

**Contextualising work-family conflict, social support and gender ideologies of
professional/registered nurses in the Cacadu District, Eastern Cape**

A thesis submitted in fulfilment of the requirements for the degree of

MASTER OF ARTS IN RESEARCH PSYCHOLOGY

RHODES UNIVERSITY

By

RICHENDA KOEBERG

December 2014

ABSTRACT

The focus of this study was to investigate work-family conflict, social support and gender ideologies of professional/registered nurses in the South African context, specifically within the Cacadu District (Eastern Cape). The study had four aims: (a) to investigate the construct validity of the measuring instrument, (b) to investigate the relationship between social support provided by family and family interference with work (FIW), (c) to ascertain the influence of shift work on perceived work-family conflict, and lastly, (d) to determine whether there is a difference between the number of children in households and nurses' perceptions of work-family conflict.

A quantitative research design was used in the study. The sample (N = 106) was taken from five district hospitals in the Cacadu District, Eastern Cape. The measuring instrument consisted of three scales, namely the Multi-dimensional Work-Family Conflict Scale (Carlson, Kacmar, & Williams, 2000), the Social Support Questionnaire (Sarason, Sarason, Shearin, & Pierce, 1987), and an adapted Gender Ideology Scale (Tsai, 2008).

The results indicated that the construct validity of the Multi-dimensional Work-Family Conflict scale was satisfactory. However, analysis of the Social Support Questionnaire and Gender Ideology scales both suggested that these scales have not been validated for use with diverse samples outside the contexts in which they were developed. The results also indicated that there is a relationship between social support provided by families and behaviour-based family interference with work. Additionally, there appeared to be a difference between the shifts worked by nurses and their perceived work-family conflict, except for strain-based work interference with family. And lastly, the only significant difference between the number of children in the household and work-family conflict was reported for strain-based work interference with family.

The implications of the results for future research suggest the importance of developing and validating work-family conflict, social support and gender ideology scales that are dependent on the context of the research. In so doing, the constructs of the scale are made

meaningful. Additionally, the findings provide preliminary evidence of tailoring work-family initiatives that address the needs of the nursing profession and the context of healthcare institutions.

Table of Contents

CHAPTER 1	1
INTRODUCTION AND ORIENTATION	1
1. Chapter preview	1
2. Work-Family Conflict.....	1
3. Nursing profession and work-family conflict.....	4
4. Family in the South African context.....	5
5. Research Aims	5
6. Methodology	6
6.1. Research design	6
7. Target population	7
7.1. Sampling Technique	8
8. Data collection	8
9. Data Analysis	9
9.1. Descriptive statistics.....	9
9.2. Analysis of measuring instrument.....	9
<i>Reliability Analysis</i>	9
<i>Factor Analysis</i>	10
9.3. Inferential statistics.....	10
10. Ethical Considerations	10
11. Chapter Division.....	11
CHAPTER 2	12
LITERATURE REVIEW.....	12
1. Introduction.....	12
2. Rationale	12
2.1. Gaps in work-family conflict research.....	13
3. Work-family conflict.....	14
3.1. Defining work-family conflict.....	14
3.2. Bi-directional work-family conflict	15
3.3. Multi-dimensional work-family conflict	16
3.4. Work-family conflict and role salience	18
4. Work-family conflict, culture and gender ideologies.....	21

4.1. Work-family conflict and cultural context.....	21
4.2. Work-family conflict and gender ideology	24
5. Consequences of work-family conflict.....	27
5.1. Coping mechanism of work-family conflict – Social support antecedent.....	29
6. Nursing Profession in South Africa	33
6.1. Conceptual framework for studying nursing in South Africa	35
6.2. Work environment and characteristics	37
6.3. Human resource challenges.....	41
7. The Family Role.....	42
7.1. Defining family and household	43
7.2. Characteristics of African family life.....	46
7.3. Gender role framework and family.....	47
7.4. Family and division of labour	49
8. Cacadu District Municipality.....	51
8.1. Cacadu labour force	52
8.1. Cacadu household size	53
9. Conclusion	56
CHAPTER 3	57
METHODOLOGY	57
1. Introduction.....	57
2. Research aims.....	57
3. Research Design.....	59
4. Variables.....	60
5. Quality of research.....	60
5.1. Validity.....	60
5.2. Reliability	61
5.3. Measuring instruments	62
6. Sampling.....	64
6.1. Sampling Technique	64
6.2. Sample	64
7. Statistical Analysis.....	67
7.1. Descriptive statistics.....	67
7.2. Questionnaire analysis	68
7.3. Inferential statistics.....	70

8. Ethical Considerations.....	71
9. Conclusion	72
CHAPTER 4	73
DATA ANALYSIS	73
1. Introduction.....	73
2. Descriptive statistics of scores on scales.....	73
2.1. Mean, minimum and maximum scores and standard deviation of variables.	73
2.2. Distribution Analysis.....	76
Distribution of Gender Role Ideologies.....	80
3. Questionnaire analysis	81
3.1. Reliability analysis	81
3.2. Confirmatory factor analysis.....	83
4. Inferential Statistics	86
4.1. Correlations	86
4.2. Social support from family and forms of FIW	89
4.3. Shift work and forms of WIF and FIW	90
4.4. Number of children in household and multidimensional work-family conflict.....	94
5. Conclusion	96
CHAPTER 5	98
DISCUSSION.....	98
1. Introduction.....	98
2. Descriptive statistics	98
2.1. The gendered profession and its implications.....	98
2.2. Multi-dimensional work-family conflict	99
2.3. Social support	103
2.4. Gender ideology.....	105
3. Construct validity of measuring instrument.....	105
3.1. Multi-dimensional scale	106
3.2. Social support questionnaire	107
3.3. Gender ideology scale	108
4. The work domain: shift work, WIF and FIW	108
5. The family domain: Children in household and work-family conflict	109
6. Conclusion	109
CHAPTER 6	111

CONCLUSION.....	111
1. Introduction.....	111
2. Research literature	111
2.1. Theories guiding this research	111
3. Methodology and analysis	112
<i>Reliability of measuring instrument in present research context</i>	112
<i>Validity of measuring instrument in present research context</i>	112
<i>Hypothesis testing</i>	113
4. Strengths and limitations	115
Reference list	117
Appendix 1	134

List of Tables

Table 1: Geographical Distribution of the Population of South Africa Nursing Manpower (2012)	34
Table 2: Eastern Cape Quarterly Labour Force Survey 2013 (Quarter 1)	52
Table 3: Cacadu District Municipality Household Size by Population	54
Table 4: Cacadu District Marital Status by Gender and Population Group	55
Table 5: Demographic Information of Research Sample	65
Table 6: Means, minimum and maximum scores, and standard deviation of variables	74
Table 7: Reliability analysis of measuring instrument: multi-dimensional work-family conflict, social support questionnaire, and gender ideology scale	82
Table 8: Confirmatory factor analysis.....	84
Table 9: Satisfaction with social support factor analysis	85
Table 10: Gender ideology scale factor analysis	86
Table 11: Correlation analysis of measuring instrument.....	87
Table 12: Relationship between SSQ family and forms of FIW	90
Table 13: Distribution of scores on multi-dimensional work-family conflict scale based on the shift of PNs.....	91
Table 14: Distribution of scores on multi-dimensional work-family conflict scale based on the number of children in the household	94

List of Figures

Figure 1: Dimensions of work-family conflict	2
Figure 2: Role identity theory premise	19
Figure 3: Social support as antecedent of work-family conflict.....	30
Figure 4: Age distribution of Registered Nurses	38
Figure 5: Percentage distribution by gender of type of intergenerational households	45

Figure 6: Marital status by gender and age group	47
Figure 7: Geographical coverage of Cacadu District.....	51
Figure 8: Distribution of Time-based WIF.....	76
Figure 9: Distribution of Time-based FIW.....	77
Figure 10: Distribution of Strain-based WIF	78
Figure 11: Distribution of Strain-based FIW	78
Figure 12: Distribution of Behaviour-based WIF.....	79
Figure 13: Distribution of Behaviour-based FIW.....	79
Figure 14: Distribution of SSQS	80
Figure 15: Distribution of Gender Ideologies.....	81
Figure 16: Number of children and strain-based WIF	96

Statistical Abbreviations

IV:	independent variable
DV:	dependent variable
\bar{X} :	mean
<u>SD</u> :	Standard deviation
p :	probability level
α :	alpha
r :	correlation coefficient
W :	Wilcoxon rank sum test
H :	Kruskal-Wallis rank sum test
χ^2 :	Chi-square statistic
df:	degrees of freedom
RMSEA:	root mean square error of approximation

ACKNOWLEDGEMENTS

“Cultivate the habit of being grateful for every good thing that comes to you, and to give thanks continuously. And because all things have contributed to your advancement, you should include all things in your gratitude.” — Ralph Waldo Emerson

Firstly, I want to give thanks to God for giving me the strength, wisdom, and courage to complete this process.

To my supervisor, *Bernadette King*, I sincerely thank you for your guidance, support and encouragement during this research journey. Your feedback and caring advice go above and beyond the scope of this project. I appreciate the confidence you have in me as a researcher and early career academic.

To the University, Dean of Humanities, and Head of the Psychology Department, thank you for supporting me and believing that I have the potential to further my studies.

To my family, partner and friends, thank you for your encouragement, your love, and for keeping me grounded during this process.

CHAPTER 1

INTRODUCTION AND ORIENTATION

1. Chapter preview

The purpose of this chapter is to provide an overview of the present study. Therefore, the researcher will outline the background of work-family conflict research, the context of, and rationale for, the present study as well as the methodology employed.

2. Work-Family Conflict

Work and family roles have traditionally been divided among gender lines. Generally, men were the breadwinners and women were responsible for household duties and caring responsibility (Beauregard, Ozbilgin, & Bell, 2009). This division was underpinned by socially constructed roles and respective identities. The domains in which an individual's roles existed contributed to institutionalising them and defining which behaviours were socially appropriate or inappropriate (Ashforth, Kreiner, & Fugate, 2000; Shumate & Fulk, 2004). Changing family structures and the increased participation of women in work resulted in a shift in traditional gender roles. This has brought with it challenges with regard to organising work and family responsibilities (Byron, 2005). One of the dominant concepts arising from these changes has been work-family conflict.

The study of work-family conflict is based on Kahn, Wolfe, Quinn and Snoek's (1964) inter-role conflict. These authors (Kahn et al., 1964) argued that inter-role conflict exists when the demands from one role impede on responsibilities in another role. Therefore, work-family conflict has essentially been defined as "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). From this definition of work-family conflict, one could

assume that the impedance of one role (work) to the next (family), and vice versa, is what creates the conflict in the work-family interface.

Research on work-family conflict has allowed researchers to identify directionality and sources of conflict (figure 1). Greenhaus and Beutell (1985) proposed that work-family conflict consists of two distinct domains, thereby highlighting the directionality of this inter-role conflict. The direction of work-family conflict can be categorised by either work interfering with family (WIF), or family interfering with work (FIW) (Bernas & Major, 2000; Frone & Rice, 1987; Greenhaus & Beutell, 1985; Tingey, Kiger, & Riley, 1996; K. J. Williams & Alliger, 1994). For example, if the direction of inter-role conflict is experienced from work to family (i.e. WIF), it proposes that demands and responsibilities in the work domain impose on the demands and responsibilities of an individual in the family domain (and vice versa for FIW).

		<u>Direction of conflict</u>	
		Work interfering with family	Family interfering with work
<u>Sources of conflict</u>	Time	Time-based Work interfering with family	Time-based Family interfering with work
	Strain	Strain-based Work interfering with family	Strain-based Family interfering with work
	Behavioural	Behavioural-based Work interfering with family	Behavioural-based Family interfering with work

Figure 1: Dimensions of work-family conflict

(Carlson et al. 2000)

In addition to the direction of work-family conflict, researchers have also identified sources of conflict: time-based, behaviour-based, and strain-based conflict (Greenhaus & Beutell, 1985). Subsequently, researchers (Carlson, Kacmar, & Williams, 2000; Premeaux, Adkins, & Mossholder, 2007) have developed a multi-dimensional work-family conflict model, which takes into account the directionality (WIF and FIW) and sources (time-, strain-, behaviour-based) when investigating this phenomenon.

Some work-family scholars (e.g., Clark, 2000 and Kirchmeyer, 2000) have argued for a shift from a *conflict* model to a *balance* model when researching the work-family phenomenon. Work-family balance has attempted to redefine the work-life interface and in so doing has positioned itself as a concept implying an absence of conflict between the various roles which an individual plays (Caproni, 2004). Adopting the ‘balancing two lives’ (Pillay, 2012, p. 142) approach where, for example, a woman attempts to balance her roles as a mother and a professional, may be problematic. Caproni (2004) maintained that researchers need to think critically about using “balance” when addressing the work-life interface, because it prompts a goal-oriented approach to an individual’s life. In other words, the goal (e.g. balance) assumes that people have a “great deal of choice and control over their lives, despite the fact that life is rich with unpredictability” (Caproni, 2004, p. 51). In addition, the work-family *balance* model may also be idealistic and unattainable, while in reality, individuals are in a constant state of a balancing act (Reiter, 2007). For this reason, the present study has adopted the work-family conflict model because life is unpredictable.

It should also be noted that research on the work-family interface has been dominated by a western understanding of what constitutes work and family (Fisher, Bulger, & Smith, 2009). Additionally, work-family research has focused primarily on the traditional nuclear families, thereby ignoring non-traditional family arrangements (Özbilgin, Beauregard, Tatli, & Bell, 2011). Consequently, the cultural relevance of measuring instruments used to identify perceived work-family conflict may be disputed in different contexts.

Therefore, research on the work-family interface has evolved to identify the dimensions and sources of inter-role conflict. It has also shifted focus to finding effective ways to *balance* work and family demands based on western notions of what constitutes work and family.

3. Nursing profession and work-family conflict

There has been an increased interest in the work-family interface since women started participating in the labour market; however, nursing has long been regarded as a female dominated profession that is aligned with the traditional family role of caregiver (Breier, Wildschut, & Mgqolozana, 2009; Maher, Lindsay, & Bardoel, 2010; Yildirim & Aycan, 2008). Inter-role conflict is premised on the competing demands of various roles, and if the socially constructed roles of women in society and those of the nursing profession are aligned, a high integration between work and family roles may exist and subsequently not experience role conflict. However, this alignment may only address behaviour-based conflict. Furthermore, Ashforth et al. (2000) argue that if high integration (i.e. minimal difference between role identities) exists between work and family roles, then the role boundaries become blurred. The challenge is for individuals and organisations to create boundaries as a buffer for spillover.

With regard to time-based and strain-based conflict, one needs to consider shift work and the work environment of the nursing profession. Wildschut and Mgqolozana (2008) and Mokoka, Ehlers and Oosthuizen (2011) have found that public healthcare nurses in South Africa are dissatisfied because of the lack of investment in the facilities (resources) to assist them in conducting their jobs and the lack of professional development. Nurses have also been found to be dissatisfied with heavy workloads and mandatory overtime due to shortages (Cortese, Colombo, & Ghislieri, 2010; Dollard, Winefield, & Winefield, 2003; Kovner, Brewer, Wu, Cheng, & Suzuki, 2006; Pal & Saksvik, 2008), reward and remuneration (Pillay, 2009), relationships at work, impact of values, and image of nursing (Mokoka et al., 2011). These factors may impact on how time-based and strain-based work-family conflict is perceived.

Acknowledging the professional identity of nurses and the alignment of this profession to the traditional role of women in the family domain, the researcher acknowledged that it may be interesting to investigate how nurses as working women may perceive work-family conflict. For this specific reason the researcher will investigate how social and cultural issues have shaped the profession, in terms of race, gender and class ideologies (Breier et al., 2009) and working conditions associated with nursing in the Cacadu District, South Africa.

4. Family in the South African context

According to Ndulo (2003) the western view of family generally refers to a marital pair who maintain a household and their children. Anyone outside this definition of family, in the western view, is considered to be “extended family”. Extended family members include grandparents, nieces, or nephews. In a diverse cultural society like South Africa, the western view of family cannot be the only view on family, because there are different household formation rules which ultimately affect living arrangements (Amoateng, Heaton, & Kalule-Sabiti, 2007). For example, African cultures place a high level of importance on communal ethos and social support; therefore, most have extended family households and living arrangements. Amoateng et al. (2007) identified four different types of household arrangements in South Africa; these are one person, nuclear, extended and non-related person households. These living arrangements are important because of the impact they have on the quantity and distribution of household labour and the responsibilities of employed individuals.

5. Research Aims

This study aims to investigate:

- The construct validity of the measuring instrument used in the present study;
- The relationship between social support provided by family members and the time-based, strain-based, and behaviour-based FIW;

- Whether shift work results in different perceived WIF and FIW among professional nurses; and
- Whether the number of children in households results in differences in perceived work-family conflict.

6. Methodology

This section outlines the research design, the sample, data collection and analysis employed in the study.

6.1. Research design

A research design is the strategic guideline used to execute a particular research (Terre Blanche, Durrheim, & Painter, 2006). This study utilised a quantitative research design, specifically a descriptive and contextual research design. It adopted a post-positivist paradigm (Robson, 2002) to investigate the work-family interface, social support and gender ideology.

Descriptive research accurately describes relationships of phenomena, in which objective truths are defined as observable or measurable outcomes (Terre Blanche et al., 2006). Various methods may be used in a descriptive design, ranging from interviews to questionnaires (Terre Blanche et al., 2006). In this study, only questionnaires were utilised. Descriptive research allows for more complex inferential analysis to be conducted, even where assumptions are made about the data (Carlucci & Wright, 2000).

Holloway and Wheeler (as cited in Roberts & Wilson, 2002) noted that contextual research designs aim to investigate phenomena in specific contexts. The context of this study is a specific profession (the nursing profession in public healthcare) and a specific geographical context (Cacadu District). The context in which the present study is conducted is important

in order to address the validity of the existing scales, because the reliability and validity of instrument scores are dependent on context (Cook & Beckman, 2006).

7. Target population

The target population for this study was registered/professional nurses in the Cacadu District of the Eastern Cape. There are five district hospitals in the Cacadu District, and they are found in two municipal clusters, namely the Camdeboo and Makana municipality clusters (Hospitals - clustering of district hospitals, 2013). The Cacadu District provides services to nine local municipal communities. The researcher decided to focus on the five district hospitals in the Cacadu District as these are strategically placed within the district to service its population. According to the District Hospital Service Package of South Africa (2002), the role of district hospitals is to provide primary health care to the district and to be a gateway to specialist treatment. The district hospitals have between “30 and 200 beds, a 24-hour emergency service and an operating theatre” (District Hospital Service Package for South Africa, May 2002, p. 3). With regard to the human resources issues of district hospitals, these institutions play a key role in providing in-service clinical training and allow for the sharing of scarce resources (District Hospital Service Package for South Africa, May 2002).

The present study focused on registered/professional nurses because of their high degree of job involvement based on their educational backgrounds, the high sense of responsibility demanded of them by the health care services in which they serve, and the skills shortage apparent in their profession. To participate in this research the registered/professional nurses needed to be

- living with a family (related or non-related), and
- have at least a child (related or non-related) and/or elderly person in the household.

Registered/professional nurses with these family variables were included because these characteristics impact on the household responsibility and division of household labour, and would consequently influence perceived work-family conflict.

7.1. Sampling Technique

The sampling technique employed for the present research was cluster random sampling of registered/professional nurses (RNs/PNs) within the five district hospitals of the Cacadu District Municipality, Eastern Cape. The cluster in this study was based on the five district hospital hubs from which this study drew its sample. O'Leary (2004, p. 162), advocated that goals of the sample are that it is:

1. Broad enough to allow you to speak about a parent population;
2. Large enough to allow you to conduct the desired analysis;
3. Small enough to be manageable.

8. Data collection

To collect the data for the study, the Eastern Cape Department of Health was contacted in 2012 to provide permission to conduct the research. The Chief Medical Officers of the five hospitals were then contacted for permission to access the hospitals. After this was granted, the researcher met with the Nursing Manager of each hospital to discuss the research and gain access to the various wards at the hospital. Data gathering commenced in the second half of 2012, which was conducted over a period of two months. Questionnaires were distributed to each ward in unmarked envelopes, with instructions and letters to the participants stating that ethical issues, such as voluntary participation, anonymity and confidentiality would be adhered to. Completed questionnaires were placed in a sealed, unmarked envelope. A date was arranged with the Nursing Manager of each hospital for the collection of the completed questionnaires. .

9. Data Analysis

The analysis of the data was computed by the statistics department at Rhodes University using *R* statistical software. First descriptive statistics were calculated, thereafter inferential statistics.

9.1. Descriptive statistics

Descriptive statistics is used to analyse and summarise observations. The purpose of the descriptive statistics was to analyse 1) frequency distributions, 2) central tendencies, and 3) standard deviations of scores of the various constructs of the measuring instrument (Tredoux & Smith, 2006). According to Terre Blanche (2006) and Pretorius (2007) the mean, variance and standard deviation are important as they form the basis of advanced inferential statistics.

9.2. Analysis of measuring instrument

Reliability Analysis

Reliability analysis was conducted to determine the internal consistency of the scales (Multi-dimensional Work-Family Conflict scale, Social Support Questionnaire, and the Gender Ideology scale) in the measuring instrument (Pretorius, 2007). The Cronbach's alpha (α) was computed through the measure of inter-item correlation between items in scale, thus measuring the internal consistency (Durrheim & Painter, 2006; Pretorius, 2007). Internal consistency refers to the "extent to which all items of the test/questionnaire are positively related to each other and to the total score" (Pretorius, 2007, p. 336).

Factor Analysis

Factor analysis is used to identify a number of factors that represents the relationship among inter-related variables (Durrheim & Painter, 2006; Pretorius, 2007). The use of factor analysis helps in determining the construct validity of the questionnaire. Pretorius (2007) proposed that, in order to test the construct validity of the measuring instrument, confirmatory factor analysis be employed. Construct validity checks whether the questionnaire measures the hypothetical construct(s) it claims to measure with which it is theoretically associated (Durrheim & Painter, 2006; Pretorius, 2007).

9.3. Inferential statistics

Inferential statistics is used to allow the researcher to make generalisations about the population based on the sample (Durrheim, 2006; Pretorius, 2007). In this study, inferential statistics were used to test hypotheses relating to the relationships between variables through correlations, two-sample tests and more than one sample tests.

10. Ethical Considerations

This section discusses the ethical considerations relevant to conducting this research. Participation in the study was voluntary. A participant letter accompanied the questionnaire, which stated that after reading the letter, completing and submitting the questionnaire served as consent to participate in the research. Both anonymity and confidentiality were upheld as participants were not required to submit any identifying information. Only the researcher and research supervisor have access to the completed questionnaires. Analysis only reported general trends and differences between groups, and were not reported on an individual basis, further ensuring confidentiality and anonymity. A summary of end general results would be provided as feedback to the Cacadu Health District.

11. Chapter Division

Chapter 1: Introduction and Overview

Chapter 2: Literature Review

Chapter 3: Methodology

Chapter 4: Analysis

Chapter 5: Discussion

Chapter 6: Conclusion

CHAPTER 2

LITERATURE REVIEW

1. Introduction

Firstly, this chapter will specify the rationale for the study in the nursing profession context. This chapter includes descriptions and definitions of work-family conflict and a review of work-family conflict literature. More specifically, it reviews literature on the role of culture, gender ideology and social support in work-family conflict. The context of the research will also be described. This description will provide an overview of the nursing profession in South Africa, the human resource challenges facing the profession, as well as family and family structures in South Africa.

2. Rationale

According to a general Scopus search, 1212 articles have been published globally since the 1970s using the keyword “work-family conflict”. Ninety of these articles have focused on the work-family phenomenon in the nursing profession. Work-family conflict literature has also been dominated by research conducted on managerial and non-managerial employees in most western and European countries (Fisher et al., 2009; Grzywacz et al., 2007; Lambert & Lambert, 2001; Yildirim & Aycan, 2008). Furthermore, De Villiers and Kotze (2003) as well as Mostert, Peeters and Rost (2011) asserted that fewer studies have focused on work-family interface in non-Western societies, such as South Africa. This agrees with results from a Scopus search, which indicated that only 45 studies had been published in South Africa with the keywords *work-family*, *work-nonwork*, *work-life*, *work-home* and *South Africa*. Therefore, some of the results of previous studies may not be professionally or culturally relevant to the current study.

