complex profession (Eager, Cowin, Gregory & Fritko, 2010) which deals with interpersonal relationships between nursing colleagues, the multidisciplinary team, support staff and patients (Hillhouse & Adler, 1997). In addition, Van der Colff (2005) mentions that hospitals are experiencing staff shortage, inadequate compensation, colleagues who do not perform their tasks and demotivated co-workers. These difficulties are coupled with an increase in job demands (e.g. increased workload, time demands and interpersonal demands), which all contribute to a stressful profession (McNeese-Smith & Nazarey, 2001). As a result of these complex situations and the challenges of dealing with limited job resources as well as an increase in job demands, conflict is bound to occur (Gerardi, 2004).

Trying to handle conflict is a challenging and complicated task as there is no ‘single’ style that is suitable for unique conflict situations (Friedman, Tidd, Currall & Tsai, 2000; Vivar, 2006). However, in order to investigate the management of conflict in a South African nursing environment, this research used the Rahim (1983) conflict model, which is based on five conflict handling styles.

The first objective of this study was to investigate how conflict handling styles, job demands and job resources are conceptualised according to literature. In this study, conflict was conceptualised as “a disagreement between two or more parties who perceive their goals and objectives as being incompatible with others” (Al-Hamdan, Norrie & Anthony, 2014). It is important to keep in mind that the nursing profession is demanding as it requires nurses to interact with a variety of individuals, colleagues, patients and families in a highly stressed environment, which may result in conflict (Reeves, 2005). Therefore, in order to handle conflict, people adopt a variety of conflict handling styles. Conflict handling styles have been conceptualised as behavioral responses that are used by individuals to deal with conflict situations (Hocker & Wilmot, 2010). The conflict handling styles identified by Rahim (1983) are the avoiding, integrating, obliging, dominating and compromising styles. In order for nurses to reduce conflict, factors that may contribute to conflict including job demands and job resources should be identified (Iglesias & Vallejo, 2012). Job demands have been conceptualised as factors that cause stress in a work environment and include lack of time to complete tasks, dealing with a crisis situation and/ or having an excessive amount of work to complete (Bakker, Demerouti & Schaufeli, 2003), while job resources are those aspects present in the work environment that encourage growth and development which include social support, performance feedback, autonomy and payment (Bakker & Demerouti, 2007). Therefore, job resources are features present in the work environment that individuals can use to cope with their job demands at work.

#### **4.1.2 Conclusions regarding the empirical study**

The second objective of this study was to investigate the most and least employed conflict handling styles among nurses in public hospitals. The results of this study indicated that the *integrating* style was the style most employed by nurses when faced with a conflict situation. It

is evident from the research that when nurses use the *integrating* approach, it demonstrates that both parties are willing to work together and to consider the needs, goals and objectives of the other party. This is indicative of a mature approach and is seen as the 'ideal' way to settle disputes. Tomey's (1995) findings concur that the *integrating* approach is considered to be the most effective conflict handling style. Results further indicate that the *dominating* style was least employed by nurses working in public hospitals. Skjorshammer (2001) states that this approach involves the use of power and therefore, results in a 'winner' and a 'loser'. Hesketh, Duncan and Estabrooks (2003) state that if nurses employ the *dominating* style, it may create a stressful and unproductive work environment. Thus, Thomas (1992) concludes that nurses who are exposed to unproductive work relations may ultimately leave the profession.

The third objective was to investigate if differences in accordance to various demographic groups exist in the experience of different conflict handling styles among nurses. The results indicated statistically significant differences between *qualification level, job level, years in career* and *years working in hospital* with regard to conflict handling style. It was significant that nurses with a lower qualification level, were more prone to avoid conflict than nurses with a higher qualification who were more prone to using an integrating approach. A study by Kaitelidou *et al.* (2012) supports the findings of this study by confirming that multiple levels of education exist among nurses in hospitals which explains the use of the avoidance approach for nurses with a lower education level. Furthermore, statistical differences were found in *job levels* as the more senior nurses, namely matrons and professional nurses, made use of the integrating style while lower ranked nurses (e.g. enrolled and auxiliary) used the avoiding style when dealing with a conflict situation. The results indicated that the more senior a nurse is, the more likely she is to opt for the integrating approach. This is corroborated by the findings of a study by Al-Hamdan, Shukri and Anthony (2011) who found that the more senior a nurse is; the more likely he/she is to opt for the integrating approach. The results further indicated statistical significance according to *years in career*. It can be concluded that nurses that have worked for less than 10 years in their career are more likely to compromise in a conflict situation. These findings contradict the results of a study done among registered nurses in Mississippi by Whitworth (2008) who found that the more experience nurses had, the greater their use of the accommodating style. Moreover, *years worked in the hospital* also showed statistical

significance regarding the avoiding style since nurses who had worked in their particular hospital between 0 and 5 years tended to ignore and avoid conflict situations, while participants who had worked in their respective hospital for between 11 to 15 years, tended to use the dominating approach. Thus, one can conclude that nurses who work in a hospital for a long time (e.g. more than 11 years) become more forceful in their approach to conflict. Tabak and Koprak (2007) support this statement by mentioning that more long serving nurses do prefer to use a dominating style to resolve conflict situations.