To illustrate the impact of the profession on work-family interface, research conducted by De Klerk and Mostert (2010) on 2040 South African employees in four occupational groups

(police officers, construction workers, mine workers and nurses) found that occupation is a significant predictor of work-family interference. Bianchi and Milkie (2010, p. 714) identified in their analysis of work-family research in the 21st century that “work and family processes varied across cultural contexts”. Bianchi and Milkie (2010) as well as De Klerk and Mostert (2010) also argued that workplace diversity and the cultural context play an important role in accurately understanding the work-family phenomenon.

Investigating work-family conflict in the nursing context is important both for theoretical and practical purposes (Grzywacz, Frone, Brewer, & Kovner, 2006). From a theoretical perspective, work-family conflict has generally been associated with low job satisfaction (Bruck, Allen, & Spector, 2002), emotional distress and other health outcomes (Frone, Russell, & Cooper, 1992a). A study conducted on nurses (PNs) in Northern Italy and Australia found that a strong relationship exists between work-family conflict, job satisfaction and ultimately turnover (Cortese et al., 2010; Webster, Flint, & Courtney, 2009). From a practical perspective, investigating work-family conflict may provide insight into the reasons why individuals may be inclined to leave the profession, or why the presence of work-family conflict may form a barrier for not entering the profession (Greenhaus, Parasuraman, & Collins, 2001). An appreciation of the relationship between work-family conflict and job satisfaction, for example, may enable nursing managers to implement and improve support and family-friendly policies to reduce the prevalence of work-family conflict, thereby increasing job satisfaction (Cortese et al., 2010).

2.1. Gaps in work-family conflict research

The present study proposes that the literature on work-family conflict contains theoretical and practical limitations because of the utilisation of restricted samples and traditional family structures (Özbilgin et al., 2011). Given that the majority of the research conducted in this field has taken place in western and European countries, “U.S. cultural norms about the primacy of the work role and individualistic approach to work–family issues should not be viewed as the worldwide norm” (Kosseck, Baltes, & Matthews, 2011). Grzywacz et al. (2007)

also posited that the meaning and consequences of work-family conflict differ between collectivist and individualistic cultures. The present research, therefore, acknowledges the importance of the cultural and professional contexts of investigating work-family interference. The narrow group used in previous research excludes black and other ethnic minority groups, and those that may live in extended family households. As a result, this study emphasises how culture, specifically collectivist cultures, and an occupation like the nursing profession contributes to understanding work-family conflict.

3. Work-family conflict

This section discusses work-family conflict, the direction and sources of work-family conflict, and the linkage between role salience and work-family conflict.

3.1. Defining work-family conflict

For most individuals the work and family domains are the dominant domains in their lives (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). Work-family conflict is a form of inter-role conflict, where demands from one role make it difficult to meet the demands from another role (Frone & Rice, 1987; Greenhaus & Beutell, 1985; Williams & Alliger, 1994). In their analysis of work-family conflict literature, Madsen and Hammond (2013) observed that role theory and role conflict theory were seemingly used interchangeably in work-family conflict research. Role theory “refers to a set of behaviours that have socially agreed-upon functions and an accepted code of norms” (Madsen & Hammond, 2013, p. 154). It can be argued, according to the role theory, that being involved in multiple roles can lead to stressors such as work overload. Traditional role theorists, such as Katz and Kahn (1978) stated that roles have specific sets of behaviours which are expected in particular social positions (as cited in Frone & Rice, 1987). Role theory is therefore concerned with behaviour in different roles and subsequently requires attention to the context of behaviours and the importance of roles to individuals (role salience). These behaviours have generally been researched from a gendered perspective, assuming that a woman’s role is to take care of

the family and men are the providers, thus hypothesising that women experience more work-family conflict (Cinamon & Rich, 2002). On the other hand, role conflict is defined as the psychological tension created from conflicting pressure from incompatible multiple roles (Katz & Kahn, 1978). Role conflict theory is constructed from the role theory. The role conflict theory states that ambiguity or conflict in one role leads to undesirable states, such as personal conflict, which leads to difficulty fulfilling each role successfully (Grandey & Cropanzano, 1999; Greenhaus & Beutell, 1985; Madsen & Hammond, 2013; Netemeyer, Boles, & McMurrian, 1996). Madsen and Hammond (2013) postulated that role conflict theory provides a deeper understanding of work-family conflict, as it assists in understanding the forms, direction and dimension of the phenomenon.

3.2. Bi-directional work-family conflict

According to Bianchi and Milkie (2010) scholars have identified the direction (Bellavia & Frone, 2005; Byron, 2005) and dimensions (Carlson et al., 2000; Greenhaus & Beutell, 1985) of work-family conflict. Literature has identified two directions (forms) of conflict: work interference with family (WIF) and family interference with work (FIW) (Carlson et al., 2000; Frone & Rice, 1987; Tingey & Kiger, 1996; K. J. Williams & Alliger, 1994). These two forms of conflict suggest that pressures from the work (or family) role spillover into the family (or work) role. The dimensions of work-family conflict, on the other hand, refer to the nature of the source of conflict (Greenhaus & Beutell, 1985; Lapierre et al., 2008). Therefore, the direction of work-family interference can be explained by spillover, and the dimensions of work-family interference by the causes of role conflict.

Spillover is defined as the extent to which an individual's performance in one role (work) impacts on participation in another role (family) (Pleck, as cited in Bass, Butler, Grzywacz, & Linney, 2009). Spillover reflects two sets of implications, namely negative (conflict) and positive (enhancement). The negative implications of spillover are a result of stressors in one role and the transference of attitudes or moods from one domain to another (Williams & Alliger, 1994). On the other hand, positive spillover from work and family is as a result of resource enhancement (for example financial resources or support in various domains),

thereby enabling work-family balance (Grzywacz & Marks, 2000; Moen & Yu, 2000). Barling (1990) argued that spillover is an example of the open systems theory. The open systems theory suggests that work and family are systems that are not isolated and autonomous from each other (Clark, 2000; Katz & Kahn, 1978). The open systems theory states that even though there are “physical and temporal boundaries between work and family” (Clark, 2000, p. 749), imbalances in one system (i.e. work) can spillover into another, and vice versa.

Van Aarde and Mostert (2008) found that pressures from work and family domains are as a result of job responsibilities being incompatible with family responsibilities. For example, shift work is an intrinsic characteristic of the nursing profession (Monk & Folkard, 1992), therefore family time and family involvement is dependent on the shift work rotations. Based on the spillover theory, it is assumed that nurses would report higher time-based WIF than time-based FIW because their availability to their family depends on the rotations of their shift work.

3.3. Multi-dimensional work-family conflict

As mentioned above (e.g. Bernas & Major, 2000; Greenhaus & Beutell, 1985; Premeaux, Adkins, & Mossholder, 2007), the study of work-family conflict has investigated the relationship between work and family, namely WIF and FIW. Moreover, researchers such as Greenhaus and Beutell (1985) outlined three important potential sources of work-family conflict: time-based, strain-based, and behaviour based conflict.

Gutek, Searle and Klepa (1991) proposed that one way of understanding work-family conflict is from, what they termed, the *rational view*. The rational view suggests that people have a limited amount of time and energy (resources), and that various roles will impose on these resources (Cooper, Dewe, & O’Driscoll, 2001; Gutek et al., 1991). According to the rational view, then, “if most adults of both sexes spend more time in paid work than in

family work, they should report more WIF than FIW” (Gutek et al., 1991, p. 2). The basic assumption of the rational view is that the more time spent in either work or family domain, the greater the conflict an individual will perceive (Gutek et al., 1991). Research conducted by Greenhaus and Beutell (1985) supports this view, and their findings indicated that extensive time commitments to the work role would positively contribute to work-to-family conflict (WIF). As a result, there is a direct relationship between hours spent on work and the degree to which work interferes with family, and hours spent with family and family interfering with work.

Time-based conflict occurs when time spent in one role interferes with an individual’s ability to perform tasks in another role (Greenhaus & Beutell, 1985; Netemeyer et al., 1996). In the work domain, time-based conflict is positively related to the number of hours worked and time spent commuting to and from work per week, the frequency of overtime worked, irregular shift-work, and inflexibility of work schedules (Greenhaus & Beutell, 1985). In the family domain, sources of time-based conflict are concerned with the characteristics and living arrangements of the family (Bryson, Bryson, & Johnson, 1978). For example, Cartwright (1978) found that large family size is more time demanding than smaller families, and large family size is associated with higher levels of work-family conflict.

Strain-based conflict is the emotional interference of one role to the next (Cooper et al., 2001; Greenhaus & Beutell, 1985). Roles are incompatible if strains relating to one role affect the way in which the other role is performed (Greenhaus & Beutell, 1985). Strain in a role has been conceptualised as a divergence of role expectations and what is accomplished within the role (Lambert & Lambert, 2001). Role strain, therefore, contributes to strain-based conflict. Hence, Farquharson et al. (2012) maintained that role strain depletes the resources required to cope with competing work and family demands.

Behaviour-based conflict refers to behaviour that is considered effective in one domain but inappropriate in another, hence reducing an individual’s effectiveness in the role

(Greenhaus & Beutell, 1985). Ashforth, Kreiner and Fugate (2000) theorised that when the expected behaviours from work and family roles are blurred, transitioning between the roles has less affective impact. In other words, when the work and family roles require individuals to be caring they experience less inter-role conflict.

3.4. Work-family conflict and role salience

In addition to the multiple dimensions of conflict between the work and the family domain, Carlson and Frone (2003) also stated that “one important predictor of work-family interference is role involvement” (Carlson & Frone, 2003, p. 516). Role involvement, according to Carlson and Frone (2003), refers to investment of an individual’s resources (e.g., time, physical, cognitive, and emotional). Role involvement is based on the importance or identity individuals attach to the role (Michel et al., 2011). Baruch and Barnett (1986) suggested that involvement in multiple roles can produce positive effects, such as stimulation (ability to create multiple role identities), gratification (status, increased self-esteem and resources), and social validation (behavioural guidance from role). However, involvement in multiple roles sometimes has negative consequences for individuals because the different roles may have divergent sets of expected behaviours.

The role identity theory explains the link between role involvement and work-family conflict (Michel et al., 2011). Role identity theory suggests that when individuals assume social roles, they internalise socially constructed behaviour expectations associated with the social positions as role identities (Stryker, as cited in Marks, 1998). In other words, role identity is contextualised in relation to self and others. Therefore, the basis of individuals’ *selves* is a combination of all the social roles they occupy. Furthermore, role identity theory asserts that *society* impacts the *self*, which in turn influences *social behaviour* (Figure 2) (Schwartz, Luyckx, & Vignoles, 2011). According to role identity theory, society is regarded as the commitment or value-based choices of an individual (Schwartz et al., 2011). In other words, society is the “interactional and affective ties to others in a social network” (Serpe & Stryker, 2011, p. 233).

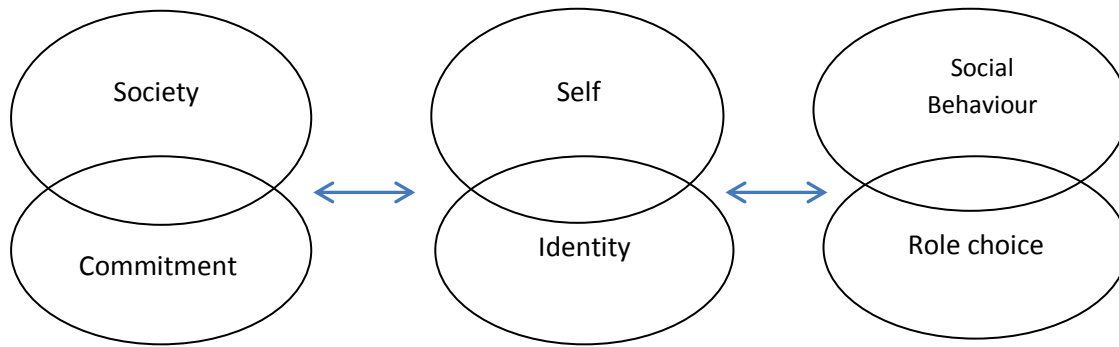


Figure 2: Role identity theory premise

Adapted from: Serpe and Stryker (2011)

In the figure above, the *self* (or combination identities) is regarded as the bridging agent between *society* and *social behaviour*. Serpe and Stryker (2011) argued that the self is multifaceted, therefore individuals will have as many identities as the sets of role relationships in which they participate. According to Whitehead and Kotze (2003) women are required to accumulate multiple roles simultaneously. These roles may include being a caregiver, a spouse, a mother and an employee, depending on their life stage (Whitehead & Kotze, 2003). Furthermore, each role is viewed as being unique in pressure and demands. Thoits (1991) maintained that the more important the role is to an individual, the more meaning, purpose and behavioural guidance is received from those roles. Thus emphasising role salience, which is defined as the likelihood that identities will be invoked in a variety of situations because of the roles socially assigned to the individual, and the expectations required to fulfil these roles (Serpe & Stryker, 2011). Role salience – also referred to as role involvement or importance – is a “person’s psychological dedication to a role and his/her intention to devote time and energy to attaining success in that role” (Winkel & Clayton, 2010, p. 337). The psychological dedication in a particular role influences an individuals’ physical and psychological availability in other roles because of the person’s involvement in multiple roles (Winkel & Clayton, 2010). Role identity theory proposes that the easier it is for individuals to fulfil and internalise the normative and behavioural expectations of roles the higher the self-esteem and well-being will be (Marks, 1998).

In the context of this study, role identity is important to conceptualise because the nursing profession is regarded as a female dominated profession and the work-related behavioural expectations are aligned with that of women in the family domain. Put differently, this theory is applicable because those who become nurses assume the behaviour assigned by society as nurturing and caring professions; in the family role they can assume those behaviours of a wife/partner, mother and caregiver. Both roles in the work and family setting perceive the nurturing aspect to be part of the identity of females. In light of this, Cinnamon and Rich (2002) asserted that researchers of role salience have failed to recognise the interdependence and relative importance of both work and family spheres. Consequently, it is assumed that in a female-dominated profession where the expected behaviours in the work sphere are aligned with those in the family sphere, individuals may have both work salience and home salience .

Although the combination of multiple roles can lead to improved well-being, it may also lead to conflict and, according to the role identity theory, problematic role identity enactment (Marks, 1998). The last important construct in the role identity theory is *social behaviour* (figure 2). According to Stryker (as cited in Serpe & Stryker, 2011), this construct is vague and difficult to measure, but could also be described as role choice behaviour. Therefore, social behaviour alludes to instances where individuals opt to meet the expectations of one particular role rather than another. Carlson and Frone (2003) asserted that role involvement can be considered from both a behavioural and psychological perspective. Thus, role salience suggests psychological and behavioural involvement in a role, as it reinforces an individual's self-identity (Greenhaus et al., 2001). Behavioural and psychological involvement in roles, therefore, differentiate between external and internal conflict in work-family interference respectively (Carlson & Frone, 2003). Carlson and Frone (2003) further suggested that the external element represents the outward behaviour exerted between the two domains, namely work and family. In other words, when external demands in one role (e.g., work schedule) inhibit or prevent participation in another role (e.g., taking care of home-related responsibilities). The former is an example of behavioural involvement in WIF. Carlson and Frone (2003) suggested that internal psychological involvement relates to the psychological preoccupation of one role (work) while within

another role (family) thus exerting internal WIF. Similarly, the internal FIW may also occur where there is psychological preoccupation with family while at work.

Carlson and Frone (2003) conducted a longitudinal study (N=1933) in New York and found that behavioural work involvement was significantly related to external WIF. The findings also indicated that behavioural work involvement was related to the internal psychological preoccupation in WIF. Carlson and Frone (2003) suggested that this internal WIF with behavioural work involvement may be because individuals become so immersed in their work that they are unable to psychologically disengage from work when they are at home. In the family domain, it was found that psychological involvement is related to internal FIW. They add that “individuals for whom family is a major source of self-identity are more likely to experience preoccupation with family while in the work domain”, therefore they are unable to engage in work tasks (Carlson & Frone, 2003, p. 530).

As mentioned earlier, work and family are regarded as the two dominant domains in an individual's life. The section above discussed the direction and sources of work-family conflict. The studies above implied that there is a positive relationship between role salience and work-family conflict when involvement is explained by the role identity theory.

4. Work-family conflict, culture and gender ideologies

This section reviewed the transferability of work-family conflict constructs in various cultures, and the influence of gender ideologies on perceived work-family conflict.

4.1. Work-family conflict and cultural context

Pal and Saksvik (2008) argued that culture is very important in conceptualising work-family conflict because culture is part of both the work environment and the individual. According to Simon, Kümmerling and Hasselhorn (2004) and de Klerkk and Mostert (2010), work-

family conflict is closely related to the profession and the cultural conditions in which the phenomenon is experienced. Gelfand and Knight (2005) asserted that work-family conflict is also a multilevel phenomenon that requires researchers to understand not only the individual and the organisation (or profession), but also the societal context in which the work-family conflict phenomenon takes place. Additionally, Gelfand and Knight (2005) maintained that the problem with work-family conflict research is that it imposes etic (or universal) constructs and measurements – developed in the West – on research conducted in culture specific contexts (or emic). According to Powell, Francesco and Ling (2009) societal or national cultures are important in understanding the work-family interface, as cultural norms and values influence the *strength* and *nature* of work and family interference. Gelfand and Knight (2005) advised that using etic constructs is a risky strategy because these constructs and measures may be missing important cultural elements which are relevant in explaining work and family cultures. For example, authors such as Fisher et al. (2009) have argued that research has shifted to work-life balance because the constructs of work-family conflict had been understood, and now the work/non-work interface requires methods to effectively balance these domains. However, Caproni (2004) insisted that work-life balance is an unachievable ideal that assumes individuals have choice and control over structural constraints, such as flexibility in the workplace and affordable childcare facilities. Moreover, in an environment such as the Eastern Cape, where the definition and composition of responsibilities of family roles has not been thoroughly explored, this research will focus on work-family conflict.

Even though work-family issues at an organisational level support family-friendly cultures to allow the integration of work and family domains, Gelfand and Knight (2005) argued that the assumptions, values and practices which constitute work-family issues may vary across different societal cultures. These cultures are generally understood through Hofstede's (1983) individualism and collectivism dimensions. Societies where the focus tends to be on the self and nuclear families are considered to be individualistic, and societies where people are embedded in a "network of social connections that include extended families and groups" are considered collectivist (Spector et al., 2007, p. 808). The African concept of *Ubuntu* reflects the interconnectedness of individuals within the community that extends

beyond self-determination (Nussbaum, 2003). For this reason it is assumed that South Africa is a collectivist society. However, according to Hofstede's approach to national cultures South Africa scores 65 in the degree of individualism, and is therefore regarded as an individualistic culture where individuals are expected to take care of themselves and their immediate families (Hofstede, 1983). Given that South Africa has undergone major social and political changes since 1983 (the advent of Hofstede's groundbreaking cultural value study), Hofstede's cultural dimensions may not represent the current situation in South Africa. As stated by Venaik and Brewer (2008) Hofstede's culture scores represent mostly white South Africans who were employees of IBM, when the survey was conducted.

Spector et al. (2007) found that people in individualistic cultures differ from those in collectivist societies in their experiences of work-family conflict. This implies that individuals from individualistic societies place more emphasis on personal achievement, tend to work excessively and may, therefore, neglect family matters in pursuit of being devoted to themselves (Spector et al., 2007). On the other hand, Spector and his colleagues maintained that individuals from collectivist societies work to support the family, and therefore put extra effort into work. The studies by Hill, Yang, Hawkins and Ferris (2004) as well as Mortazavi, Pedhiwala, Shafiro and Hammer (2009) illustrated the importance of understanding cultural influences in the work-family interface. Their research indicated that the construct of work-family interface is not culture specific and could therefore be transferred across cultures. That is, the variables of the work-family interface relate to different cultures in the same way, however the strength or magnitude of the relationships may differ between cultures. The strength and magnitude of the scores on the measuring instrument relates to the construct validity. The differing scores on the variables of work-family interference suggest that the variables "have meaning (validity) only in the context of the construct they purport to assess" (Messick, 1989, as cited in Cook & Beckman, 2006, p. 8).

Hill et al. (2004) in their investigation of work-family conflict across cultures, conducted a quantitative study on 25 822 IBM employees across 48 countries. These countries were

grouped according to individualistic and collectivist cultures, where individualistic cultures were further divided into west-developing, west-affluent and west-US (Hill et al., 2004). The primary research question for this investigation was whether work-family interface was transferable across cultures (from first world and developing countries) and gender. Even though the work-family model fitted the data of the four cultural groups, Hill and his colleagues found that there was a weaker FIW than WIF in collectivist cultures.

The researcher believes that this is important to the current study because the scales used were developed in individualistic cultures, specifically the US. It is expected, therefore, that results may differ. Hence, the first research question of this study relates to the transferability of etic constructs to various contexts, namely, *are the constructs of the present study's measuring instrument culturally transferable?*

4.2. Work-family conflict and gender ideology

In a meta-analytical review of antecedents of work-family conflict, Michel et al. (2011) found that gender has been positioned as a moderator of work-family conflict. Society's expectations for "ideal workers" are also gendered (Rothausen-Vange, 2004). Literature suggested that gender ideologies are related to the division of labour in the household, particularly cooking, cleaning and laundry (Bianchi, Milkie, Sayer, & Robinson, 2000). Gender ideology refers to the way in which people identify themselves in relation to marital and family roles that are traditionally linked to gender (Greenstein, 1996). This definition already poses some debate on how marital status is defined, whether this includes or excludes partnership, and how these ideologies relate in a context of single-headed households. Work-family interface has generally been measured using western ideas of what constitutes work and family demands for nursing professionals (Beauregard, Ozbilgin, & Bell, 2009; Grzywacz et al., 2006; Kossek, Baltes, & Matthews, 2011; Wadsworth & Owens, 2007). Work and family issues are related to cultural beliefs, norms and values, especially with regard to gender roles (Yildirim & Aycan, 2008). With the increased global involvement of women in the workforce, gender roles have gone through changes to adjust to *modern* norms of

gender (Sullivan, 2000). In a profession such as nursing, women are the initial and dominant gender because of its alignment with traditional gender role expectations (Breier et al., 2009; Patel, Beekhan, Paruk, & Ramgoon, 2008; Yildirim & Aycan, 2008). The question posed here is not only whether family roles have adjusted to these *modern* norms of gender notion but also whether work role in the profession has adjusted.

As already stated, nursing is regarded as a female dominated profession that is aligned with the traditional family role of caregiver (Breier et al., 2009; Maher et al., 2010; Yildirim & Aycan, 2008). The Nursing Strategy 2013 highlighted this divide between female and male nurses, where male nurses only accounted for 10% (N=115 000) of the nursing population of South Africa (Department of Health, 2013). Given that nursing is a gendered profession it is important to consider how gender may influence work-family conflict. Higgins, Duxbury and Lee (1994, p. 145) asserted that gender can be a “predictor of the sources of conflict, but it may also act as a moderator that affects how the conflict is perceived, what coping skills are called upon, and how the conflict is manifested”. Gutek et al. (1991) proposed two conflicting frameworks in understanding work-family conflict, namely the rational theory and gender role frameworks. As discussed in the work-family conflict section, the rational view postulates that work-family conflict is as a result of hours spent in one domain (e.g. work), which impedes on the time available to spend in the other (e.g. family) (Gutek et al., 1991; Higgins et al., 1994). The underlying premise of this view is that an individual has limited resources (especially time) at their disposal (Gutek et al., 1991). Although this view specifically speaks about time-based conflict, it can also be extended to behaviour- and strain-based conflict, as Greenhaus and Beutell (1985) postulated that an individual also has a limited amount of energy to exert in the various roles. The rational theory assumes, for example, that investing more time in the work domain will lead to WIF, and vice versa. However Gutek et al. (1991) and Higgins et al. (1994) maintained that, according to the rational view, employed women should experience more FIW because research suggests that women (employed or not) spend more hours in family activities and responsibilities. The results of the study conducted by Gutek et al. (1991) indicated that women in senior management positions (N = 53) did not report higher FIW than their male (N = 156) counterparts, even though they spent more time in family-related activities and

responsibilities. A reason for this may be that the participants may have over- or under-reported the amount of time spent on family activities (Gutek et al., 1991).

The gender role framework proposes that traditional gender roles impact on the expectation of men and women's behaviour in either the work or the family domain (Gutek et al., 1991). The premise of this viewpoint is that gender affects perceived work-family conflict because additional responsibilities or time spent in one's gender role should be "less of an imposition by the role-holder" (Gutek et al., 1991, p. 561) than spending more time in another role. But this premise only holds for individuals that have traditional gender ideologies. In other words, Somech and Drach-Zahavy (2007, p. 5) postulated that traditional gender role attitudes "reinforce or conform to expected differences in roles for men and for women, whereas nontraditional attitudes do not support the segregation of roles by sex and hold female and male roles to be equal at home and at work". In a qualitative study (N = 60) of gender ideologies, behavioural coping strategies and work-family conflict, Somech and Drach-Zahavy (2007) found that the gender ideology of women moderated three coping strategies of WIF. They also found that gender ideology moderated the relationship between FIW and five coping strategies (Somech & Drach-Zahavy, 2007). More specifically, the coping strategies negatively associated with WIF of women with traditional gender ideologies, included *delegating at work* and being *good enough at work*, while being *good enough at home* was positively associated with WIF for traditional gender ideologies of women (Somech & Drach-Zahavy, 2007). Additionally, for traditional women the coping strategies *delegating work* and *priorities at work* were negatively associated with FIW, and coping strategies relating to the home domain (*good enough at home*, *delegating at home* and *being super at work*) were positively associated with FIW (Somech & Drach-Zahavy, 2007).

In a comprehensive literature review, Eby, Casper, Lockwood, Bordeaux and Brinley (2005), found that evidence on gender differences and reported work-family is mixed. A study by Greenhaus, Bedeian and Mossholder (1987) found that employed women experience more WIF than male counterparts. By way of explanation, spending more hours on household

chores by a woman should not be regarded as a burden because it is consistent with traditional gender roles. Another study by Minnotte, Minnotte and Pedersen (2013) investigated gender ideology as a moderator of FIW and marital satisfaction of dual-earner couples (N = 156) in North Dakota. The study found that gender ideology did not moderate the relationship between family to work conflict and satisfaction with marriage, however evidence existed that gender ideologies moderated family to work conflict and marital satisfaction of husbands (Minnotte et al., 2013).

This section discussed the influence of culture and gender ideologies on perceived work-family conflict. Examining work-family conflict through a gender lens allows one to pay attention to the nuances of the inequalities relating to social structuring inherent in the social and cultural context of this phenomenon (Gerson, 2004). Even though results are mixed, this section stressed the importance of culture and gender ideologies. It aimed to assist researchers to acknowledge the complex nature of the work-family conflict phenomenon.

5. Consequences of work-family conflict

The conflict between work and family has negative consequences in both the work and the family domains. The subsequent section reviews work-related, family-related, and domain-unspecific consequences of work-family conflict.

Cortese et al. (2010) and Frone et al. (1992a) noted that work-family conflict may be a source of stress as it may diminish psychological and physical well-being. The central assumption of role stress theory is that high levels of demands in everyday life create stress (Nordenmark, 2004). Research findings supporting the role stress theory maintain that multiple social roles are most commonly regarded as a burden on the individual because of the expectations inherent to each social role (Nordenmark, 2004; Tengelin, Arman, Wikström, & Dellve, 2011). Amstad, Meier, Fasel, Elfering and Semmer (2011), in a meta-

analysis of the consequences of work-family conflict, identified three categories of consequences: work-related, family-related, and domain-unspecific consequences (Amstad et al., 2011). They noted that work-related consequences of work-family conflict included low performance, high intention to leave, low job satisfaction, high absenteeism, and low organisational citizenship behaviour (Amstad et al., 2011). Eby et al. (2005) also identified that research conducted on the consequences of work-family conflict in the work domain focused on low job satisfaction, higher turnover intentions, lower perceptions of career enhancements and lower satisfaction with family. Activities in an individual's daily life that contribute to WIF are workload and emotional involvement in one's job (Carlson & Perrewé, 1999; Frone, Russell, & Cooper, 1992b). A quantitative study (N = 160) by Bruck et al. (2002) found that behaviour-based WIF and FIW had an influence on job satisfaction, more so than strain-based and time-based conflict. These results suggest that individuals experience less job satisfaction if they are unable to repeat the behaviour required to be effective at work in the home domain (Bruck et al., 2002).

The consequence of work-family conflict in the family domain is lower satisfaction with family (Eby et al., 2005). Moreover, family-related consequences of work-family conflict include low marital satisfaction, lower family-related performance, and higher family-related stress (Amstad et al., 2011). A study by Hostetler, Desrochers, Kopko and Moen (2012) provided evidence of family-related consequences of work-family conflict. In their study (N = 260 couples) Hostetler et al. (2012) reported that work demands (e.g. work hours) were negatively associated with marital satisfaction. In addition, the spillover of WIF was negatively associated with family satisfaction of parents (Hostetler et al., 2012). These results support the interdependence of work and family domains, and the consequences that work demands have on the level of satisfaction in the family domain.

The last consequence of work-family conflict is the domain-unspecific category. This category has the strongest relationship with WIF and FIW. Consequences relating to this category include high psychological strain, burnout, low life satisfaction, high stress, and depression (Amstad et al., 2011). For example, Peeters, Montgomery, Bakker and Schaufeli

(2005) found that demands from work and family have a direct effect on burnout, where WIF and FIW were the mediating variables.

5.1. Coping mechanism of work-family conflict – Social support antecedent

There are two forms of support that have been investigated when researching work-family conflict. These are organisational support and non-work social support. In this section, the researcher discusses the effect of social support on work family conflict. Research on work-family conflict has identified that support is a mechanism for reducing the effects of conflict in the work-family interface (Carlson & Perrewé, 1999). Social support can be defined as the “interpersonal transaction that involves emotional concern, instrumental aid, information, or appraisal” (House, as cited in Carlson & Perrewé, 1999, p. 514).

Social support in both work and non-work domains have been researched as an antecedent, moderating variable, mediating variable, and independent variable. However the strongest fit is social support in work-family research as an antecedent (Carlson & Perrewé, 1999). In other words, “social support can serve as a protective function (antecedent variable) prior to a stressful experience” (Carlson & Perrewé, 1999, p. 516) (Figure 3). To understand social support one needs to distinguish between structural and functional facets of support (Kafetsios, 2007). Structural support, according to Kafetsios (2007), refers to the existence of social relationships. In other words, it is the network and type of relationships available to provide support to the individual (Kafetsios, 2007). On the other hand, functional support is mostly researched in psychology. Functional support refers to the psychological resources of support, namely emotional, instrumental, informational and perceived satisfaction with support (Kafetsios, 2007). The Social Support Questionnaire, developed by Sarason, Sarason, Shearin and Pierce (1987), provides an instrument that focuses on both structural (list of support providers) and functional (level of satisfaction with support or perceived social support) facets. The Social Support Questionnaire measures the availability of, and satisfaction with perceived social support (Kafetsios, 2007; Sarason et al., 1987). Lopez and

Cooper (2011) noted that measures of *perceived* social support had been found to reduce psychological stress and improve well-being, despite the potential biases of self-reporting of respondents.

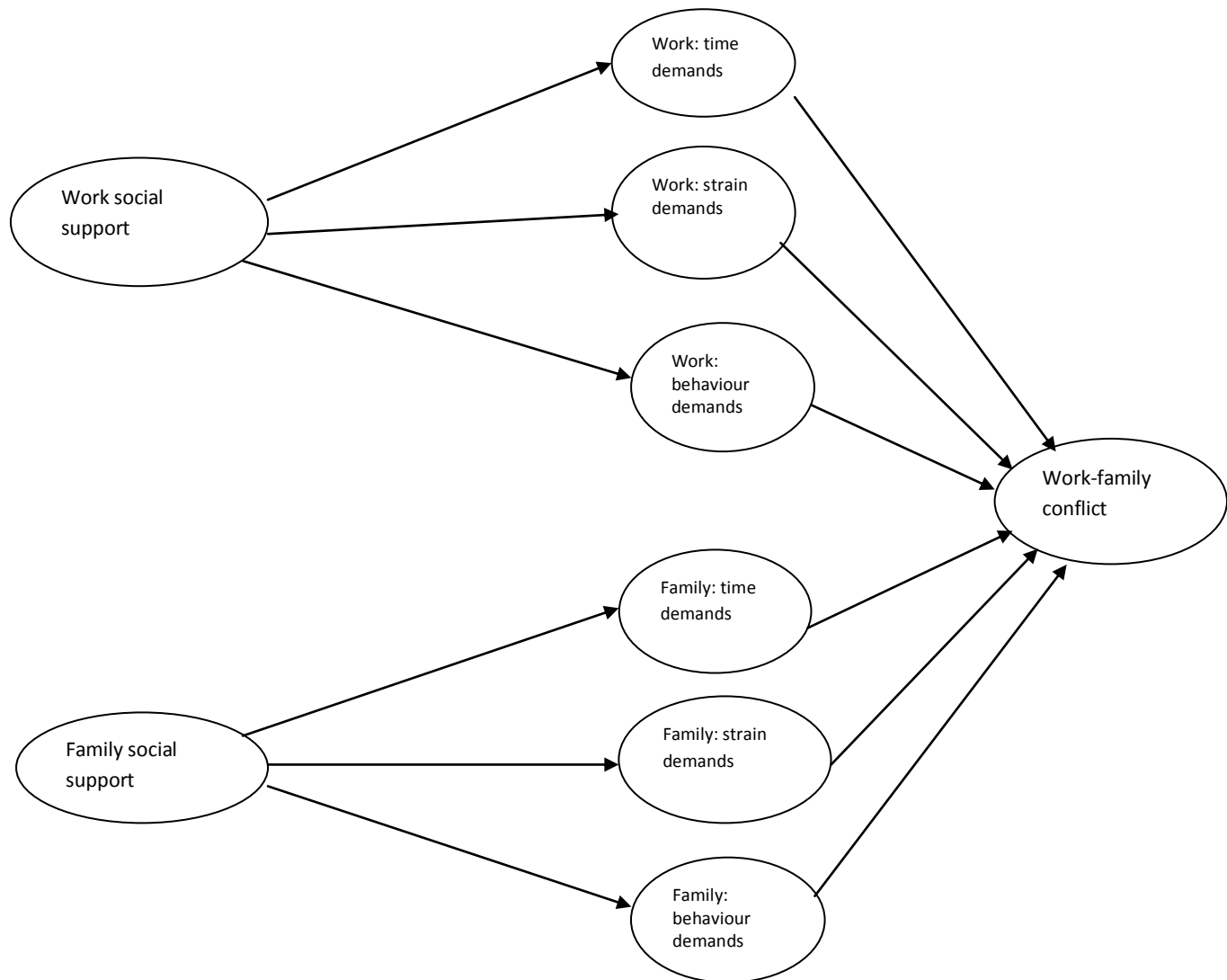


Figure 3: Social support as antecedent of work-family conflict

Adapted from Carlson & Perrewé (1999)

Ryan and Kossek (2008) noted that the integration of work and family demands is a critical challenge that faces both the employee and the organisation. Social support in the work environment may come from colleagues or supervisors (O'Driscoll et al., 2003). The most important factor that may diminish work to family conflict is organisational support,

especially support from managers (Somech & Drach-Zahavy, 2007). Organisational support relates to the organisational culture and work dynamics. Hence, support in the work domain could create positive work environments (Carlson & Perrewé, 1999). Organisational support has been the cornerstone of work-family conflict research, in that research has focused on policies in which organisations can design and implement family-friendly working cultures. However, O'Driscoll et al. (2003) found in their research that availability and usage of organisational policies are not directly related to the reduction of work-family conflict. This may be because policies take time to have an effect, employees do not frequently use the policies, and that different people require different forms of support (O'Driscoll et al., 2003). Amstad et al. (2011) also asserted that family-friendly strategies are not automatically implied unless they are accompanied by a family-friendly work climate. Consequently, it is more important to have organisational cultures that act as a supportive environment, thus affecting employees' perceived support.

Perceived social support refers to an individual's cognitive appraisal of support received to decrease stress and enhance well-being (Lopez & Cooper, 2011). Sarason et al. (1987) proposed that perceived social support is appraised based on availability and adequacy of social support. With regard to work-family conflict the researcher assumed that the availability of perceived social support is from both the work and family domains. The construct of perceived organisational support (POS) was introduced by Eisenberger and his colleagues in 1986. The construct focuses on employees expressing the feeling that they are valued and that their well-being is important to the organisation (Eisenberger, Huntington, Hutchison, & Sowa, 1986). This perceived organisational support also deals with the reward and recognition of effort by employees, and the feeling that the organisation is "on their side". Rhoades and Eisenberger (2002) suggested that high levels of POS translate to trust, organisational identification and loyalty to the organisation. In contrast, lower levels of POS are observed by withdrawal behaviour and low job performance (Rhoades & Eisenberger, 2002).

Non-work related social support involves social networks (e.g. family, religious associations, and friends) and family. Studies have indicated that support from family plays an important part in reducing work-family conflict, of which spouse support has received a great deal of attention (Carlson & Perrewé, 1999). For example, a woman's partner or family members may help with household tasks or a woman could have older children that could assist with tasks around the house. Support in either the work and family domain can act as a buffering effect for conflict experiences in either role (Burleson, Albrecht, & Sarason, 1994; Greenhaus & Beutell, 1985; Lapierre & Allen, 2006). Empirical evidence suggests that family members can assist employees to meet work demands by providing instrumental assistance and emotional sustenance (King, Mattimore, King, & Adams, 1995). Instrumental assistance occurs when family members relieve the working individual from home-related duties and responsibilities (King et al., 1995; Lapierre & Allen, 2006). Instrumental assistance prevents time-based FIW because the working individual has more time available to engage with work demands (Lapierre & Allen, 2006). Instrumental assistance may also reduce strain-based FIW, because the working individual would deal with fewer family-related responsibilities thus having more energy available for work (Lapierre & Allen, 2006).

Emotional sustenance occurs when family members provide understanding of, and encouragement to the working individual's concerns (King et al., 1995; Lapierre & Allen, 2006). This form of social support in the family or non-work environment provides an overall calming effect for individuals when they are at home. Emotional sustenance suggests that individuals are less likely to be drained of energy when they are at home, which will, theoretically, prevent strain-based FIW (Lapierre & Allen, 2006)

By using the Social Support Questionnaire, participants are allowed to provide their perceptions of the social support provided from their supervisors, co-workers, partners and family members – and how these interplay with the multiple dimensions of work-family conflict. These sources of support are also referred to as support relationships or structural support (Kerrane & Buckley, 2004). As stated by Seiger and Wiese (2009), social support can be viewed as a social resource that buffers the magnitude of conflict experienced in the

work-family interface. The Social Support Questionnaire permits a researcher to compute social support provided by family and non-family as described as such by participants (Sarason, et al., 1987). The researcher may then be able to determine which structural support or support relationships are associated with the multiple dimensions of work-family conflict. By way of explanation, support received from partner or family members reduces FIW and support from supervisors or co-workers reduces WIF. Seiger and Wiese's (2009) research was conducted on Swiss employed mothers and consisted of a cross-sectional questionnaire survey (N = 107) and standardised diaries (n = 69). Their study did not support the theory that social support has a buffering (or moderating) effect on work-family conflict. Additionally, a quantitative study to determine which support relationship (or source of social support) influences the work-family conflict experienced was conducted on Irish full-time employed adults (N = 170) (Kirrane & Buckley, 2004). The study found that the only support relationship that influenced work-family conflict was spouse/partner support (Kirrane & Buckley, 2004). Where individuals had children under the age of six years the principle predictor of work-family conflict was also spouse/partner support. These results confirm prior research that support does not always influence work-family conflict and that spouse/partner support impacts work-family conflict, especially in cases where children are young (Kirrane & Buckley, 2004).

Since the current study was conducted in a non-Western country, the researcher was of the view that the characteristics of the culture (collectivistic) would influence the role of social support in this society and therefore work-family conflict. Based on the researcher's understanding of *Ubuntu* and the pivotal role that family plays in providing support in the current context (this is further discussed in *The Family Role* section of this chapter), the second research question desired to ascertain *whether there is a relationship between social support received from family and the sources of FIW*.

6. Nursing Profession in South Africa

The following section provides a discussion of nursing in South Africa, the characteristics that influence the work environment, and the implications of these characteristics.

According to Maher et al. (2010), the nature of the nursing profession is characterised by physical and emotional care of patients. This has shaped the perception that this profession is fitted to women. Breier et al. (2009) noted that the nursing profession is a predominantly black, or African, female profession in South Africa. This, according to the Nursing Strategy for South Africa (2008), was because many previously disadvantaged individuals were enticed by the subsidised education and training that was available to them. Therefore, results on work-family conflict (where previous research is dominated by western and European studies) may not be culturally relevant in the South African context.

Grzywacz et al. (2006) identified two reasons why investigating work-family conflict is important in the nursing profession. Firstly, work-family conflict may intensify the nursing shortage experienced in the profession, and may serve as a barrier for those intending on entering the profession. In South Africa the ratio of population per registered nurse is 434:1 (SANC, 2013a), whereas in the Eastern Cape the ratio of population to nurse is 482:1 (Table 1) (SANC, 2013a). It is important to note, at this point, that the Nursing Act of 2005 requires all nurses to be registered in South Africa in order to practice. However, being registered may not imply that these individuals are still working in healthcare or are even working in South Africa. It is for this reason that registered nurses may experience work overload, which in turn contributes to work-family conflict.

Table 1 Geographical Distribution of the Population of South Africa Nursing Manpower (2012)

Province	Registered nurses	Population per RN	Population per total nurse*
Limpopo	10 080	603:1	226:1
North West	8 394	412:1	218:1

(table continues)

Table 1 continued

Province	Registered nurses	Population per RN	Population per total nurse*
Mpumalanga	6 331	633:1	309:1
Gauteng	32 106	372:1	193:1
Free State	7 788	374:1	211:1
KwaZulu Natal	27 041	437:1	171:1
Northern Cape	2 242	514:1	290:1
Western Cape	15 455	357:1	198:1
Eastern Cape	14 608	482:1	258:1
TOTAL	124 045	434:1	208:1

SANC (2013). *Geographical distribution of population of South Africa to nursing manpower.*

* Total nurse includes registered, enrolled and auxiliary nurses.

Secondly, as mentioned earlier, work-family conflict is associated with lower job satisfaction, burnout, fatigue, and emotional distress, which are linked to poor performance by healthcare providers (Dollard, Winefield, & Winefield, 2003; Grzywacz et al., 2006; Lambert & Lambert, 2001). In South Africa nurses are found to be generally dissatisfied with remuneration packages (Pillay, 2009). A study conducted on nurses in rural areas of South Africa found that, in addition to dissatisfaction with remuneration packages, nurses were also dissatisfied with working conditions (such as the impact of HIV/AIDS, high workloads, lack of career prospects and adequate resources) (Delobelle et al., 2011).

6.1. Conceptual framework for studying nursing in South Africa

South Africa has a dual healthcare system, in that it consists of both a private and a public sector (Breier et al., 2009; R. Pillay, 2009). The public sector is a government health institution and is responsible for 82% of the country's well-being; the private sector is a for-profit institution owned by organisations and individuals and utilised by patients who have access to medical aid (Pillay, 2009).

According to the Department of Health (2013, p. 9), “South Africa’s healthcare system is predominantly nurse-based”. The nursing profession and its practices and policies are governed by the South African Nursing Council (SANC). SANC is a statutory body that sets and maintains the standards of nursing education and practice in South Africa (SANC, 2013b). According to Breier et al. (2009), 85 percent of the South African population makes use of public healthcare services, where 60 percent of the country’s nurses and 40 percent of the doctors are employed. The professional profile of nurses in South Africa provides opportunity to conduct such research, as the profession remains largely female dominated (Breier et al., 2009; Hoffmann, 1991; Yildirim & Aycan, 2008). The image of nursing maintains the stereotype of nurturing, self-sacrificing females who will always meet the needs of others (Letvak, 2001).

The supply of nurses in South Africa is shaped by the image and status of nursing, and the relationship between image status and conditions in the health sector (Breier et al., 2009). According to Breier et al. (2009), the image and status of nursing has declined because the health sector has been affected by the nature of diseases experienced (such as TB and HIV/AIDS) and working conditions (such as lack of resources and work overload) in the public sector.

According to Breier et al. (2009), the nursing profession in South Africa has a complex hierarchical structure, which is further complicated by legislation governing the profession. All nurses are required to register with the SANC in two different categories: one is the register and the other is the roll (SANC, 2010). Those nurses who have registered on the register are called Registered Nurses (RNs) or Professional Nurses (PNs). Although these terms are used interchangeably, a PN has completed a four-year programme that included specialised training in community nursing, psychiatric nursing, midwifery, and general nursing (Breier et al., 2009). On the other hand, a RN’s training only includes general nursing (Breier et al., 2009; SANC, 2010). Nurses registered on the roll can either be registered as an Enrolled Nurse (EN) or an Enrolled Nursing Auxiliary (ENA). The training of EN and ENA is

shorter in duration and admission to training only requires that students have achieved a Grade 10 education.

6.2. Work environment and characteristics

Changes in South Africa's economic and political environment have had an impact on the profession, in that the majority of the population now has access to *free* health care services (Wildschut & Mqolozana, 2008a). This demand has led to increased pressure on the nursing profession because the number of nurses available to serve the public has not steadily increased to meet the demands through free health care.

Role players in identifying shortages of nurses in South Africa are the SANC and Democratic Nursing Organisation of South Africa (DENOSA). DENOSA is a voluntary organisation that represents the interests of nurses and the practice of nursing in South Africa, by promoting, protecting, developing, empowering and supporting nurses and midwives using legal mechanisms (DENOSA, 2013).

SANC acknowledges that there is a shortage; however, they simultaneously attempt to provide a positive picture with regard to the growth of the nursing profession (Wildschut & Mqolozana, 2008b). On the other hand, DENOSA asserts that there is a shortage of nurses in South Africa because the country is not producing or training sufficient nurses to deal with its health needs (Wildschut & Mqolozana, 2008b). Research conducted by Breier et al. (2009) found that the shortage experienced is as a result of the aging of the staff in the profession (Figure 4) and the migration of RN/PNs to other countries. According to the Strategic Plan for Nurse Education, Training and Practice retired nurses are utilised in mentoring roles because of their expertise and skills, in an attempt to deal with human resource challenges (Department of Health, 2013). Breier et al. (2009) acknowledged that

the international professional labour market has aided in the migration of nurses, however it brings with it the double edged sword of globalisation. On the one hand professionals may travel and advance their skills, while, on the other hand developing countries (such as South Africa) are losing the professionals that they have educated, also known as the 'brain drain' (Breier et al., 2009). According to the International Labour Organisation (as cited in Littlejohn, Campbell, Collins-McNeil, & Khayile, 2012), *brain drain* occurs when educated individuals migrate from developing countries to developed countries, and the developing country loses educated and skilled individuals. A study conducted by Vujicic, Zurn, Diallo, Adams and Dal Poz (2004) found that South Africa is among the top suppliers of nursing manpower to other countries such as the United Kingdom, Australia and Canada.