The fourth objective of this study was to investigate the relationship between job demands, job resources and the different conflict handling styles among nurses. Product moment correlations indicate that *time demands*, *feedback* and *colleague support* are positively related to the integrating style. It can, therefore, be concluded that for nurses to successfully achieve their work goals, they require sufficient time to complete their tasks, support from colleagues and regular feedback on their performance (Bakker & Demerouti, 2008). A positive relationship was found between the dominating approach and *payment*. One may conclude that nurses who earn higher salaries are also more senior in rank and therefore, are more authoritative in a conflict situation. This finding is supported by Tabak and Koprak (2007) who state that a nurse in a higher position of authority will tend to dominate less experienced and younger nurses. Another positive relationship that emerged from the study is the relationship between the compromising style and *colleague support*. A study by McGrath, Reid & Boore (2003) mentions that nurses who are supported by their colleagues, may experience reduced stress levels. The outcome is an understanding of one another which allows for nurses to discuss issues with each other in a professional manner. Therefore, it can be concluded that when colleague support is high among nurses, conflict is likely to be diminished as nurses' compromise with one another during a conflict situation.

The fifth objective of this study was to investigate whether job demands and job resources predict the use of certain conflict handling styles among nurses. The results indicated that *time demands*, *crisis management* and *colleague support* predict the use of an avoiding style. According to Bishop (2004) time pressure has been identified as a source of conflict among

nurses and it can be assumed that when nurses have little time to deal with an arising issue, they avoid conflict altogether. Browning, Ryan, Thomas, Greenberg and Rolniak (2007) state that when job demands (e.g. crisis management) are high, nurses become restricted in their decisional urgency. Therefore, when a crisis occurs and nurses need to make a definitive decision, conflict will take a back seat. Barki and Hartwick (2001) state that interpersonal relationships are a source of stress in the work environment; hence, individuals may be less inclined to become involved in open discussions to resolve the situation in order to maintain the support of colleagues.

When the integrating approach was considered, the results indicated that *workload*, *time demands*, *job security*, *feedback* and *colleague support* play a significant role in the prediction of an integrating style. High *workloads* are common within the nursing profession (McNeese-Smith & Nazarey, 2001). Therefore, it can be assumed that when nurses are overloaded with work, choosing an integrating approach may be the best option as working together may lighten their own workload. Furthermore, nurses who are faced with insufficient *time* to perform their duties, often rely on each other for support, thus explaining the use of the integrating approach (Van der Colff and Rothmann, 2009). *Job security* predicted the use of the integrating approach which suggests that in order to remain employed, nurses may be forced to work together with others to avoid sabotaging their own job or career prospects (Kelly, 2004). In addition, when nurses receive *feedback* from their superiors, it creates a feeling of trust and concern for one another which results in nurses' who work together using the integrating approach. *Colleague support* has been found to predict the use of an integrating approach in this study. This may be explained by De Jonge and Schaufeli (1998) who argue that support from fellow colleagues allows nurses to view their job as less demanding and less stressful, which results in the use of a more collaborative approach to deal with a conflict situation.

The results further indicated that *time demands* and *payment* predict the use of an obliging style. Nurses that are pressed for time, often choose to accommodate the opinions of others in order to maintain harmonious relationships with their colleagues (Cavanagh, 1991). *Payment*, as a predictor of the integrating style is supported by Pillay (2009) who suggests that high staff

turnover results in a large intake of new, junior and inexperienced recruits. Therefore, lower ranked nurses may defer to more senior staff in response to conflict, and hence, they use the obliging style.