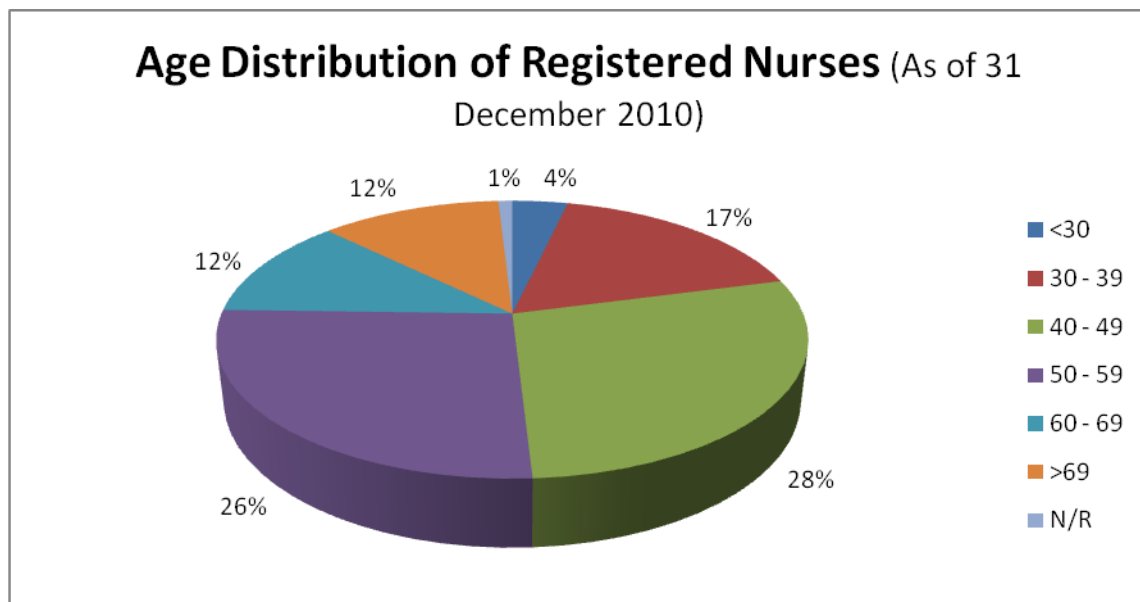


Figure 4: Age distribution of Registered Nurses

Adapted from SANC, 2010

These conflicting views on the shortages in the nursing profession between SANC and DENOSA are evident because there are no reliable data available to determine the actual demand and supply of nurses (Hall, 2004). Statistical information from the World Health Organisation (WHO) indicates that, while South Africa's nurse to population ratio is 40.1:10 000, the WHO's global ratio is 29.7: 10 000 with a minimum range of 0.1: 10 000; medium

28.4:10 000 and maximum range of 164.8: 10 000 (WHO, 2010). Therefore, according to WHO, South Africa does not have a shortage of nurses. However, there is an uneven distribution of nurses throughout the nine provinces (WHO, as cited in Hall, 2004). Hall (2004) found that areas that show evidence of shortages are the rural areas of the country, namely the Northern Cape, Mpumalanga, Limpopo, and the Eastern Cape. The shortage of healthcare professionals (doctors and nurses) is an intractable problem both in developed and developing countries, because it has implications for the equitable delivery of healthcare services to all its citizens (Wilson et al., 2009). The legacy of apartheid has impacted on healthcare systems with regard to the uneven distribution of staff, and poorly skilled staff of many health personnel (Coovadia, Jewkes, Barron, Sanders, & McIntyre, 2009). For example with regard to the uneven distribution of staff, during the apartheid era healthcare institutions in rural areas, especially those with high concentrations of non-whites, were under-resourced in their nursing staff (Coovadia et al., 2009). Moreover, Wilson et al. (2009) maintained that the geographically skewed distribution of nurses is as a result of their preferring urban and wealthier areas to work in.

Voydanoff (1988) identified that the amount and scheduling of work time is a major characteristic of the nursing profession. Voydanoff (1988) goes on to say that long hours, weekend work and evening work limits the time the individual is physically available for family activities. Previous studies have shown that the hours worked has a direct relationship to work-family conflict and strain (Cooper et al., 2001; Staines & Pleck, 1984). Therefore, time away from the home may have implications in the family domain and the social identity of a 'good' mother (Simon, 1995), and the division of household labour (Bianchi et al., 2000).

As mentioned, shift work is a basic characteristic of the nursing profession. Shift work has been a good example of the effect of work scheduling on work-family conflict. Shift work can be defined as employment that aims to make use of the 24 hours in a day, and workers rotate work schedules to accommodate this design (Monk, 1992). Research conducted by Staines and Pleck, (1983) showed that night shift is associated with work-family conflict,

however working on weekends and variable days is not related to overall work-family conflict.

Research conducted in the South African context by Mokoka et al. (2011) identified seven factors influencing the work environment of the nursing profession. These are working conditions, relationships at work, reward and remuneration, professional development, scheduling of working hours, the image of nursing, and the impact of values on nursing (Mokoka et al., 2011). Working conditions refer to nursing shortages, which have resulted in heavy workload, mandatory overtime. Lack of basic resources and demands from management, authorities and patients affect the effectiveness of delivering professional health care by nurses (Mokoka et al., 2011). The study conducted by Pillay (2009) found that both the public and private sector nurses are dissatisfied at varying levels and with varying aspects. Wildschut and Mqolozana (2008b) found in their research that public healthcare nurses are unhappy with the lack of investment in the facilities (resources) to assist them in conducting their jobs, and remuneration. Nursing managers identified that salary packages are the primary sources of dissatisfaction in the nursing profession (Mokoka et al., 2011; WHO, as cited in Wildschut & Mqolozana, 2008b). In the private sector, Wildschut and Mqolozana (2008b) and Pillay (2009) reported that nurses are unhappy with the institutions' focus on profit-making and the resultant neglect of the human resources aspect. Nurses are also dissatisfied with the lack in career development opportunities (Pillay, 2009).

Scheduling of working hours refers to the rotation and number of hours allocated to employees in the nursing profession (Warner, 1976). Mokoka et al. (2011) found that the scheduling of working hours was inflexible; they required long shifts and excessive overtime, which, in turn, impacted on the strain of nurses. Due to the scheduling of working hours, older nurses are forced to retire and younger nurses feel that these conditions negatively impact family and non-work spheres (Mokoka et al., 2011). This, in turn, impacts on the image of the nursing profession, which is regarded as an unattractive profession, overshadowed by unsociable work hours, lack of resources, undesirable work conditions and dissatisfaction with remuneration (Adams, Lugsden, Chase, Arber, & Bond, 2000; Breier et al., 2009; Pillay, 2009). According to Mokoka et al. (2011) professional development such

as in-service education and on-the-job training has been negatively impacted by staff shortages.

Lastly, the discrepancies regarding the impact of values on older and younger nurses also plays a role in the work environment of the profession (Mokoka et al., 2010). Stated differently, older nurses were more caring, patient and took time to talk to patients, while the younger nurses would perform their tasks in a professional way, but quickly move on to the next patient or task. This may be as a result of the work ethic of various generations in the profession: older nurses want to ensure that patients receive exceptional service; younger nurses want patients assisted and treated as quickly as possible.

Furthermore, a review of recent literature identified eight primary sources of stress for nurses. These include work overload, inadequate staffing levels, unsociable work schedules, poor managerial and supervisory support, poor communication, lack of autonomy, role conflict and role ambiguity (Cortese et al., 2010; Dollard et al., 2003; Kovner et al., 2006; Pal & Saksvik, 2008; S. Williams, Dale, Glucksman, & Wellesley, 1997). McVicar (2003) also postulated that work characteristics and conditions are predictors of stress in the nursing profession. Dissatisfaction with the work environment has an impact on turnover intentions by nurses in the rural areas of South Africa, as found by Delobelle et al. (2011). Work role characteristics associated with work demands refer primarily to pressure arising from extensive workload and time pressure, hence work stressors. Moreover, work stressors are the strongest predictors of work-family conflict (Burke & Greenglass, 1999).

6.3. Human resource challenges

The family and work systems need to be understood within the context of the professions, to avoid human resource policies adopting a “one size fits all model”. In other words, although family-friendly policies may be in place, their relevance may not be applicable. Brough and O’Driscoll (2010) suggested that when designing work-family balance policies or

interventions, it is important to incorporate the worker, the organisation and the needs and views of the worker's spouse or partners. Therefore, as stated by Clark (2000) and Katz and Kahn (1978), it is important to identify that work and family systems do not exist in isolation and that these systems form part of an inter-related open system.

Dissatisfaction with work and the work environment of the nursing profession has severe implications for the provision of the healthcare services of South Africa and other countries. McHugh, Kutney-Lee, Cimiotti, Sloane and Aiken (2011) in their research on nurses' job satisfaction (N = 68 488), found that nurses are dissatisfied with work overload, time commitment to their jobs, and salaries. The implications of these factors of dissatisfaction with work could lead to lower performance, higher intention to leave, and lower organisational citizenship behaviour (Amstad et al., 2011). These work-related consequences will negatively impact the provision of healthcare services by nurses.

According to Pillay (2009) there should be more consideration to improving the scheduling of nurses' work hours, providing day-care facilities to nurses, and allowing for part-time employment in the profession. In light of this the third research question aims to *determine whether there is a difference between shifts and experience of FIW and WIF.*

7. The Family Role

The review on the literature of work and family found that the conflict between work and family has crossover effects between spouses, parents and children (Eby et al., 2005). Eby and her colleagues also suggested that families are complex systems with interdependent roles. It is for this reason that the following section focuses on defining family in the context of the research, as well as drawing attention to the gender role ideologies that underpin the complexities of African families. In line with the earlier argument that South Africa can be viewed as a collectivist society, it is necessary to define families according to the

structuralist-functionalist perspective. The sociological structuralist-functionalist theory provides an explanation of family, regards the family as a part of the greater whole, and is based on the understanding that “society is a system of interconnected parts that work together in harmony to maintain a state of balance and social equilibrium” (The Presidency, 2012). Analysing the family role from this perspective allows an explanation on how changes in society (such as democracy and women entering the workforce) alter how a family functions and organises itself in order for members to perform functions in society (The Presidency, 2012).

The purpose of reviewing literature on the family in this context is because of the influences family structures have on work-family conflict. That is, aspects such as time spent in family work (or domestic labour), work hours of spouses or partners, and the number and ages of children are related to work-family conflict (Gallie & Russell, 2009; Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009; Voydanoff, 1988). The time spent in domestic labour may result in FIW and deplete an individual’s energy, employment or long work hours of a spouse may result in a greater share in family duties, and both the number and ages of children is associated with strain-based work-family conflict (Voydanoff, 1988). For example, Premeaux, Adkins and Mossholder (2007, p. 710) maintain that “caring for children consumes time, energy and financial resources, and the more children in the family the greater the consumption”.

7.1. Defining family and household

According to Collier, Rosaldo and Yanagisako (1997, p. 71) without understanding what families are really like “we fail to appreciate the deep significance of what are, cross-culturally, various ideologies of intimate relationship, and at the same time we fail to reckon with the complex human bonds and experiences”. Ziehl (2002) defined family as a social institution consisting of ideological (marriage, children, etc.) and concrete components (household arrangements, residential patterns). According to Siqwana-Ndulo (1998) the Western society’s view of family generally refers to a marital pair who maintain a household

and their children. Anyone outside this definition of family, in the western view, is considered to be “extended family”. Extended family members could include grandparents, nieces, or nephews. In a diverse cultural society like South Africa, this western view of family falls short of reality and thus may have practical implications when investigating family demands. Furthermore, Beauregard et al. (2009) argued that the narrow definition of family instils challenges for individuals whose personal conceptualisation of family is not aligned to the western society view. Conceptualising family in the work context poses explicit challenges for human resource development (HRD) practitioners and industrial/organisational psychologists who attempt to put into place work-family initiatives (Beauregard et al., 2009).

The Green Paper on Families stated that the term ‘family’ and ‘households’ are usually used interchangeably, but it argues that they are not synonymous (The Presidency, 2012). A reason for this may be because family is defined according to ideological and concrete components. The term ‘household’ can also be contested. For this reason, the meaning of this term in a South African context needs to be clarified. Murray (as cited in Kayongo-Male & Onyango, 1984) defined the household as a unit of economic viability, whether or not members are dispersed at any one time. A household consists of a person or group of people who live and eat together for at least four days a week, and who share resources (Dungumaro, 2008; Statistics South Africa, 2001). Furthermore, Zulu and Sibanda (2005, p. 218) defined the household as “the residential and livelihood arrangements in which family and non-family members coexist”. Zulu and Sibanda’s definition illustrates the concept of *Ubuntu*, where it reflects the interconnectedness of individuals with the community that extends beyond self-determination (Nussbaum, 2003). American President Barack Obama, at Nelson Mandela’s memorial, described *Ubuntu* as the “oneness of humanity, that we achieve ourselves by sharing ourselves with others, and caring for those around us” (Mail & Guardian, 2013). Similarly, Archbishop Desmond Tutu described *Ubuntu* as the interconnectedness of being human. There are different household formation rules which, ultimately, affect living arrangements in South Africa (Amoateng, Heaton, & Kalule-Sabiti, 2007). For example, African cultures place a high level of importance on communal ethos; most households have extended household and living arrangements. Amoateng et al. (2007)

went on to identify that white South African households are characterized by western living arrangements. Amoateng et al. (2007) identified four different types of household arrangement in South Africa: one person, nuclear, extended and non-related person households. These living arrangements are important because they impact on the quantity and distribution of household labour and the responsibilities of employed individuals.

According to Statistics South Africa (2012), female-headed households are more likely to have more than one generation within the household than male-headed households. From the figure below (Figure 5), the majority of households in South Africa consist of either a nuclear or extended family. The most notable results from this figure illustrate that Black African female-headed households contain 54.3% of extended families. Additionally, the 2008 General Household Survey found that about 54% of female-headed households in South Africa were unmarried single parents, and consisted of three generations (The Presidency, 2012).

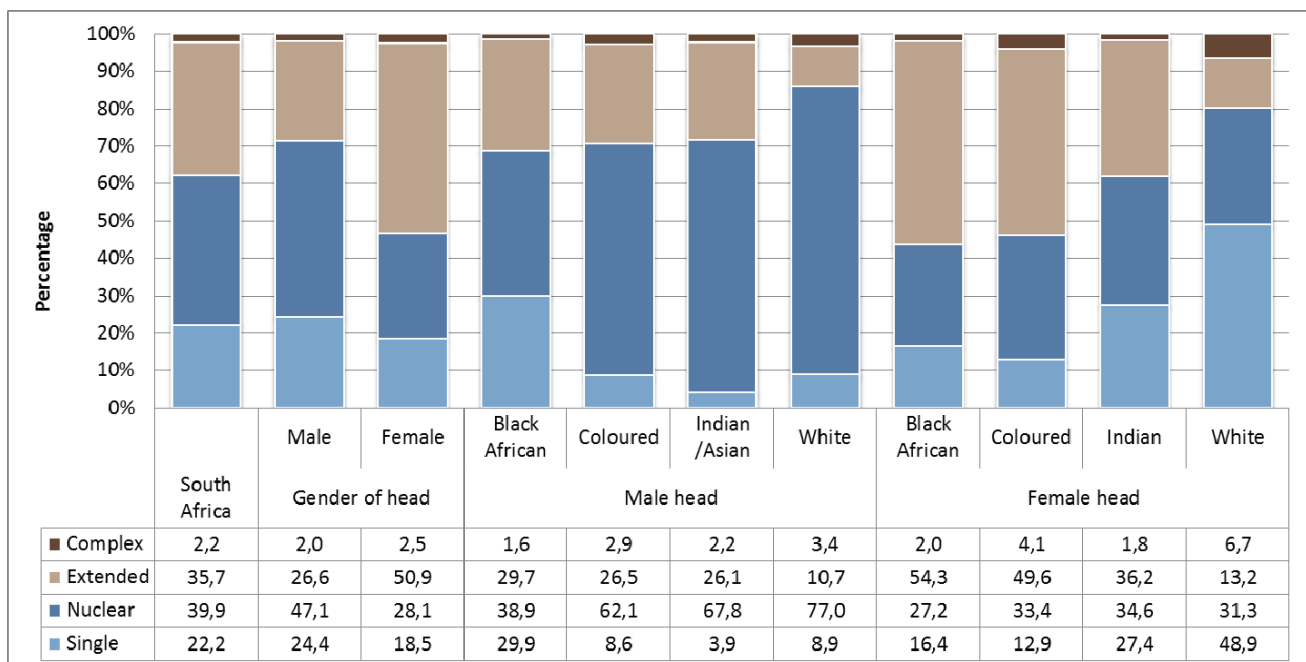


Figure 5: Percentage distribution by gender of type of intergenerational households (Statistics South Africa, 2012)

7.2. Characteristics of African family life

Family in its simplest form consists of a husband, wife and their offspring, also known as a nuclear family (Bengtson, 2001). However, changes in the lifestyle of people globally have changed this concept; instead of a husband and a wife, a nuclear family could be a man and woman living together (Kayongo-Male & Onyango, 1984). Murray (as cited in Kayongo-Male & Onyango, 1984) stated that the definition of a nuclear family is static to the changes of the concept of family over time. Divorce and nonconventional family setups may translate into a shift to extended and complex family structures (Ziehl, 2002). Furthermore, Ziehl (2002) asserted that this means that nuclear families do not describe what is experienced by individuals, even in Western societies.

A common characteristic of African families is the concept of extended families. Kayongo-Male and Onyango (1984) identified that extended family members sometimes stay with “nuclear” families for economic support. For example, working mothers who are not able to afford external help for household tasks opt to bring in extended family members to take care of these duties. Moreover, Ziehl (2002) stated that the participation of women in paid work may also be associated with the increase of extended family households. It is not only economic constraints that bring extended family members into the household, as Ziehl (2002) suggested that having the grandparents looking after the child while the mother works seems to be an ideal solution to work-family conflict.

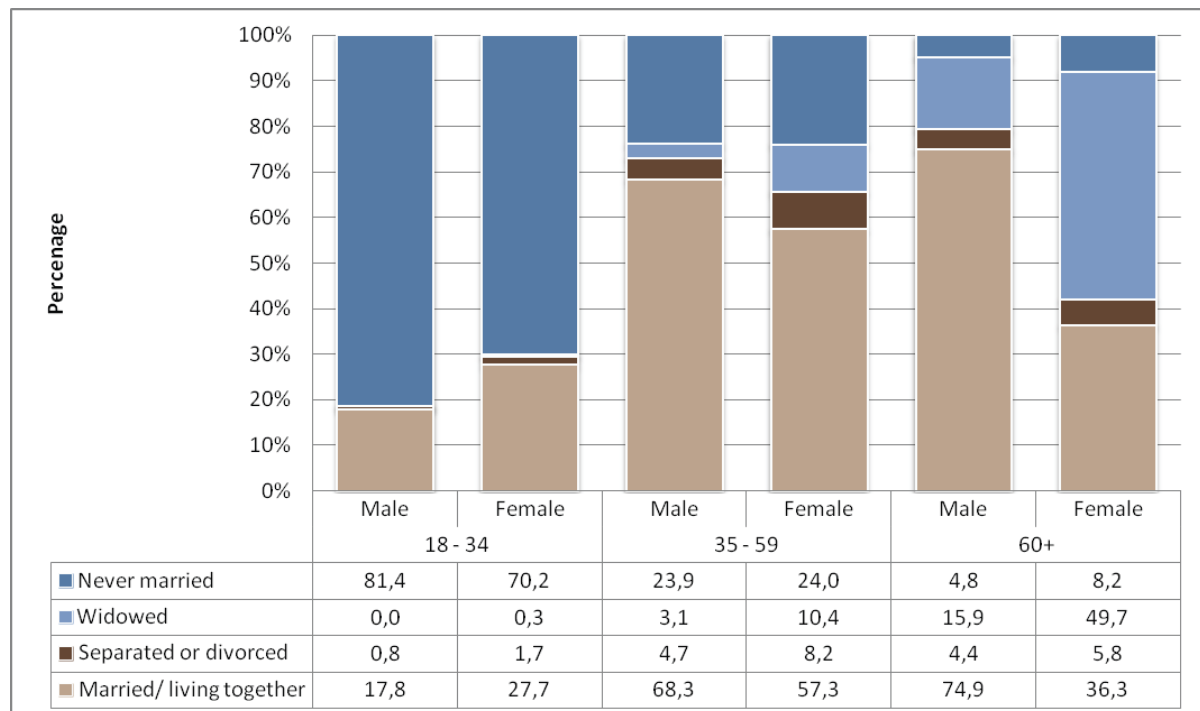


Figure 6: Marital status by gender and age group
(Statistics South Africa, 2012)

The information in figure 6 provides the statistics for the marital or relationship status of the South African population by gender and age group. In many societies marriage is important for the stability of the family, however the rate of marriages in South Africa is very low compared to the rest of Africa (The Presidency, 2012). This information is relevant in order to understand the characteristics of households in South Africa. Figure 6 indicates that between the ages of 18 and 34, 81.4% and 70.2% of males and females respectively have never been married. In addition to these results, it is important to identify that marriage and cohabiting have been amalgamated to provide a single percentage. This emphasises the possibility that the traditional family definition may be flawed in the current South African society.

7.3. Gender role framework and family

Greenhaus and Beutell (1985) proposed the importance of noting the work-family conflict which can arise due to non-compliance with traditional gender notions, resulting from the discrepancies between self-expectations and others' expectations. As indicated by Ahmad

(1999) most studies on work-family conflict have not examined the impact of gender role orientations on the level of work-family conflict experienced by individuals. Ahmad (2008) and Wallis and Price (2003) found that women who believe in the traditional gender role orientation rather than the non-traditional gender role orientation, with the latter assuming interchangeability between roles (role sharing), experience more FIW. Santos and Cabral-Cardoso (2008) proposed that gender is not conceptualised as an individual characteristic based on either psychological or biological characteristics but that it consists of an institutionalised system of the social construction of roles (family and work) which categorise people into two distinct roles: men and women, valuing the other (work) over the other (family) in the process. In the nursing profession, Van der Merwe (1999) posits that nurses are faced with two conflicting ideologies: professionalism and domesticity. Professionalism requires women to 'work like a man' and simultaneously take care of the family and 'act like a woman', in terms of domesticity (Van Der Merwe, 1999).

Although both men and women report that family is more important than work (Emslie & Hunt, 2009; Gutek et al., 1991; Kinnunen, Feldt, Mauno, & Rantanen, 2010), traditional gender roles indicate a differing emphasis on the family roles that men and women have in the household. A review of existing literature on work and family research conducted by Eby et al. (2005) found that both gender differences and roles are pivotal in understanding the work-family interface. Eby and her colleagues identified that even though there are no clear patterns of domain predictors regarding gender in work and family research, there is evidence that the outcomes of work and family interference differ by gender. Therefore, these roles affect men and women's perceptions of work-family conflict (Gutek et al., 1991). The rational view assumption might therefore be distorted by gender roles. For example, women might not view their work in the family domain as work because traditional gender roles might view these tasks (household labour) as tasks that need to be fulfilled by women. In other words, time spent on work in one's own gender role domain (such as more housework hours for a woman or more paid-work hours for a man) would not be felt as an imposition by the role-holder than additional hours of work in the domain traditionally associated with the other gender (Gutek et al., 1991). Research shows that women do not

often report more work-family conflict than men despite the fact that their combined work-family hours exceed those of men (Gutek et al., 1991).

7.4. Family and division of labour

Peterson and Gerson (1992) attempted to explain the involvement of men and women in household labour using two approaches. The first approach that they used is the human capital theory. According to this theory, men and women trade-off between time in paid labour and household labour, and that each individual will invest more time in the 'labour' in which he or she is most effective (Becker, as cited in Peterson & Gerson, 1992). This theory suggests that women who spend more time at work, and who are more productive at work will have less responsibility for household labour. Becker (as cited in Peterson & Gerson, 1992) argued that "the demands of household labour influence husbands' and wives' involvement" (p. 528).

The second approach that Peterson and Gerson (1992) used to explain the involvement of men and women in household labour is the social-structural theory, which argues that "structural arrangements account for the prevalence of an unequal division of household labour" (p. 528). The social-structural theory argues that, as the family size increases the woman absorbs less of the household labour if she is an employed worker because the man becomes more involved.

However, empirical literature on the division of household labour sustains that the division of labour seems to be very traditional in both situations where a woman earns more money than her husband, and even if the husband is unemployed (Brayfield, 1992). In other words, a man is viewed as the head of the household regardless of the woman's contribution. In the study by Brayfield the term "husband" is used, but it fails to acknowledge the different composition of a household, which may not necessarily consist of a marital pair.

The gender model assumes that work has different psychological and social meaning for men and women, and that gender role ideology and socialisation generates different expectations about work and family (Borman, Quarm, & Gideonse, 1984; Simon, 1995). Research findings by Bittman et al. (2003) suggested that, as women become the primary breadwinners, they do more domestic tasks to reinforce traditional gender roles. This suggests that society has not progressed to accommodate the changes in society. Gender ideologies suggest that the division of domestic labour differs between men and women – a women's work involves tasks such as cooking, laundry, housecleaning, whereas a man's work involves yard work and maintenance around the house (Emmons et al., 1990; Greenstein, 1996). In some instances men take on more domestic work; however this is not equivalent to the amount of responsibility shouldered by women in traditional gender roles (Sullivan, 2000). Pal and Saksvik (2008) argued that culture is very important in conceptualising work-family conflict because culture is part of both the work environment and the individual.

Bianchi, Sayer, Milkie and Robinson (2012) proposed that researchers need to be cognisant of the context when investigating the division of household labour because of the "complex and changing life courses and of work and family relations" (p. 62). In an African context, Kayongo-Male and Onyango (1984) and Webbink, Smits and de Jong (2012) identified that children or younger members in the family assist in completing household tasks, and more pressure is placed on female children to do household duties than their male counterparts. Therefore, gender roles are reinforced from an early age.

Based on the review of the family domain in context, the fourth research question aims to address whether there is a *difference between the number of children in the household and experience of the multiple dimensions of WIF and FIW*.

8. Cacadu District Municipality

South Africa consists of nine provinces, namely the Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West, and Western Cape. The Cacadu District Municipality is one of 46 district municipalities in South Africa, and is the largest district in the Eastern Cape Province (Cacadu District Municipality, 2011). This district municipality covers 34% (or 58 242 km²) of the geographical area of the Eastern Cape Province, with an estimated population of 412 000 (Introduction to the Cacadu District Municipality, 2011). The Cacadu District Municipality comprises nine local municipalities (Figure 7). As indicated by the geographical coverage in the figure below, the Cacadu District surrounds Nelson Mandela Bay. Its purpose is to provide small rural, and poor local municipalities with services to its communities (Cacadu District Municipality, 2011).

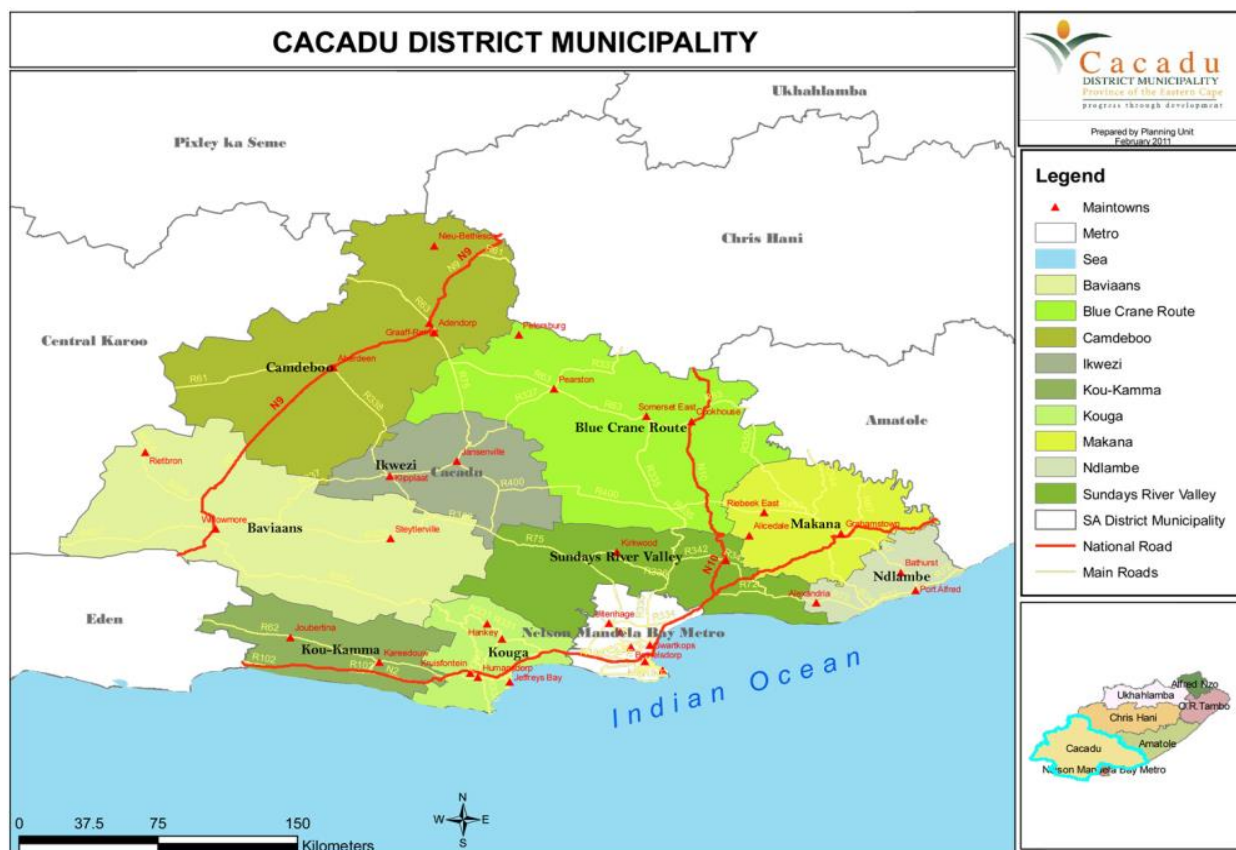


Figure 7: Geographical coverage of Cacadu District

Source: <http://www.cacadu.co.za/locationmap>

8.1. Cacadu labour force

The Cacadu District's labour force is characterised by a 45,1% of unskilled labour, of which only 25,2% and 15% have only primary education and no schooling, respectively (Cacadu District Municipality IDP, 2011). In addition, 21,6% of its labour force has a Grade 12 or higher education level. The sample of this study will therefore fall under this band of the district's labour force. As mentioned earlier, the Cacadu District Municipality is characterised as serving the rural and poor local municipalities. Therefore, in addition to the statistics provided by the Integrated Development Plan (IDP), Statistics South Africa's (Stats SA) Quarterly Labour Force Survey 2013 provided noteworthy statistics regarding the nursing profession in the Eastern Cape (Table 2).

Table 2: Eastern Cape Quarterly Labour Force Survey 2013 (Quarter 1)

Employment Status, Male and Female Nursing Associated Professionals in Urban and Rural Geographical type.

		Nursing associated professionals*		Midwifery associated professionals		Total		
Geographical type	Employment status	Male	Female	Male	Female	Male	Female	Total
Urban formal	Employed	1653	10261	-	-	1653	10261	11914
	Unemployed	-	-	-	-	-	-	-
Rural formal	Employed	-	432	-	-	-	432	432
	Unemployed	-	-	-	-	-	-	-
Total		1653	10693			1653	10693	12346

Stats SA (2013). *Quarterly Labour Survey 2013 (Quarter 1)*. Accessed on 29 May 2013 from

<http://interactive.statssa.gov.za/superweb>

*Nursing associated professionals, nurses, senior, student, pupil, nurses not elsewhere classified (nursing assistants/aids included under personal care and related workers)

According to the above table, there are no male midwifery associated professionals in urban and rural areas of the Eastern Cape, as well as no employed or unemployed male nursing associated professionals in the rural areas of the Eastern Cape. The above table also indicates the comparison between the number of male and female nurses. According to Zysberg and Berry, and Romem and Anson (as cited in Mkhize & Nzimande, 2007), women are more inclined to enter this profession for self-actualisation, while men are deterred from entering this profession because it is “women’s work”, thus suggesting that gender is a power factor in deciding to enter the profession.

Although the statistics above may be flawed due to lack of data for the rural areas of the Eastern Cape, it may be considered in order to understand the misdistribution of the nursing work force, where the nursing work force migrates to the urban areas, possibly due to better salaries and the availability of resources. However, the South African Nursing Council (SANC) provides different statistics for this province because it provides statistics based on those registered in the profession, whether in the private or public healthcare sectors and regardless of whether or not they are employed (Statistics of South African Nursing Council, 2013).

8.1. Cacadu household size

Table 3 is an illustration of the Cacadu community profile based on the 2011 Census. The information above provides useful information regarding the size of the households based on race in the district. Although the majority of households consist of one to four members, the statistics above also indicate that bigger households also exist. The majority of larger households (greater than 4 members) are prominent in black African and coloured population groups.

Table 3: Cacadu District Municipality Household Size by Population

	Black African	Coloured	Indian or Asian	White	Other	Total
Household size						
1	18,743	4,690	127	4,979	432	28,971
2	13,654	5,696	137	7,795	406	27,688
3	12,064	6,366	71	2,910	213	21,624
4	10,101	6,275	45	2,363	100	18,884
5	6,258	4,542	24	735	47	11,606
6	3,760	2,916	13	234	28	6,951
7	2,258	1,870	8	68	10	4,214
8	1,232	1,122	7	27	2	2,390
9	710	652	3	16	3	1,384
10+	976	932	1	7	3	1,920
Total	69,756	35,059	436	19,134	1,246	125,632

Stats SA (2013). *Community Profile 2011 Census*. Accessed on 29 May 2013 from,

http://interactive.statssa.gov.za/superweb/loadDatabase.do?db=HouseholdHead11_wd

Table 4 shows the Cacadu District inhabitants' marital status, as recorded by the Stats SA in 2011, and it allows (in addition to Table 3) the researcher to argue against the traditional definition of "family", which all too often refers to a nuclear family of a husband, wife and child(ren). Table 4 reveals that the majority of the household heads in the Cacadu District have never been married, whether this head is male (63,7%) or female (59,7%). Of the male household heads in this district, only 24,7% (54 393 male) are married, and 24,1% (55 600) of female heads are married. Furthermore, 8,6% and 8,2% of male and female household heads were living together like married partners, respectively.

Table 4: Cacadu District Marital Status by Gender and Population Group

Gender		Male						Female						
Marital status	Married	Living together like married partners	Never married	Widower/ Widow	Separated	Divorced	Total	Living together like married partners	Never married	Widower/ Widow	Separated	Divorced	Total	
Population group														
Black														
African	24,134	10,480	80,451	1,598	599	545	117,806	24,587	9,685	79,743	6,206	886	1,097	122,204
Coloured	16,374	7,354	50,044	1,284	317	465	75,838	17,560	8,189	49,999	4,136	428	970	81,282
Indian or														
Asian	238	44	555	11	-	10	858	152	32	430	30	8	8	659
White	12,938	1,051	8,099	638	110	775	23,611	12,976	997	7,062	3,153	86	1,082	25,355
Other	710	106	1,275	14	6	21	2,132	325	55	387	47	10	13	837
Total	54,393	19,035	140,424	3,546	1,032	1,816	220,246	55,600	18,959	137,621	13,572	1,418	3,169	230,338

Stats SA (2013). *Family Census 2011*. Accessed on 29 May 2013 from, http://interactive.statssa.gov.za/superweb/loadDatabase.do?db=Family11_wd

9. Conclusion

This chapter aimed to provide an overview of work-family conflict within the context of this study. In so doing, it aimed to provide a review of contextualised literature in the profession, family structures and geographical area in which the present research was conducted. It highlighted two approaches to understanding work-family conflict, namely the rational perspective and the gender perspective. Historical social and political issues have had an impact on the nursing profession, and thus the misdistribution of staff is still experienced in the Cacadu District. In addition to this, the working conditions also impact on healthcare institutions.

From a rational perspective, it is assumed that historical issues and working conditions, in conjunction with work characteristics in the nursing profession, influence work demands and consequently WIF because of the finite time and energy resources available to individuals. Because the nursing profession is regarded as a female-dominated profession, the literature also reviewed the gender perspective of understanding work-family conflict. The gender perspective of work-family conflict presents nurses with two conflicting ideologies: professionalism and domesticity. This chapter also discussed the concept of *Ubuntu* to illustrate the society in which this research was conducted. In doing so it was able to address the characteristics of the family domain. Lastly, the literature also addressed issues around the family domain; namely, the ideological and concrete components of defining family. This was addressed because of the prominent role family plays in providing support under the concept of *Ubuntu*.

CHAPTER 3

METHODOLOGY

1. Introduction

This chapter provides an overview of the research design and method employed in this study. A methodology, as stated by Terre Blanche, Durrheim and Painter (2006), is a strategy utilised in a study that includes the problem identified and the method used to collect the data. This chapter includes a discussion of the research aims and hypotheses, research design, the variables to address the research aims, steps taken to ensure the quality of the research method, the sampling technique, the sample, the data collection and analysis methods, as well as the ethical considerations.

2. Research aims

The study attempted to address four research aims. The first aim relates to the validity of the constructs of the measuring instrument used in this study. In order to investigate this, reliability and confirmatory factor analysis of the measuring instrument was conducted. The first aim is informed by literature maintaining that the understanding of work-family conflict can be transferred across cultures and is not culture specific with regard to the relationship between the multiple dimensions of the work-family construct (Hill et al., 2004; Mortazavi et al., 2009). Likewise, the transferability of the constructs on social support and gender ideology measures were also tested. The hypothesis for the first research aim was as follows:

H₀: The constructs of the measuring instrument is not culture specific

H₁: The constructs of the measuring instrument is culture specific

The second research aim relates to social support as an antecedent of FIW (Carlson & Perrewé, 1999; Seiger & Wiese, 2009). In order to determine the relationship between social support received from family members and FIW, a correlation analysis was run. The hypothesis was as follows:

H₀: There is no relationship between social support received from family members and the forms of FIW.

H₁: There is a relationship between social support received from family members and the forms of FIW.

The third research aim relates to shift work and time-based, strain-based, and behaviour based WIF and FIW. The current study attempted to ascertain whether there is a relationship between shift work and the experience of FIW and WIF. The statistical analysis conducted for this aim was a non-parametric two sample test. The hypothesis therefore states:

H₀: The distribution of the scores on the multidimensional work-family conflict scale in the different shifts of PNs is identical.

H₁: The distribution of the scores on the multidimensional work-family conflict scale in the different shifts of PNs differs.

The fourth aim was to investigate whether there is a difference between the number of children in the household and the experience of the multiple dimensions of WIF and FIW.

H₀: The distribution of the scores on the multidimensional work-family conflict scale in the different number of children in the household of PNs is identical.

H₁: The distribution of the scores on the multidimensional work-family conflict scale in the different number of children in the household of PNs differs.

3. Research Design

This section addresses the design of this study. This study made use of a quantitative cross-sectional design. This involves approaching the sample of respondents once to determine prevalence, where the sample is regarded as a cross-section of the population (Mann, 2003).

A research design is the strategic guideline to execute a particular research (Tredoux & Smith, 2006). Tredoux and Smith (2006) suggested that a flexible view should be adopted. In so doing the research design becomes a plan that defines the research in relation to its “elements, their interrelatedness, and methods” (p. 161). Terre Blanche et al. (2006) proposed that the research design decisions are related to four dimensions: purpose, paradigm, technique, and context. These four dimensions should be considered in order to maximise coherency and the validity of the research.

A positivist paradigm aims to test a theory or experience through measurements in order to predict and control forces in the context of the study (O'Leary, 2004). However, this study adopted a post-positivist paradigm, which, according to Robson (2002), acknowledges the influence of theories, knowledge and values of the researcher. Furthermore, Robson (2002) posited that the post-positivist paradigm pursues objectivity in the belief that reality exists, although the reality can be known imperfectly and probabilistically. In other words, this study aimed to test and describe the *experience* of work-family conflict in a specific profession (nursing) in a specific context (Cacadu District Municipality, Eastern Cape).

4. Variables

The independent variables consisted of the demographic information from the questionnaire. These variables determine the effect on the dependent variable(s) (Durrheim, 2006). Independent variables (IV) comprised of gender, age, marital status, and parental status, number of children in household, elderly person in household, education, title, shift work, personal income, and household income. The dependent variables included the time-based WIF; time-based FIW; strain-based WIF; strain-based FIW; behaviour-based WIF; behaviour-based FIW; satisfaction with social support; as well as gender ideology. The dependent variable (DV) is “variable whose value depends on the value of the IV” (Durrheim, 2006, p. 42).

5. Quality of research

Validity and reliability are essential in scientific research (Terre Blanche et al., 2006). Reliability is necessary but not sufficient for the validity of a measuring instrument (Cook & Beckman, 2006). This means that reliability is only one aspect that assesses the quality of the measuring instrument. In determining the validity and reliability of the measuring instrument the researcher ensures that the measurement error is minimised (Cook & Beckman, 2006; Field, 2013). Validity and reliability are both concerned with the interpretation of the *scores* of the measuring instrument and not the property of the instrument (Cook & Beckman, 2006).

5.1. Validity

According to Terre Blanche, Durrheim and Painter (2006), validity is concerned with whether the instrument is really measuring the concept it is supposed to measure. Validity is concerned

with the meaningful interpretation of the scores of the instrument (Cook & Beckman, 2006). For the purposes of this study, the researcher focuses on construct validity. Construct validity refers to “whether the scales measures the hypothetical construct it claims to measure” (Pretorius, 2007, p. 342). With self-report measures, factor analysis is used to assess the degree to which items on the measuring instrument represent the constructs being measured (Field, 2013; Pretorius, 2007). Therefore, factor analysis attempts to understand better the complexity of reality by estimating the effects of multiple interacting underlying dimensions (Tredoux, Pretorius, & Steele, 2006). Confirmatory factor analysis was used to assess the validity of the constructs of the work-family characteristics, social support and gender ideology scales, especially because of South Africa’s multicultural context.

5.2. Reliability

Reliability is concerned with whether the scores of the measuring instrument will yield consistent results if used repeatedly over time (Pretorius, 2007; Terre Blanche et al., 2006). The original reliability of the scales used in this study is reported below. This study will focus specifically on the internal consistency as a form of reliability. Internal consistency is used when a researcher wants to determine “whether the items on a test are consistent with one another in that they represent one dimension, construct, or area of interest” (Salkind, 2013, p. 114). The most widely used measure of testing internal consistency is the Cronbach’s alpha (α), which measures extent to which the items on the questionnaire are related to each other (Pretorius, 2007). Interpreting α coefficient is based on empirical standards, which suggest that α coefficient less than 0.6 is considered poor, α between 0.60 - 0.70 range is acceptable, and α over 0.80 are considered good (Sekaran, 1992). In other words, the closer the α coefficient is to 1, the better the reliability of the instrument (Sekaran, 1992).

5.3. Measuring instruments

This research involves the collection of data through a self-report survey questionnaire.

The questionnaire consists of three sections (Appendix 1):

Section A: Biographical information

Section B: Multi-dimensional work-family conflict (Carlson et al., 2000)

Section C: Social Support Questionnaire (Sarason, Sarason, Shearin, & Pierce, 1987)

Section D: Gender role ideology scale (Tsai, 2008)

Multi-dimensional work-family conflict scale was constructed and validated by Carlson et al. (2000) after rigorous development, based on three different studies. In addition, Carlson et al.'s (2000) multi-dimensional scale was administered on five different samples, thus minimising sample bias. This scale measures the three dimensions of work-family conflict: time-based conflict, strain-based conflict and behaviour-based conflict as well as the directions of work-family conflict. The internal consistency of time-based WIF = .87; time-based FIW = .79; strain-based WIF = .85; strain-based FIW = .85; behaviour-based FIW = .78; behaviour-based FIW = .85 (Carlson et al., 2000). The authors found that the scale had discriminant validity by examining the factor correlations from confirmatory factor analysis (Carlson et al., 2000). This multi-dimensional work-family conflict scale consists of 18 items, and the responses are rated on a 5-point Likert scale, ranging from "very seldom or never" to "very often or always" and scored 1 to 5 (respectively).

Social Support Questionnaire (SSQ) was first designed by Sarason et al. (1987). The SSQ was developed to quantify the availability and satisfaction of support to an individual. There were originally 27 items on the scale in 1983. However, these items were reduced to 6 items by Sarason and his colleagues. The scale's response is on a 6-point Likert scale ranging from "very dissatisfied" to "very satisfied", scored 0 to 5 (respectively). The shortened 6-item scale reported an internal reliability of .97 (Sarason et al., 1987). The developers of this scale conducted a principal components analysis, and results indicated that the level of satisfaction with social support (SSQS) accounted for 72% of the variance (Sarason et al., 1987). Additionally, the validation of the questionnaire indicated that social desirability did not account for structural (number of people listed – SSQN) or functional (level of satisfaction social support – SSQS) facets of social support (Lopez & Cooper, 2011; Sarason et al., 1987). The SSQS score is the total of all items divided by six (Sarason et al., 1987).

Gender role ideology scale measures gender ideologies of women as it applies to how participants view their work in relation to being a mother and a wife. The scale consists of five items and was adapted from earlier work conducted by Tsai (2008). Even though these questions were designed to measure role interdependence, the questions suggest cognitive appraisal of gendered roles of working women. Tsai (2008) suggested that results from this scale can be interpreted in terms of the cultural *value* of participants. These questions were adapted to measure gender role ideologies because, in an African context, culture has a profound effect on establishing and understanding gender role ideologies (Oyewumi, 2002). The responses of the five items indicate the level of agreement on a 5-point Likert scale, ranging from "strongly agree" to "strongly disagree" (Tsai, 2008). The original study reported an $\alpha = .43$ for this scale. For the purposes of this research, higher scores on this scale are interpreted as having non-traditional gender ideologies.

6. Sampling

6.1. Sampling Technique

The sampling technique employed for the questionnaire was cluster random sampling of RNs/PNs located in the five district hospitals in the Cacadu District Municipality, Eastern Cape. The cluster in this study was the district hospitals. The sample in this study was drawn from five clusters. Random sampling enables each element (in this case RN/PN) in the sampling frame to have an equal and independent opportunity of being selected for the sample (Terre Blanche et al., 2006). O'Leary (2010, p. 162) advocated the goals of the sample as follows:

1. Broad enough to allow you to speak about a parent population;
2. Large enough to allow you to conduct the desired analysis;
3. Small enough to be manageable.

6.2. Sample

The table below represents the demographic information of the sample. One hundred and six participants returned the questionnaire distributed in the five district hospitals in the Cacadu District Municipality. The demographic information of the sample (Table 5) consists of gender, age (year of birth), marital status, the number of children in the household, presence of elderly person/persons in the household, the title of the participant, and the personal and household income.