*Workload*, *crisis management* and *payment* predicted the use of the dominating style. High *workload* is especially prevalent in senior levels of the nursing hierarchy (Kunaviktikul, 1994) as these nurses have more responsibility. They also have greater knowledge and experience. Therefore, it may be concluded that seniority may require a more dominating approach to handling conflict as decisions need to be made and work tasks need to be completed. *Crisis management* also predicted the use of the dominating approach. These results are in line with previous research done by Crabbe, Bowley, Boffard, Alexander and Klein (2004) who found that emergency room nurses feel their jobs are more demanding because of greater responsibility and often experience traumatic incidents. Thus, nurses use a more assertive approach in dealing with traumatic incidents. *Payment* as a predictor of the dominating style can be attributed to nurses who perceive their remuneration as being insufficient. This may lead to anger, frustration and confrontation which results in a more dominating approach when handling a conflict situation (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

Results further indicated that *colleague support* predicts the use of a compromising style. This finding is in line with a study by Almost, Doran, McGillis-Hall and Spence Laschinger (2010) who found that nurses who feel they are treated with respect and fairness, work as a unit in a positive environment with less conflict. It can be concluded that when nurses are guided and supported by one another they are willing to work together to reach a consensus that is acceptable to all parties.

Although this study provided an insightful look into conflict among nurses in public hospitals, there are certain limitations in this study which need to be mentioned.



## 4.2 LIMITATIONS

The relative small sample ( $N=205$ ) and low response rate (48%) can be considered a limitation of this study as a larger sample size would have yielded more accurate results. As a result of the size of the sample used in this study, differing demographic groups were not included equitably, which may have impacted on the results. A further limitation was obtaining permission for the research to be conducted within public hospitals in South Africa, specifically in the Gauteng area. Contacting departmental heads at a provincial level was a hindering factor in receiving a swift response. Bureaucratic procedures and 'red tape' prevented permission for the research to be conducted. The different hospitals had different procedures that had to be followed in order for the research to take place, which hindered the process of collecting the data from participants.

Another limitation is that the questionnaire was only in English, which may not have been the home language of many nurses who completed the questionnaire. Incorrect interpretation or misunderstanding of some questions could have possibly caused nurses to answer incorrectly. Furthermore, another limitation worth mentioning is that, although anonymity was guaranteed and all precautions were taken into consideration regarding the ethics of the research, nurses may have suspected that they could be identified and that their answers would be revealed to management, causing nurses to answer the questionnaire inaccurately and untruthfully.

Furthermore, the research was only conducted in three public hospitals in Gauteng and the results cannot be generalised and may not be applicable to all public hospitals in South Africa or any other province. In addition, it is worth mentioning that this study was conducted in level one and level two hospitals, no level three hospitals (academic) participated in this study.

Regardless of these limitations, the present study has significant implications for nurses in public hospitals in the understanding of the dynamics of conflict and for future research in this area in general.

### **4.3 RECOMMENDATIONS**

Based on the results of this study, the following recommendations for future research and the profession can be made.

#### **4.3.1 Recommendations for future research**

The nursing profession is a critical component of the healthcare industry in South Africa and with the mounting shortage of staff, the retention of skilled nurses in public hospitals throughout South Africa is crucial. The understanding of conflict among nurses and its impact on the organisation, its employees and patients is a significant challenge for the healthcare sector. The addressing of conflict in future research is highly recommended, particularly research that considers different cultural groups.

Future research needs to focus on the determinants of conflict and the relationship between conflict, job demands and job resources and variables such as work engagement and burnout. A comparative analysis of conflict between public and private hospital nurses could be conducted, as private hospitals appear to have fewer issues regarding job resources and may experience fewer challenges because of higher compensation and less severe staff shortages.

In addition, it is recommended that increasing the sample size would provide better insight into similar groups in the healthcare sector. Also, translating the questionnaire into indigenous languages could potentially lead to better understanding and interpretation of the questions.

It is also recommended that incorporating level 3 academic hospitals could have a significant impact on the results. Level 3 hospitals may have better financial support from government, larger staff contingents and better resources. The comparison of the different levels of hospitals may result in a deeper understanding of the conflict phenomenon.

### **4.3.2 Recommendations for the profession**

Riahi (2011) states that it is well documented that nursing is a difficult and stressful profession that is characterised by excessive workloads and staff shortages which create an environment that breeds conflict. It is therefore essential that hospitals invest in interventions for managing conflict among nurses and that management find ways in which to deal with high job demands and limited resources.

Job demands and job resources may have a significant effect on conflict within a public hospital environment. It is, therefore, recommended that public hospitals invest in appropriate interventions that educate and training employees in how to deal with conflict in the workplace. Interventions could, for example include encouraging nurses to discuss their disagreements openly with nursing managers or a human resource practitioner who is unbiased and willing to resolve any conflict in a professional manner.

A training programme could be developed that teaches nurses to work harmoniously as a team. By using these skills, they would be able to enhance the support of colleagues and make better use of limited resources. The training programme should identify alternative ways in which to manage conflict and how resources (e.g. colleague support) can be used to provide better care for patients. Findings by Cummings, Hayduk and Estabrooks (2005) suggest that investing energy in relationships with nurses will equip them to affect the health and wellbeing of their colleagues and patients positively.

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