Table 5: Demographic Information of Research Sample

<u>Variable</u>	<u>Frequency</u>	<u>Percentage (%)</u>
Gender		
Male	9	8.49%
Female	97	91.51%
Age (based on year of birth)		
< 40	30	28.3%
40 – 50	44	41.5%
> 50	32	30.2%
Marital status		
Not married	52	49.52%
Married	40	38.09%
Divorced	8	7.62%
Widowed	3	2.86%
Cohabiting*	2	1.9%
Parental status		
Parent	86	80.95%
Not a parent	20	19.05%
Number of children in household		
0	14	13.33%
1	21	20%
2	42	40%
3	18	17.14%
4	4	3.81%
5	2	1.91%
6	3	2.86%
7 <	1	0.95%
Elder person(s) in household		
Yes	43	40.95%
No	63	59.05%
Title		
PN	81	77.14%
RN	13	12.38%
Manager	11	10.48%
Personal Income		
R5 001 – R10 000	20	19.05%
R10 001 – R15 000	55	52.38%
R15 001 – R20 000	19	18.1%
R20 001 – R25 000	7	6.67%
R25 001 – R30 000	4	3.81%

(table continues)

Table 5 Continued

<u>Variable</u>	<u>Frequency</u>	<u>Percentage (%)</u>
Household Income**		
R5 001 – R10 000	15	14.28%
R10 001 – R15 000	15	14.28%
R15 001 – R20 000	50	47.62%
R20 001 – R25 000	12	11.43%
R25 001 – R30 000	7	6.67%
R30 001 – R35 001	2	1.91%
R35 001 – R40 000	3	2.86%
R40 001 – R45 000	1	0.95%

* Cohabiting: A living arrangement in which an unmarried couple lives together in a long-term relationship that resembles a marriage

** Household income: The combined income of all household members from all sources.

Of the 106 participants in the study, 9 were male and 97, the majority of the participants, were female. The questionnaire utilised in this study asked participants to indicate their year of birth, rather than requiring participants to state their age. The table also shows that the nurses in the sample were between the ages of 34 and 53 at the time that data was collected. Participants between the ages of 53 and 44 years (born between 1960 and 1969) comprised 35.24% of the sample, and 30.48% of the study represented those participants that were between the ages of 43 and 34 years (born between 1970 and 1979).

The questionnaire requested participants to indicate their marital status: married, not married, divorced, widowed and cohabiting. In agreement with literature, the majority of the participants in the study were not married (49.52%), followed by participants who were married (38.09%). In addition, only 2 of the participants in the study were cohabiting.

Eighty-one percent of the participants were parents, and 19.05% were not parents. Even though 20 of the participants were not parents, only 14 of the participants indicated that there were no children in their households. In addition, the majority (40%) of the participants in this study indicated that they had 2 children in their household, and 28.45% of the sample had more

than 3 children in their households. Furthermore, a predominance of 59.05% of the participants reported no elderly person or persons in their households.

Personal income refers to the income that the participants received per month. Many (52.38%) of the participants received a personal income of between R10 001 and R15 000 per month, while 6.67% and 3.81% received between R20 001 and R25 000, and R25 001 and R30 000 per month respectively. The income difference may be because of the position held (or title provided) by the participants. The demographics section of the questionnaire similarly requested participants to indicate their household income. Household income refers to the income received by all members in the household from all sources. Five participants who received a personal income of between R5 001 and R10 000 per month, maintained this income level as household income, whereas many of the participants received a household income greater than their personal income.

7. Statistical Analysis

In order to analyse the data obtained from the sample, the psychology package of the computer-based programme *R* statistical programme was used. The *R psych package* includes functions most useful for psychological research (Revelle, 2014).

7.1. Descriptive statistics

The purpose of descriptive statistics was to describe the sample of the study. Descriptive statistics was also utilised to describe the scores of the scales used. This was realised by (a) describing variables, (b) central tendencies, and (c) measures of variability.

- a. Describing variables refers to representing the set of scores of a variable against the number of times that they occur throughout the sample (Durrheim, 2006). In other words, frequency distributions are computed. These *frequency distributions* will be presented in both tabular and graphical form.
- b. Central tendency refers to “estimates of the centre most scores in a distribution” (Durrheim, 2006, p. 196). Central tendencies are used as a single number that best describes the data of a specific variable. For this study, this represents the *mean* scores. The mean is the sum of all the scores for a variable, divided by the number of valid observations or cases (i.e. sample) (Pretorius, 2007).
- c. Measures of variability estimates the degree to which the scores are spread out from the central tendency score (Durrheim, 2006). For this description, the study used the *standard deviation* to calculate the variance of scores from the mean.

According to Durrheim (2006) and Pretorius (2007) the mean, variance and standard deviation are important as they form the basis of advanced inferential statistics.

7.2. Questionnaire analysis

Reliability analysis

It was important for this study to analyse the questionnaire in order to determine whether the items of the scale were reliable for the context in which they were used. Therefore, reliability testing was conducted in order to determine the internal consistency of the scales used in the questionnaire (Pretorius, 2007). The Cronbach's Alpha (α) was computed, which is the statistical measure of inter-correlation between items in scale, relating to the internal consistency (Pretorius, 2007). The Cronbach's α was computed for time-based, strain-based and behaviour-based WIF and FIW of the work-family conflict scale, SSQ scale, and the gender ideology scale. The Cronbach α was calculated using the Pearson correlation matrix as these scales consisted of

ordinal item response data (Gadermann, Guhn, & Zumbo, 2012). As stated, the closer the reliability coefficient is to 1, the better the reliability of the instrument (Sekaran, 1992).

Confirmatory factor analysis

Factor analysis is used to identify a number of factors that represent the relationship between inter-related variables (Durrheim & Painter, 2006; Pretorius, 2007). The use of factor analysis will determine the construct validity of the questionnaire. Because this study aims to test whether the constructs of the scales are culturally transferable, confirmatory factor analysis was conducted. Confirmatory factor analysis (CFA) is useful when researchers have “clear hypotheses about a scale – the number of factors or dimensions underlying its items, the links between specific items and specific factors, and the association between factors” (Furr, 2011, p. 91). Based on the literature and the researchers of the three scales used in this study it is evident that the multi-dimensional scale consists of six factors (Carlson et al., 2000) and the social support questionnaire consists of two facets (structural and functional social support) (Sarason et al., 1987). The gender ideology scale is assumed to have one factor because this scale has not been validated.

When interpreting the significance of factors in CFA two aspects need to be considered, namely the cut-off points of factor loadings, and the number of items loaded on the factor. Peterson (2000) postulated that there is no consensus of the cut-off points for high and low factor loadings. Furthermore, DiStefano, Zhu and Mindrila (2009) argued that high factor loading cut-off may result in fewer variables being considered significant on the factor, and lower cut-offs would include weaker variables on the factor. In social and behavioural sciences the cut-off point of factor loadings may be as low as 0.30, however 0.40 is considered important and factor loadings greater than 0.50 are considered practically significant (Hair, Anderson, Tatham, & Black, 1998). Floyd and Widaman (1995) noted that factors are generally considered to be significant if three or more items load on the factor.

The CFA of this study also included absolute fit indices and comparative fit indices. The absolute fit indices were employed to determine how well the existing scales fit the data of this study (the goodness of fit) (Field, 2009; Kenny, 2014). Therefore, the Chi-Squared test (χ^2) and the root mean square error of approximation (RMSEA) were used. The χ^2 is used to test the difference in unexplained variance (Field, 2009). However, the χ^2 of model fit may be affected by the sample size; hence, the RMSEA was also used. The RMSEA ranges from 0 – 1, where 0.06 or less is considered an acceptable fit (Hu & Bentler, 1999).

The comparative fit indices (CFI) were used to compare the χ^2 of the hypothesised model of the factors of the scale (informed by theory) to the baseline model (McDonald & Ho, 2002). The baseline model consists of all the variables in the scale and these are uncorrelated and therefore have no constraints (McDonald & Ho, 2002). Hu and Bentler (1999) suggest that a CFI greater than .90 is considered to be an acceptable fit.

7.3. Inferential statistics

Inferential statistics is used to allow the researcher to generalise about the population based on the sample (Durrheim, 2006a; Pretorius, 2007). Inferential statistics will be used to test hypotheses of the relationship between variables.

Correlations

To identify these relationships, *correlation coefficients* (r) were used. This is a numeric representation of the degree to which scores cluster around the regression line (Durrheim, 2006a). This coefficient would represent a positive, negative, strong or weak relationship between variables. This study made use of the Pearson's Product-moment correlation coefficient. Literature provides a rough guide for interpreting r , and the researcher will use these guidelines when interpreting the correlation coefficient. A $r < 0.20$ has a slight or negligible relationship, 0.20 - 0.40 has a definite but small relationship, 0.40 - 0.70 a substantial

relationship, 0.70 - 0.90 a marked relationship, and $r > 0.90$ has a very dependable relationship (Pretorius, 2007). The correlation analysis was necessary to address the second research question.

Two-sample tests

The two sample tests will allow the researcher to compare two groups and to ascertain whether they differ significantly on a specific variable. This analysis allowed the researcher to investigate the third research question. In order to run a two-sample test the data needs to have two independent groups and have one continuous variable to compare the two groups (Pretorius, 2007). To test differences between two groups one can do either a parametric (t-test) or a non-parametric (Mann-Whitney or Wilcoxon) test. In determining whether to use the t-test its assumptions must first be met; namely, that the scores in the groups are randomly sampled, the scores are normally distributed, and the two groups homogeneity of variance (Field, 2013; Pretorius, 2007). If any of these assumptions are violated the non-parametric, Wilcoxon rank sum test was used.

More than two sample tests

Two statistical techniques can be used to test differences between more than two samples, namely, the parametric Analysis of Variance (ANOVA) or the non-parametric Kruskal-Wallis. The same assumptions as the t-test determine whether to use an ANOVA or Kruskal-Wallis technique (Field, 2013; Pretorius, 2007).

8. Ethical Considerations

This research was granted ethical clearance from the Rhodes University Psychology Department's Research Project Ethics Review Committee (RPERC), and the university's Humanities Higher Degrees Committee (HHDC). The following ethical principles were adhered

to in this study: voluntary participation, informed consent, anonymity and confidentiality. Voluntary participation and informed consent was applicable for participants who read the participants information letter, and completed and returned the anonymous questionnaire.

In addition to this ethical protocol of the university, the Eastern Cape Department of Health and the institutions involved in this research requested that a report of the findings be made available to Cacadu Health district.

9. Conclusion

This chapter provided an overview of the research aims necessary to address the research questions. It also discussed the validity and reliability of the sub-scales of the measuring instrument used in the study. An overview of the sample of the study was also provided. As stated in this chapter, the study adopted a quantitative cross-sectional design from a post-positivist paradigm. To address the aims of the research the descriptive statistics, reliability analysis and inferential statistics were proposed. The study was granted ethical clearance from the university and the Eastern Cape Department of Health, as discussed in the chapter.

CHAPTER 4

DATA ANALYSIS

1. Introduction

This chapter presents the findings of this study. This chapter commences with the statistical abbreviations relevant to this chapter. Thereafter, it presents the descriptive statistics relating to the data collection instruments. The present study also analysed the relationship between the scales to determine the relationship between the variables through correlations. Lastly, two sample and more than two sample tests were conducted to identify the differences between scores on the measuring instrument. The results presented in this chapter were produced using R (R Core Team, 2012) and R *psych package* (Revelle, 2014).

See Appendix 1 for the questionnaire item codes.

2. Descriptive statistics of scores on scales

This section observed the mean, minimum and maximum scores, standard deviation, and frequency of the dimensions on the measuring instrument.

2.1. Mean, minimum and maximum scores and standard deviation of variables.

The first six variables (time-based WIF/FIW, strain-based WIF/FIW, and behaviour-based WIF/FIW) all had a minimum and maximum score of 3 and 15, respectively. These variables consisted of three items each and were scored using a Likert scale, where *very seldom or never* was coded 1 and *very often or always* coded 5.

Table 6: Means, minimum and maximum scores, and standard deviation of variables

Variable	<u>N</u>	\bar{X}	Min	Max	<u>SD</u>
Time WIF	106	9.07	3.00	15.00	3.06
Time FIW	106	5.71	3.00	15.00	2.82
Strain WIF	106	9.39	3.00	15.00	3.21
Strain FIW	106	5.35	3.00	15.00	2.70
Behaviour WIF	106	6.91	3.00	15.00	2.82
Behaviour FIW	106	7.23	3.00	15.00	3.15
SSQS	106	5.53	1.00	6.00	0.87
Gender Ideologies	106	17.74	5.00	25.00	4.23

Based on the response of the sample, time-based WIF had a mean of 9.07 (Table 6). This suggests that participants *sometimes* experienced that work interfered with family, based on the time allocated to work. The standard deviation of time-based WIF (3.06) indicated that some participants experienced this form of conflict *rather often* or *seldom*. The standard deviation measures the how well the mean represents the data (Field, 2013). The standard deviation of 3.06 suggests that the mean is a poor fit of the data, because it is relatively high in comparison to the mean of 9.07. On the other hand, participants felt that family *seldom* interfered with work based on the amount of time they spent in the family role, where time-based FIW had a mean of 5.71. Although the majority of the sample felt that family seldom interfered with work there were participants who had a maximum score of 15 on the time-based FIW dimension. The standard deviation of 2.82 is relatively high in comparison to the mean, and therefore the mean is a poor fit of the data.

Strain-based WIF had a mean of 9.39, which suggests that, on average, participants *sometimes* experienced the conflict of work interfering with family, based on the physical and emotional strain of work. The standard deviation for this variable (3.21) is relatively high in comparison to the mean, suggesting that the mean is a relatively poor fit of the data because the scores are dispersed and not closely clustered around the mean. The strain-based FIW conflict appeared less invasive, with a mean of 5.35, suggesting that strain-based FIW is *rather seldom* experienced. Nevertheless, the standard deviation is relatively high (2.70) in comparison to the mean, and suggests that the sample's scores are not closely clustered around the mean.

Behaviour-based conflict, both of WIF and FIW, seems to suggest that, on average, these two domains seldom interfered with each other based on the behaviour used in each. Behaviour-based WIF and FIW had a mean of 6.91 and 7.23, respectively. Similar to the other variables in the work-family conflict scale, the standard deviations are relatively high in comparison to the mean (2.82 and 3.15, respectively).

The social support scale measured the overall satisfaction with the support provided by family, friends and colleagues. The mean on this scale was 5.53. In other words, participants perceived their social support to be *fairly satisfactory*. The standard deviation of .87 suggests that the samples' scores were clustered around the mean, and therefore the mean is an accurate representation of the satisfaction with social support of the sample.

Lastly, gender role ideology had a mean of 17.74. This scale measured opinions on gender roles, the higher the score the less prominent the traditional gender roles are in the participants. The mean score on this scale suggests that, on average, participants had less prominent traditional ideologies of gender roles. The standard deviation for the gender ideology scale is 4.23, suggesting that the scores of the sample are fairly dispersed around the mean.

2.2. Distribution Analysis

Frequency distributions provide a graphical representation of scores on a scale and the distribution of these scores (Terre Blanche et al., 2006). This graphical representation also provides the variability and central tendency of the scores. Terre Blanche et al. (2006) stated that the shape of the frequency distribution describes the skewness (degree of deviation from symmetry) of the scores.

Distribution of work-family conflict

The diagram below (Figure 8) indicates that the scores were normally distributed, where the majority of the participants scored between 8 and 10 on time-based WIF. In other words, the majority of the participants in the sample sometimes experienced time-based WIF.

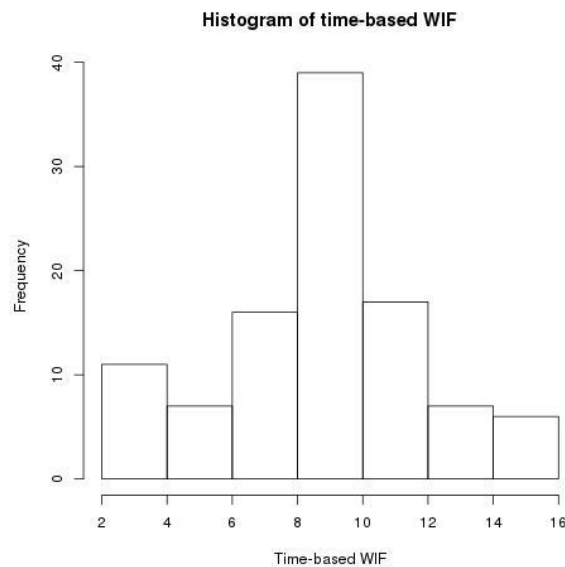


Figure 8: Distribution of Time-based WIF

Figure 9 below reveals that the time-based FIW is positively skewed (asymmetrical distribution), where there is a cluster of low scores for this variable. Therefore, the majority of the participants reported that they very seldom or never experienced time-based FIW.

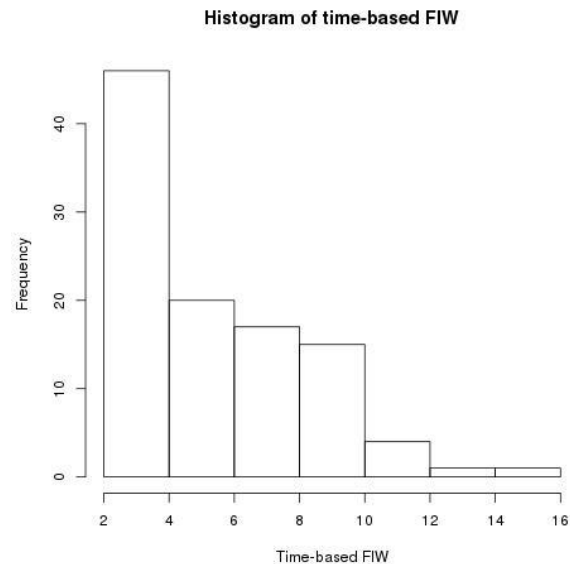


Figure 9: Distribution of Time-based FIW

As seen in figure 10 below, strain-based WIF is normally distributed. This means that the majority of the scores are clustered in the centre of the distribution and other scores trail off towards the lower and upper extremes (score range 3 to 15, respectively). The distribution of the scores on the strain-based WIF variable is, hence, regarded as having a symmetrical distribution.

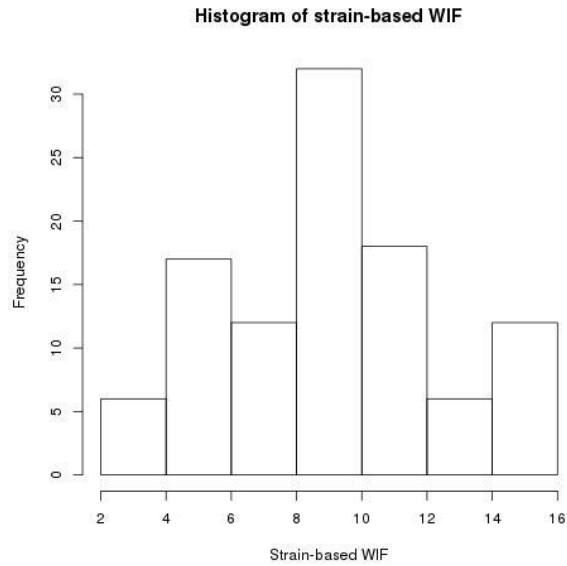


Figure 10: Distribution of Strain-based WIF

On the other hand, strain-based FIW is positively skewed, since the majority of the responses are clustered around the low scores (Figure 11). That is, the majority of the participants in the sample reported experiencing strain-based FIW seldom or never.

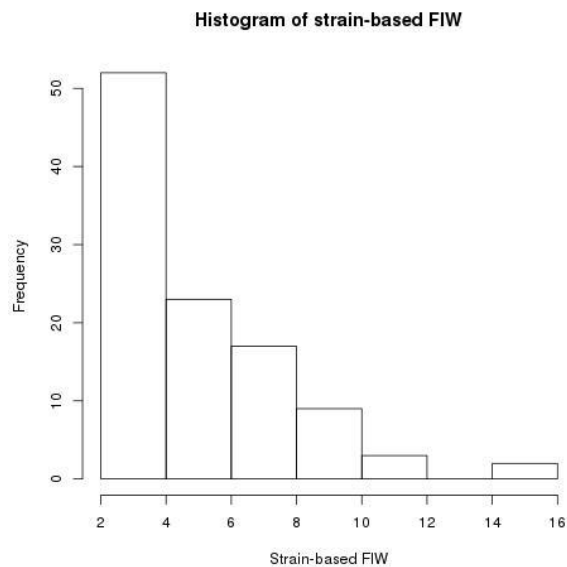


Figure 11: Distribution of Strain-based FIW

Both forms of behaviour-based conflict (WIF and FIW) are normally distributed, as presented in figures 12 and 13 below.

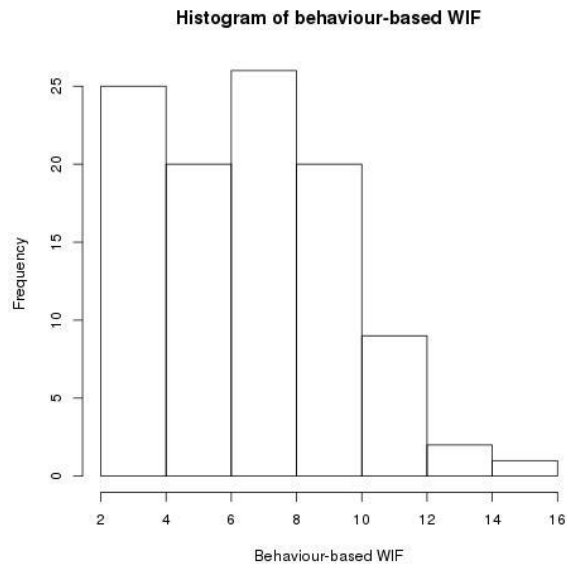


Figure 12: Distribution of Behaviour-based WIF

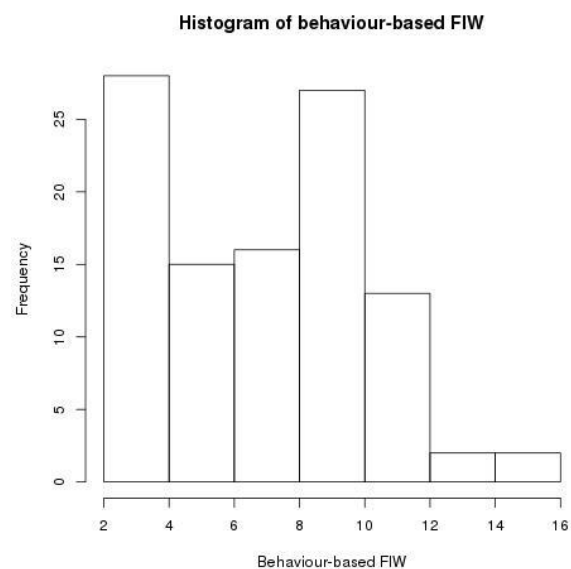


Figure 13: Distribution of Behaviour-based FIW

Distribution of Social Support Questionnaire Satisfaction (SSQS)

The figure below indicates that scores on the satisfaction of social support are negatively skewed, since there is a cluster of high scores and the tail of the scores is at the lower end (Figure 14). The asymmetrical distribution of the social support satisfaction indicates that the majority of the participants in the sample reported that they are very satisfied with the social support that they receive.

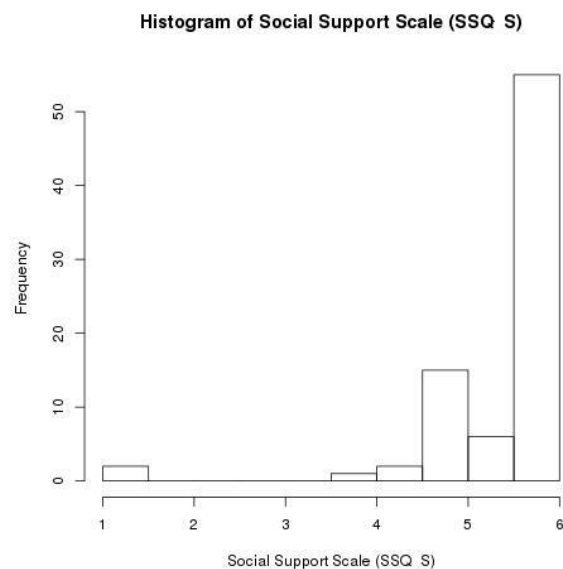


Figure 14: Distribution of SSQS

Distribution of Gender Role Ideologies

The figure below represents the distribution of the scores on the scale of gender role ideology. The results suggest that the distribution on this scale is normally distributed (Figure 15). The majority of the sample reported a neutral response to the gender ideology scale.

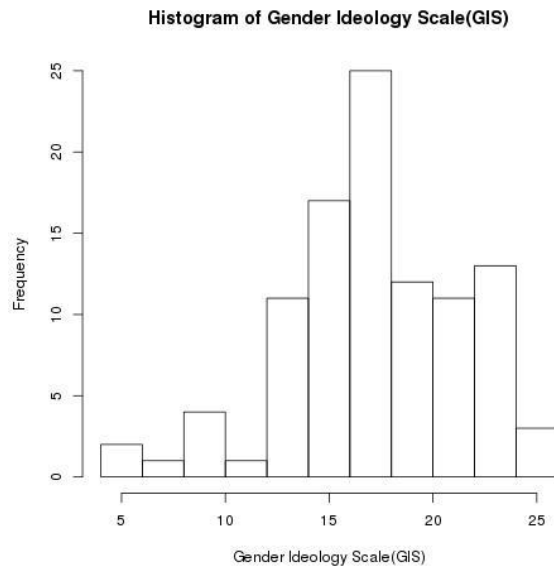


Figure 15: Distribution of Gender Ideologies

3. Questionnaire analysis

The following section analyses the reliability and validity of the scales used in the measuring instrument of this study.

3.1. Reliability analysis

This section will report on the reliability tests conducted on the scales used in this study; namely, the multi-dimensional work-family conflict scale, social support scale and the gender ideology scale. The reliability and item analysis is used for, amongst others, testing the reliability of the scales already in use. The purpose of conducting the reliability analysis in this study was to address the first research aim relating to the cultural sensitivity of the measuring instrument. This function provides Cronbach alpha (α), and the average inter-item correlation (r).

Multi-dimensional work-family conflict scale

The score for each item ranged from 1 to 5, where, 1 represents “very seldom or never” and 5 “very often or always”. There were 18 items on the scale – three items per dimension. The maximum score that participants could achieve in this scale was 75, and a minimum score of 15. Interpretation of the Cronbach’s α of the time-based WIF ($\alpha = 0.89$), strain-based WIF ($\alpha = 0.87$) and FIW ($\alpha = 0.86$), and behaviour-based FIW ($\alpha = 0.84$) dimensions, according to Sekaran (1992) suggests that these dimensions have “good” internal consistency (Table 7). Moreover, time-based FIW and behaviour-based WIF reported Cronbach α of 0.79 and 0.74, respectively. Interpretations of these scores represent “acceptable” internal consistency of the time-based FIW and behaviour-based WIF subscales.

Table 7: Reliability analysis of measuring instrument: multi-dimensional work-family conflict, social support questionnaire, and gender ideology scale

Dimension	α	r
Time-based WIF	0.89	0.73
Time-based FIW	0.79	0.57
Strain-based WIF	0.87	0.69
Strain-based FIW	0.86	0.67
Behaviour-based WIF	0.74	0.49
Behaviour-based FIW	0.84	0.64
Social support questionnaire satisfaction	0.95	0.78
Gender ideology	0.71	0.33

Social support questionnaire satisfaction (SSQS)

The internal reliability of the social support questionnaire had a Cronbach’s α coefficient of 0.95 (Table 7). Based on empirical standards, this instrument is excellent (George & Mallery, 2003). The average inter-item correlation was computed as 0.78, interpreted as a strong positive relationship between the items on the scale.

Gender ideology scale

Table 7 also shows the reliability analysis of the gender ideology scale. This scale consisted of 5 items with scores ranging from 1 to 5, where 1 represented “strongly disagree” and 5 “strongly agree”. The fourth item on this scale had a reverse score. This scale had an internal consistency of $\alpha = 0.71$, an acceptable α value (Sekaran, 1992). The average inter-item correlation was 0.33, representing a low correlation with a weak positive relationship between items on the scale.

3.2. Confirmatory factor analysis

In order to assess the construct validity of the scales used in this study, confirmatory factor analysis (CFA) was conducted. In the CFA of this study, absolute fit indices and comparative fit indices were used to determine whether the model fits the data. The goodness of fit of the constructs of the measuring instrument was evaluated using absolute and relative indices. The absolute goodness of fit indices calculated were χ^2 goodness-fit-statistic and the root mean square error of approximation (RMSEA). In addition, two comparative fit indices were computed: comparative fit index (CFI) and Tucker-Lewis index (TLI). According to Hu and Bentler (1999), RMSEA values smaller than 0.06 are indicative of an acceptable fit, furthermore values greater than 0.95 for CFI are an adequate model fit. Byrne (2001) proposed that a TLI value closer to 0.95 is considered good model fit to the data.

Table 8: Confirmatory factor analysis

Scale	χ^2	df	p	Comparative fit index	Tucker- Lewis index	Root mean square error of approximation
1. Multi-dimensional work-family conflict scale	168.00	120	0.00	0.95	0.93	0.06
2. SSQS*	52.91	9	0.00	0.92	0.88	0.24
3. Gender ideology scale	150	10	0.00	0.90	0.79	0.17

* Satisfaction with social support (functional)

1. Converged normally after 40 iterations

2. Converged normally after 30 iterations

3. Converged normally after 25 iterations

Multi-dimensional work-family conflict scale

Table 8 shows that the CFA converged in 40 iterations, yielded a model χ^2 statistic of 168.00 (df = 120, $p = .00$). Furthermore, the RMSEA = .06 suggesting that the model is an acceptable fit to the data. The comparative fit index and the Tucker-Lewis index also propose that the multi-dimensional work-family conflict scale (6 factors) is a good fit to the data. Therefore, the scale has construct validity.

Social support questionnaire

The six items regarding the functional facet of social support on the SSQS converged in 30 iterations, where $\chi^2 = 52.91$ (df = 9; $p = 0.00$) (Table 8). However, RMSEA, CFI and TLI indicate that SSQS fits poorly to the data of the sample, with none of the fit indices meeting their criterion. Therefore, construct validity was not obtained as the scale measured various constructs.

Table 9: Satisfaction with social support factor analysis

	Factor 1	Factor 6
Item 1		0.15
Item 2		0.15
Item 3		0.11
Item 4	0.03	
Item 5	0.27	
Item 6	0.33	

* SSQS = 0.71

As seen in table nine, the factor analysis on a varimax rotation for the SSQS scores revealed two distinct factors that in combination accounted for 71% of the variance. Item two and three loaded on factor 6, and items four to six loaded on factor 1. Based on Floyd and Widaman's (1995) suggestion on the number of items loaded on a factor, only factor 1 can be considered. However, Hair et al.'s (1998) recommendations on factor loading cut-off points indicate that only item 6 meets the minimum cut-off point. Hence, none of the factors relating to the satisfaction with social support can be considered significant.

Gender ideology scale

The CFA converged in 25 iterations for the gender ideology scale. The results from this study suggest that the model is poorly fit to the data of the sample; where RMSEA = 0.24, CFI = 0.92 and TLI = 0.88.

Table 10: Gender ideology scale factor analysis

	Factor 1	Factor 7
Item 1		.41
Item 2		.37
Item 3		.65
Item 4	1.40	
Item 5	1.63	

* Gender ideology scale = 1.38

The factor analysis on a varimax rotation for the scores on the gender ideology scale revealed two distinct factors that in combination accounted for 1.38 of the variance. Although factor 7 had three items loaded on it, item 1 and 2 are weak loadings and item 3 is the only item in the factor that can be considered practically significant. Therefore, the factors on the gender ideology scale can be considered significant.

Therefore, the results of the questionnaire analysis suggest that the null hypothesis be partially rejected. The results indicated null hypothesis be accepted for the multi-dimensional work-family conflict scale as it had construct validity, and is thus not culture specific. However, the results of the social support questionnaire and the gender ideology scale suggest that the null hypothesis be rejected.

4. Inferential Statistics

4.1. Correlations

This section of the analysis examined the relationship between variables used within the measuring instrument. Correlation analysis was conducted across the variables. These variables

included time-based WIF, time-based FIW, strain-based WIF, strain-based FIW, behaviour-based WIF, behaviour-based FIW, satisfaction with social support (SSQS), and gender role ideology. The table below (Table 9) indicates that the significant relationships in the measuring instrument, with p-values greater than .05 marked at a confidence level of 95%.

Table 11: Correlation analysis of measuring instrument

	1	2	3	4	5	6	7	8
1. Time-based WIF	1.00							
2. Time-based FIW	0.25*	1.00						
3. Strain-based WIF	0.56*	0.31*	1.00					
4. Strain-based FIW	0.30*	0.49*	0.37*	1.00				
5. Behaviour-based WIF	0.31*	0.23*	0.43*	0.49*	1.00			
6. Behaviour-based FIW	0.23*	0.27*	0.30*	0.35*	0.63*	1.00		
7. SSQS	-0.13	0.02	-0.05	0.05	0.01	0.16	1.00	
8. Gender ideology	0.04	-0.00	-0.03	0.02	0.06	0.12	0.38*	1.00

* $p < 0.05$

The results signify a significant relationship between time-based WIF and time-based FIW, with $r = 0.25$ ($p < 0.05$). Although this is a low correlation, it translates into a small positive relationship between these variables. In other words, as time-based work-to-family conflict increases, time-based family-to-work conflict increases 0.25 times. This aligned with literature around the rational perspective of understanding work-family conflict that suggests that time is a finite resource available to individuals.

Strain-based WIF and strain-based FIW are positively related to time-based WIF and time-based FIW. These results indicate that there is a positive relationship between strain experienced (whether WIF or FIW) and the time that is available to participants. Strain-based WIF has an $r = 0.56$ ($p < 0.05$) with time-based WIF. Therefore, there is a substantial positive relationship between strain-based WIF and time-based WIF. This can be interpreted as strain that is experienced from work to family domains by the participants, based on time constraints to shift emotionally, or physically, from work to family. In addition to this, there is a positive small relationship between strain-based WIF and time-based FIW, with an $r = 0.31$ ($p < 0.05$). Accordingly, as strain-based WIF is experienced a small positive increase in time-based conflict of family interfering with work exists.

Strain-based FIW is positively related to time-based WIF, with an $r = 0.30$ ($p < 0.05$). This means that there is a small relationship between strain-based FIW and time-based WIF. There is also a positive relationship between strain-based FIW and time-based FIW ($r = 0.49$, $p < 0.05$). This is interpreted as a substantial positive relationship, where strain-based FIW increases as time-based FIW increases.

There is also a positive relationship between strain-based WIF and strain-based FIW. The correlation is $r = 0.37$ ($p < 0.05$). This is a low correlation, which is interpreted as a small relationship between these two variables. This is aligned with the spillover theory, which stipulates that strain experienced in one domain spills over to the next domain.

Results from this study also reveal there is correlation between behaviour-based conflict and time- and strain-based conflict. These variables all show small relationships with behaviour-based WIF, except for strain-based WIF ($r = 0.43$, $p < 0.05$) and strain-based FIW ($r = 0.49$, $p < 0.05$), which have substantial relationships. There is also a positive substantial relationship between behaviour-based WIF and behaviour-based FIW with an $r = 0.63$ ($p < 0.05$). These

substantial relationships draw attention to the fact that when behaviour is used to deal with either work or family responsibilities, role conflict arises.

Interestingly, results show no correlation between the variables of the work-family conflict scale and satisfaction with social support (SSQS). This may signify, even though support is available (and participants are satisfied with the support provided), that conflict will still be prevalent. Alternatively, the results may be an indication that the support scale did not relate directly with items of the work-family conflict.

Lastly, table 9 indicates that there is a relationship between satisfaction with social support and gender ideology ($r = 0.38$; $p < 0.05$). This is a positive relationship that is definite but small, according to Pretorius (2007).

4.2. Social support from family and forms of FIW

H₀: There is no relationship between social support received from family members and the forms of FIW.

H₁: There is a relationship social support received from family members and the forms of FIW.

To address the second research aim, correlations were conducted between social support received from family members and the various forms of FIW. For these purposes, if family members were reported on the social support questionnaire, responses were coded 0 and if no family members were reported they were coded 1. The table below (Table 12) indicates the negative small relationship between social support received from family members and

behaviour-based FIW ($r = -0.23$, $p < 0.05$). Therefore, if no family members were reported to provide social support behaviour-based FIW increased.

Table 12: Relationship between SSQ family and forms of FIW

	1	2	3	4
1. SSQN (family)	1.00			
2. Time-based FIW	0.08	1.00		
3. Strain-based FIW	0.06	0.48*	1.00	
4. Behaviour-based FIW	-0.23*	0.27*	0.35*	1.00

* $p < 0.05$

The result from this analysis suggests that the null hypothesis (H_0) be partially rejected. Thus, there is a relationship between support received from family members and the one of the forms of FIW.

4.3. Shift work and forms of WIF and FIW

To conduct this analysis the item on the measuring instrument was coded 0 daytime shift and 1 for two shifts. The purpose of this analysis was to compare the two groups according to the shifts reported and the extent to which they differ with regards to their experience of time-based, strain-based and behaviour-based WIF and FIW. Firstly, a normality test (Shapiro-Wilk test) was conducted to determine whether to use the t-test or the Wilcoxon rank sum test. Results from the normality test indicated that day shift $W(64) = 0.95$, $p = 0.02$ and two shifts $W(37) = 0.92$, $p = 0.02$ were not from a normally distributed population, therefore a non-parametric test was conducted.

H_0 : The distribution of the scores on multi-dimensional work-family conflict scale in the different shifts of PNs is identical.

H_1 : The distribution of the scores on the multi-dimensional work-family conflict scale in the different shifts of PNs differs from each other.

Table 13: Distribution of scores on multi-dimensional work-family conflict scale based on the shift of PNs

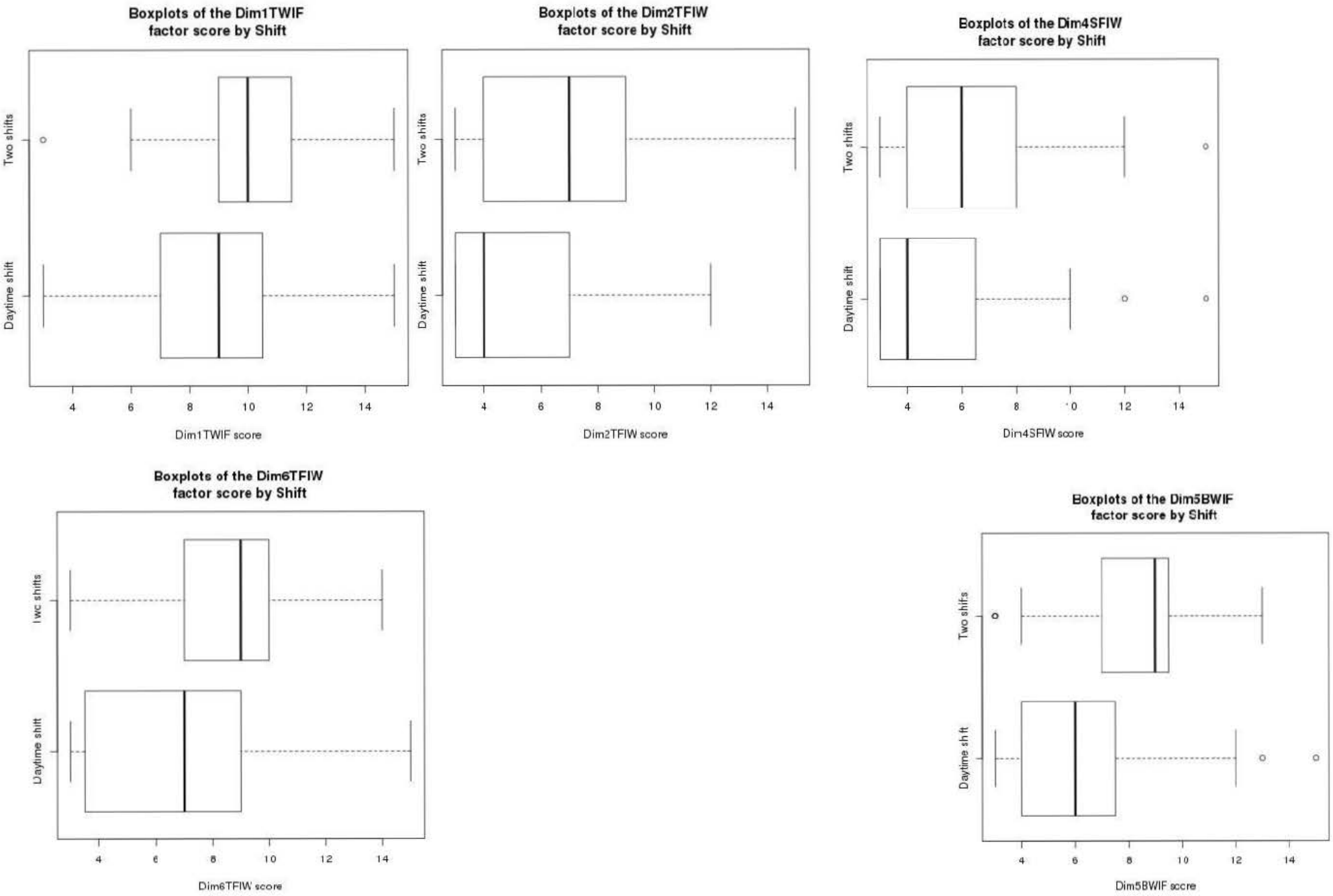
	Wilcoxon rank sum test (W)	p -value
Time-based WIF	682.50	0.00
Time-based FIW	760.50	0.01
Strain-based WIF	1026	0.57
Strain-based FIW	829	0.01
Behaviour-based WIF	623.50	0.00
Behaviour-based FIW	742.6	0.01

The Wilcoxon rank sum test showed that the two different shifts had significantly different median in time-based WIF ($W = 682.5$, $p = 0.00$), time-based FIW ($W = 760.5$, $p = 0.00$), strain-based FIW ($W = 829$, $p = 0.01$), behaviour-based WIF ($W = 623.5$, $p = 0.00$), and behaviour-based FIW ($W = 742.5$, $p = 0.00$). Results also indicated that for the different shifts reported, the medians of these two groups were not significantly different ($W = 1026$, $p = 0.57$).

To illustrate the significance of these results, it may be useful to refer back to the descriptive statistics (Table 6, p. 70) together with the boxplots presented on page 86 below. Firstly, the mean score for time-based WIF was reported at 9.07, however the median for participants who work two shifts in the present study increased to 10. Furthermore, the mean of the sample on

time-based FIW was 5.71, but the median for participants who work two shifts increased to 7, and decreased to 4 for participants working daytime shifts. These results indicate that, on average, nurses who work two shifts report higher time-based WIF and FIW.

Secondly, strain-based FIW had a mean score of 5.71 (p.70). Nevertheless, participants who work daytime shifts reported less strain-based FIW, with a median of 4. As a result, nurses who work daytime shifts seldom experienced strain-based FIW. Thirdly, the sample's behaviour-based WIF and FIW had a mean of 6.91 and 7.23, respectively. The scores on the behaviour-based WIF show that, for two shift participants the median increased to 9, and behaviour-based WIF decreased to 6 for daytime shift workers. Behaviour-based FIW's median for two shift workers increased to 9. These results are inconsistent with the literature, which suggests that the behavioural expectations for the nursing profession are similar to the family domain because the profession is female-dominated.



The results of this analysis suggest that the null hypothesis be partially rejected, where the null hypothesis is accepted only for the distribution of the strain-based WIF. That is to say, that regardless of the shift worked the sample's distribution of scores for strain-based WIF is identical, with a mean of 9.39 and standard deviation of 3.21.

4.4. Number of children in household and multidimensional work-family conflict

To analyse the last research question a non-parametric Kruskal-Wallis rank sum test was used because normality was violated. The data regarding the number of children in the household was coded 0 (no children), 1 (one child), 2 (2 children) and 3 (more than three children) for this statistical analysis.

H₀: The distribution of the scores on multidimensional work-family conflict scale in the different number of children in the household of PNs is identical.

H₁: The distribution of the scores on the multidimensional work-family conflict scale in the different number of children in the household of PNs differs from each other.

Table 14: Distribution of scores on multi-dimensional work-family conflict scale based on the number of children in the household

	Kruskal-Wallis rank sum test (H)	df	p-value
Time-based WIF	5.54	3	0.14
Time-based FIW	4.63	3	0.20
Strain-based WIF	14.25	3	0.00
Strain-based FIW	2.60	3	0.46
Behaviour-based WIF	1.64	3	0.18
Behaviour-based FIW	3.91	3	0.27

The Kruskal-Wallis H-test was used to compare multi-dimensional work-family conflict of various groups depending on the number of children in the household. The results were found to be significant only for strain-based WIF ($H(3) = 14.25, p = 0.00$) (Figure 16). There were no other significant results for time-based WIF and FIW, strain-based FIW, behaviour-based WIF and FIW). Consequently, the null hypothesis is partially accepted, except for strain-based WIF of the work-family conflict scale where the null hypothesis is rejected.

Strain-based WIF was calculated to have a mean of 9.39. The median for strain-based WIF decreased to 7.5 for participants who had no children in their household, whilst it increased to 11 for participants who had two children in the household. This indicates that having no children in the household results in work strain only sometimes interfering with family, because there are no children who may demand emotional labour from the participants. Furthermore, those nurses in the sample who had two children in the household often experienced work interfering with family based on strain. Having one child or more than three children in the household indicated a median of 9 (which is similar to the mean of the sample). These results are in agreement with the literature on family size and WIF. Specifically, the more children (and younger children) there are in the household, the greater the amount of interference between the work and family domain. In addition, literature on the context in which this study is conducted suggests that younger members often assist with household labour, hence, at a certain point (in the case of this research – 2) interference between the domain reflects the mean of the sample.

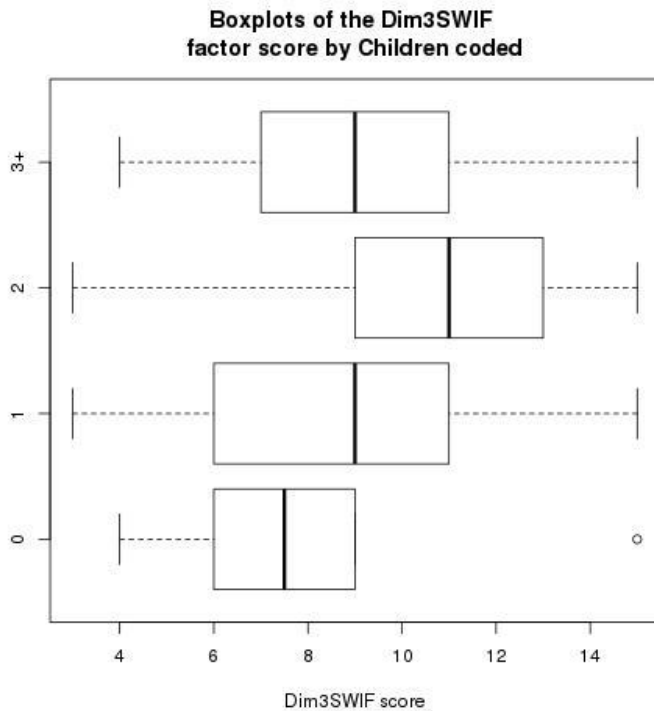


Figure 16: Number of children and strain-based WIF

5. Conclusion

Preceding the statistical analyses relating to the four aims of the research, the researcher conducted descriptive statistics in order to describe the sample and the data collected. To address the aims two forms of analysis were conducted, namely questionnaire analysis and inferential statistical analysis. Results from the reliability analysis indicated that the scales of the measuring instrument were reliable based on Sekaran (1992) and George and Mallery's (2003) guidelines for interpreting the Cronbach α . Results from the second research aim supported the rational view of understanding work-family conflict. Specifically, there is a relationship between time-based, strain-based and behaviour-based WIF and FIW. H_0 of the third aim was rejected, implying that for non-traditional gender ideology PNs, satisfaction with social support received has no significant impact on the multi-dimensions of work-family conflict. Results dealing with the fourth aim reported that non-traditional gender ideologies of

PNs do not moderate the relationship between marital status and family interfering with work. The results of the last research aim found a relationship between social support provided by family members and behaviour-based WIF.

CHAPTER 5

DISCUSSION

1. Introduction

In this chapter, the results from the data, which was collected and analysed will be discussed in light of the literature which has been reviewed. The four aims of this study on PNs were to investigate:

- The construct validity of the measuring instrument;
- The relationship between social support provided by family members and the forms of FIW;
- Whether different PNs in different shifts report different WIF and FIW; and
- Whether the number of children in households indicates differences in FIW.

2. Descriptive statistics

This section discusses the descriptive statistics results of demographics of the sample (specifically the gendered nature of the profession) and the results of the questionnaire.

2.1. The gendered profession and its implications

Despite various strategies to encourage men to enter the profession, the results from this study demonstrate that the profession is still a female dominated one. These results are consistent with national statistics, indicating that males represent only 10% of the nursing profession. The deeply engrained stereotypes of the profession as being a female caring or nurturing profession will only perpetuate gender bias in the profession because it will limit the recruitment and

retention of men in the profession. This, in turn, will be detrimental to the healthcare challenges such as work overload and long working hours relating to shortage in the profession. A strategy to combat the shortages (or uneven distribution) experienced in the profession may be to make the profession more attractive to men; however this will require systemic change. It is not enough to attract individuals into the profession to curb the shortage experience through misdistribution by, for example providing bursaries to obtain a formal higher education qualification. Rather, re-establishing the image and status of the profession in the society is necessary. The role identity theory suggests that an individual internalises socially constructed behaviour, hence society impacts on self-identity (Schwartz et al., 2011). The socially constructed behaviour of the nursing profession as being caring and nurturing influences role choices, which may explain why men do not enter the profession because these behaviours are associated with women.

This observation has implications on the self-administered multi-dimensional work-family conflict and gender ideology scale because, according to Marks (1998), the role identity theory may explain that it may be easier for female nurses to internalise and fulfil the behavioural expectations of both their work and family roles. For this reason, the participants reported lower work-family conflict and maintained neutral gender ideologies.

2.2. Multi-dimensional work-family conflict

Media coverage on strikes by healthcare professionals (including nurses) demonstrating their dissatisfaction with work overload, time commitment to their jobs, and salaries (McHugh et al., 2011), lead the researcher to assume that work-family conflict would be perceived in this context. The work-family conflict phenomenon was analysed based on the three forms of conflict as identified by Greenhaus and Beutell (1985). These forms related to time-based, strain-based, and behaviour-based conflict. In addition, Carlson et al. (2000) extended these

forms in the direction of conflict, namely work interfering with family (WIF) or family interfering with work (FIW).

Conflict regarding these dimensions varied, either to a smaller or to greater extent. This suggests that, even though nurses may have little or sometimes increased conflict, conflict is always present. Work-family scholars, such as Fisher et al. (2009), have argued for a move towards balance because human resource policies have been put in place to assist individuals to manage or co-ordinate the transitions between work and family roles. The researcher would resist suggesting that participants in this study experience balance, because Caproni (2004) argued that work-family *balance* is an idealistic state as it assumes that individuals have control and choice over their lives, despite that life (and especially the work domain for this profession) is rich with unpredictability. In addition, the previous section also highlights the implications of the self-administered work-family conflict scale and the socially constructed behaviour associated with women and the nursing profession.

Time-based conflict

Time-based conflict refers to external involvement of individuals at work; such that external demands of shift work (work schedule) inhibits participation in taking care of home-related responsibilities (Carlson & Frone, 2003).

Results of this study agree with the rational view, namely that individuals have a limited amount of time and energy (Cooper et al., 2001). Results indicated that when time-based conflict is experienced from the work to family domain, time-based conflict from family to work is lower. In other words, time is finite and therefore time spent in one role results in time taken from another. As discussed in the literature chapter, the nursing profession is characterised by shift work (Monk & Folkard, 1992). According to Greenhaus and Beutell (1985) time-based WIF

is positively related to shift work. On average, the results of this study indicated that the nurses *sometimes* experienced time-based WIF. This captures the influence of shift work on perceived work interference with family because of shifts alternating. Shift work requires nurses to work day and night shifts. This form of work arrangement allows nurses to have a few days off before shift rotations. Common practice in this profession is that staff work 10 – 12 hour shifts (Letvak, 2001), 40 hours a week (which is constitutionally governed), thereby allowing for approximately 3 days off a week. This is one explanation why nurses in this particular sample only sometimes experience time-based conflict.

With regard to time-based FIW, participants scored lower. According to Cartwright (1978) and Bryson et al. (1978) the characteristics of the family and living arrangements impact on whether participants experience time-based conflict in the family domain. The size of the household is one of these characteristics, where larger family (household) size is more demanding than smaller families (Cartwright, 1978). While the traditional definition of family is not a predominant feature of this sample, the characteristics of the sample indicate that the size of the household may still be influencing time-based family interference with work. The results indicated that the household consisted of children (related or unrelated), and elderly persons in household. The time-based conflict may have been low for several reasons, namely participants may not view time spent with family as a responsibility as a parent or guardian; elderly persons in the household may be able to relieve the participant of the responsibilities; children in the household may be able to assist with household chores and responsibilities.

Strain-based Conflict

According to Cooper et al. (2000) and Greenhaus and Beutell (1985), strain-based conflict is the emotional interference of one role on another. Emotional interference of one domain on the other is also known as negative emotional spillover (Bartolomé & Evans, 1979; Cooper et al.,

2001; Greenhaus & Beutell, 1985). From the rational view, individuals have limited energy (Cooper et al., 2001). Therefore, strain-based conflict evaluates the physical and emotional energy available to individuals. The results from this study indicated that the nurses *sometimes* perceive strain-based WIF. Sources of these results may be attributed to the emotionally taxing nature of the profession. For example, nurses sometimes: witness death and dying patients and care for sick patients (McVicar, 2003); work with limited resources to conduct the services for which they are employed; and perceived work overload (Breier et al., 2009; Pillay, 2009). Death and dying has been found to be the second greatest source of stress, and nurses have reported higher levels of stress because of their inadequacy to cope with this (McVicar, 2003). The results also illustrate Carlson and Frone's (2003) psychological involvement relating to individuals' psychological preoccupation with the work role (because it is emotionally draining), while being in the family domain. Consequently, as might have been expected, nurses experience strain-based WIF more frequently than strain-based FIW.

Results indicated that the participants *very seldom or never* perceived strain-based FIW. These results are consistent with the literature (e.g. Gutek et al., 1991) that suggests individuals experience greater WIF than FIW. Gutek et al. (1991) asserted that the higher WIF in comparison to FIW may be as a result of hours spent at work. However, another explanation for the difference in the results of WIF and FIW is that the sources of conflict operate differently for individuals (Gutek et al., 1991). This may be aligned with Van der Merwe's (1999) conflicting ideologies of nurses, namely professionalism and domesticity. Because the majority of the participants are women, it can be assumed that their role in the family domain and the expectations required to fulfil this role has been socially assigned to them (Serpe & Stryker, 2011). Therefore, the participants may report lower FIW because of their socially constructed family responsibilities.

Behaviour-based Conflict

There was a range of scores for behaviour-based conflict for work interfering with family. The range showed that the sample experienced behaviour-based conflict from very seldom to very often. The majority of the sample indicated that they seldom or sometimes experienced behaviour-based WIF and FIW. This encapsulates behavioural involvement, and to a certain extent suggests that people drawn to this profession relate to it in terms of the behaviour and personality required. Therefore, this profession and role in family is a major source of self-identity, as discussed earlier. There appears to be role compatibility between work and family of professional nurses in this context. This illustrates that nursing is a docile female role and therefore allows these individuals to minimise the tension imposed by role expectations. In so doing they maintain the stereotype of this profession. Boughn and Lentini (as cited in Letvak, 2001) stated that women are motivated to choose a career in the nursing profession because they care for others, and that this is related to their role in the family domain. Based on the results of this sample, role compatibility exists because nursing is a gendered-profession.

2.3. Social support

Researchers have found that social support has various functions in the work-family conflict phenomenon. According to Carlson and Perrewé (1999), social support can be classified as an antecedent, a moderating, an intervening, or as an independent variable. The scale used in this research measured 1) social support network, and 2) level of satisfaction with these networks (Sarason et al., 1987). The social support questionnaire allowed participants to report who they regarded as providers of social support (structural) and their satisfaction with the support provided (functional) (Kafetsios, 2007).

The functional aspect of social support in this study indicated that participants were *very satisfied* with the social support. From the structural perspective of social support, the PN/RNs perceived that family members (including extended family members) are integral in providing support. This promotes the role of families in the South African context, illustrating the interconnectedness of individuals and the family/community (Nussbaum, 2003). Support from the family for employed individuals serves as instrumental assistance by relieving home-related responsibilities (King et al., 1995). Instrumental assistance occurs when family members relieve the working individual from home-related duties and responsibilities (King et al., 1995; Lapierre & Allen, 2006). Instrumental assistance prevents time-based family interference with work because the working individual has more time available to engage with work demands (Lapierre & Allen, 2006). That is, when individuals in a family are employed, other family members organise themselves in order for individuals to perform their functions in society (The Presidency, 2012).

As stated, this scale identifies the social support network of participants. Since this sample indicated family as a main source of providing this support, one needs to look at the implications on the profession. A supportive, organisational culture has implications for turnover intentions and staffing shortages (Delobelle et al., 2011; Eby et al., 2005). The shortage (or uneven distribution) and brain-drain (Littlejohn et al., 2012; Vujicic et al., 2004) in the profession may be explained by participants not listing “supervisors” and “colleagues” (as support network from the work domain) as prominently as family.

Nonetheless, results from the second research aim highlighted the relationships between social support provided by family and the three forms of FIW. There was only one significant relationship between social support from family and FIW, namely a small negative relationship with behaviour-based FIW. Behaviour-based FIW suggests that behaviour that is effective in the family domain is not effective in the work domain (Greenhaus & Beutell, 1985). Therefore, the relationship implies that, as behaviour-based FIW increases, support from family members

decreases. This may be because of the self-reporting nature of the SSQ, in that participants do not regard the availability of family members' support as adequate in minimising the behavioural expectations in work domain.

2.4. Gender ideology

From a gender role perspective, being a 'good' mother extends beyond the traditional ideology of providing emotional support but also providing financial support to family. Therefore, this study suggests that work is not a secondary role for PN/RNs in the district. In other words, for this female dominated profession, work is a second primary role, carrying the same level of importance as being a mother and a spouse. It therefore proposes that this level of role involvement for PN/RNs results in the multiple roles competing for time. Paid work provides psychological and social benefits, such as self-esteem through financial independence and social interaction (Grzywacz & Marks, 2000; Moen & Yu, 2000). Consequently, it explains the salience of roles played by those in this profession and specifically in the reinforcement of self-identity (Thoits, 1991).

3. Construct validity of measuring instrument

Although culture is important in understanding work-family interface (Powell et al., 2009), one needs to understand where the focus of cultural values lies in understanding the phenomenon. Results from the reliability analysis of the scales used in the current study were consistent with the reliability of the original scales. That is, the constructs are transferable between various cultures. There was very little discrepancy between the reliability analysis and the original reported alphas value except for the gender role ideology scale. For example, the time-based WIF of this study had an $\alpha = 0.89$ whereas the original study conducted by Carlson et al. (2000) reported an $\alpha = 0.87$. Similarly, the SSQS in this study had an $\alpha = 0.95$ whereas the Sarason et al. (1987) study reported an $\alpha = 0.97$. The gender role ideology scale, on the other hand, had an

$\alpha = 0.71$; in comparison the original study reported an $\alpha = 0.43$. This discrepancy can be attributed to the original study utilising the scale for role interdependence of a sample that was not homogenous, with regard to the profession.

However, it is not surprising that the magnitude of constructs differs from those of the original studies' development and validation. Specifically because these scales are self-reported instruments, the way in which participants interpret these constructs is based on individual perception. As stated by Mortazavi et al. (2009, p. 258) "the way that most people perceive and understand their environment is based on their self-perceptions and self-knowledge, which are then constrained by the patterns of social interactions in a given culture". This is in line with Powell and his colleagues' (2009) argument that the cultural norms and values have an influence on the strength of the constructs of a scale.

3.1. Multi-dimensional scale

Results of this study confirm that the scale is valid and reliable. The results found that the scale is reliable and that the constructs were valid. Therefore, more attention needs to be paid to the participants' scores. Owing to the nature of self-reporting measures, the low reported work-family conflict dimensions of this study could be as a result of participants reporting a desired rather than an actual state (Somech & Drach-Zahavy, 2007).

The relatively low work-family conflict scores of this sample was contradictory to the literature, which suggested that characteristics of the nursing profession, such as workload (Carlson & Perrewé, 1999; Frone et al., 1992b); mandatory overtime (Mokoka et al., 2011); shift work (Greenhaus & Beutell, 1985; S. Williams et al., 1997); lack of social support or support relationships (Kirrane & Buckley, 2004) and gender ideologies (Somech & Drach-Zahavy, 2007)

have an influence on perceived work-family conflict. While the questionnaire analysis implied that the multi-dimensional work-family conflict is reliable and valid, there may be another underlying reason why the current study's sample did not report high work-family conflict. This could be due to the scale not being developed for this specific profession. In fact, Carlson et al. (2000) stated that their scale required additional validation across organisations and occupations to establish the scale and provide generalisability. Consequently, the scale does not adequately reflect findings from previous research.

3.2. Social support questionnaire

Although the scores on the social support questionnaire were reliable, the scores cannot be considered valid. The CFA indicated that the social support questionnaire measures more than one construct and the scale was not a good fit for the data. Consequently, the researcher argues that the constructs of the satisfaction with social support was not culturally sensitive. Possible reasons why the scores are not valid may include the word choice of the items, the period within which the questionnaire was completed, and the response sets available on the questionnaire. Additionally, Sarason et al. (1987) conducted studies to examine the psychometric properties of the SSQS; the scale has somewhat limited use with the sample, and this may be because data on which the SSQ psychometrics are based were from college student samples. The measure has also not been validated for use with an ethnically diverse sample, and as indicated in the analysis chapter, two distinct factors accounted for the variance of the scale.

However, the reliability analysis of the scale indicated that the scale was reliable. Again, closer attention needs to be paid to the scores of the sample. The participants reported to be very satisfied with the social support that they received. When discussing social support with regard to the cultural sensitivity of the scale in the present research's context it is worth focusing on

the structural facet of the scale. The structural facet of social support relates to the social support network (Kafetsios, 2007; Lopez & Cooper, 2011; Sarason et al., 1987). The support network, as mentioned above, reflected a greater occurrence of family being listed. In light of this, the support network demonstrates the role of family in the South African context, and particularly the concept of *Ubuntu*. Although there was no relationship between perceived social support (satisfaction with social support) and the dimensions of work-family conflict, the social support questionnaire was contextually relevant.

3.3. Gender ideology scale

The results from the present study indicated that two distinct factors accounted for the variance of the scale. It was assumed that the scale was measuring one construct, however, this scale revealed two underlying constructs. Although Tsai (2008) did not report on the psychometric properties of the scale, two constructs were revealed in this study. Even though the construct validity of the scale was not proven for the present study's sample, the reliability of the scale was considered acceptable.

4. The work domain: shift work, WIF and FIW

Literature states that the nursing profession (as with other healthcare professions) is characterised by shift work resulting in non-traditional work hours (Barnes-Farell et al., 2008; Letvak, 2001; Monk & Folkard, 1992). The results from this study suggest that the type of shift that the nurses work has an impact on their perception of whether work interferes with family and vice versa. That is, the nurses that reported only working day shifts were less likely to report having WIF or FIW when compared to the sample. Based on the spillover theory, it was assumed that nurses would experience higher time-based conflict. Two shifts nurses appeared to have reported greater time-based WIF and FIW than those nurses that worked daytime

shifts, however both cohorts reported lower FIW. Staines and Pleck (1983) found that night shift is associated with work-family conflict, with regard to the present study it can be assumed that working daytime shifts would result in lesser work-family conflict because, when compared to the others in the sample, daytime PNs reported consistently lower on the multi-dimensional work-family conflict scale.

5. The family domain: Children in household and work-family conflict

The number of children in the household has been found to be related to work-family conflict because they consume parents/guardian's time, energy and financial resources (Gallie & Russell, 2009; Michel et al., 2009; Premeaux et al., 2007; Voydanoff, 1988). Furthermore, Voydanoff (1988) found that the number and ages of children is associated with strain-based work-family conflict. This is consistent with the results of the study because, as the number of children in these nurses' households increased the greater their strain-based WIF. However, the results of the present study also seem to suggest that when there are more than three children in the household, the nurses' strain-based WIF decreases. In light of this, it can be concluded that the children become involved in household tasks and responsibilities and consequently decrease the amount of strain experienced by the nurses.

6. Conclusion

In this chapter, the researcher aimed to draw on literature to explain the results of the study. Firstly, the female-dominated profession with its implications for the image of the profession was discussed, followed by a discussion on the misdistribution of staff, and a report on the measuring instrument that was used in the study. Secondly, discussions about the scores of the measuring instrument were presented. Thirdly, the issue of cultural sensitivity was discussed, drawing specifically on the relatively low scores reported on the multi-dimensional work-family

conflict scale. This discussion chapter also focused on two characteristics from the work and family domain, namely, shift work and the number of children in the household, and their effects on work-family conflict of PN/RNs.

CHAPTER 6

CONCLUSION

1. Introduction

This chapter intends providing the reader with an overview of the present study. This includes summaries of the literature review, the methodology followed and analysis of the findings, and discussions.

2. Research literature

The literature chapter aimed to review work-family conflict, whilst drawing attention to the profession and context of the present study, i.e. the Cacadu District Municipality and the conceptual framework of the nursing profession in South Africa. Additionally, literature reviewed recognised the gap in this phenomenon, especially from the family domain. The literature chapter also reviewed work-family conflict from a rational and gender role viewpoint.

2.1. Theories guiding this research

The theory that guided the study's understanding is the *role conflict theory*, yet the *open systems theory* assisted in conceptualising the phenomenon. This allows for the understanding of the tension between professionalism versus domesticity.

Due to the behavioural aspect in discerning work-family conflict from a multi-dimensional stance, the researcher reviewed identity theories. This is because behaviour is socially constructed, thus requiring a review of the *role identity theory*.

3. Methodology and analysis

This section of the thesis provided conclusions based on the present empirical study. This study aimed to test the contextual sensitivity of existing scales of work-family conflict, social support and gender ideologies in the nursing profession and in the Cacadu District.

Reliability of measuring instrument in present research context

The reliability testing in this study reported that the multi-dimensional work-family scale (Carlson et al., 2000) had a Cronbach's α of between 0.79 and 0.89. According to the empirical standard of interpreting this coefficient, this scale is considered to be reliable. The social support questionnaire (Sarason et al., 1987) in this study reported an internal reliability of $\alpha = 0.95$, thus also interpreted as having excellent reliability. Lastly, the gender role ideology scale (Tsai, 2008) reported an internal reliability of $\alpha = 0.71$ in this study, which is interpreted as acceptable.

Validity of measuring instrument in present research context

In order to test the validity of the measuring instrument a factor analysis was employed, which determined the construct validity of the questionnaire. Construct validity refers to whether the questionnaire measures the theoretical construct(s) it claims to measure (Durrheim & Painter, 2006; Pretorius, 2007). The hypothesis for the first research aim was stated as follows:

H₀: The constructs of the measuring instrument is not culture specific

H₁: The constructs of the measuring instrument is culture specific

Based on the results of this analysis the null hypothesis was partially rejected, and ten constructs were identified. These constructs were: time-based WIF and FIW, strain-based WIF and FIW, behaviour-based WIF and FIW, two constructs with regard to satisfaction with social support, and two constructs for gender role ideology.

Hypothesis testing

The second research aim was to ascertain *whether there is a relationship between social support received from family and the sources of FIW*. The hypothesis was thus stated as follows:

H₀: There is no relationship between social support received from family members and the forms of FIW.

H₁: There is a relationship social support received from family members and the forms of FIW.

Because there are three forms of FIW (time-based, strain-based and behaviour-based FIW) the null hypothesis was partially rejected. The results from the analysis indicated that, for time-based and strain-based FIW the null hypothesis should be accepted. In other words, there is no relationship between social support received from family members and the time-based and strain-based FIW. Yet, for behaviour-based FIW the null hypothesis was accepted. This means that there is a relationship (small but negative) between social support received from family members and behaviour-based FIW.

The third research aim was to *determine whether there is a difference between shifts and experience of FIW and WIF*. The hypotheses were stated as follow:

H₀: The distribution of the scores on multidimensional work-family conflict scale in the different shifts of PNs is identical.

H₁: The distribution of the scores on the multidimensional work-family conflict scale in the different shifts of PNs differ from each other.

Again, because the forms of WIF and FIW include time-based, strain-based, and time-based interference the null hypothesis was partially rejected. The results suggested that for time-based WIF and FIW, strain-based FIW, behaviour-based WIF and FIW, the null hypothesis should be rejected. Hence, the distribution of the scores of these variables reported significant ($p < 0.05$) differences for daytime and two shifts nurses of the nursing sample. However, for strain-based WIF the null hypothesis was accepted, meaning that for strain-based WIF the distribution of the scores of both daytime and two shift nurses were identical.

The last research aim was to determine *whether the number of children in households results in differences in perceived work-family conflict*. The hypothesis for this aim was stated as follows:

H₀: The distribution of the scores on multidimensional work-family conflict scale in the different number of children in the household of PNs is identical.

H₁: The distribution of the scores on the multidimensional work-family conflict scale in the different number of children in the household of PNs differs from each other.

The results of this study suggested that the null hypothesis be partially accepted. The results from the Kruskal-Wallis H-test only found strain-based WIF to be significant ($H(3) = 14.25$, $p = 0.00$), therefore the null hypothesis was rejected. However, the null hypothesis was accepted as no significant results were found for time-based WIF and FIW, strain-based FIW, behaviour-based WIF and FIW.

4. Strengths and limitations

The majority of research on this topic has been conducted in western and European countries, and therefore may not be contextually relevant in the context in which this project exists. The Nursing Strategy for South Africa acknowledges that the work-life quality of nurses has deteriorated; therefore this research provides insight into the work-family interface of nurses in the Cacadu District. Consequently, the results from this study may provide the foundation for future enquiry in this field, particularly in such a gendered profession. Due to the lack of resources and working conditions in this profession, especially in rural areas such as the Eastern Cape, the study may provide preliminary evidence to understand the work-family interface in this profession and context.

Limitations do exist within this study. These relate to the sample size, research method used and the measuring instrument. Firstly, the sample size may be too small to make meaningful conclusions on the South African nursing population. Because of the hierarchical structures of the nursing profession and the healthcare institutions, the researcher was also required to approach various levels of authority for permission to access to the nursing sample. However, results may be generalised for this specific context and professional level (Cacadu District Hospitals). Secondly, only a limited number of journal articles have been published about this phenomenon in the rural areas of South Africa and the nursing profession, and thus the conceptualisation of the work-family interface needs exploring. A quantitative study (such as the present) does not provide an in-depth understanding of the interface, but rather serves as a diagnostic purpose. The conceptualisation of work-life interface needs a qualitative research approach in order for the nurses to identify the characteristics in the home and family domain that may have an impact on their time, strain and behaviour as professionals and caregivers in the family domain, similarly in the work domain. The third limitation is the measuring instrument: two of the scales (Carlson et al., 2000; Sarason et al., 1987) were developed and validated in the United States of America; one scale (Tsai, 2008) was not validated. This study

aimed to illustrate that these scales may not be sensitive to the nuances of culture and gender role expectations on work-family conflict in the present study. Additionally, questionnaire may have been perceived as long and thus deterred the nurses from participating in the research. Hence, a more succinct questionnaire needs to be developed. The fourth limitation of the study is that no pilot study was conducted. This would have assisted in ensuring the wording and the response sets were appropriate for the sample.

The researcher recommends that future researchers need to develop a measuring instrument that is specific to the context and profession in which the research is conducted. For this, a triangulation research design needs to be adopted. Such an instrument will assist managers in developing work-life strategies that are beneficial to both the individual and the organisation.

Reference list

- Adams, A., Lugsden, E., Chase, J., Arber, S., & Bond, S. (2000). Skill-Mix Changes and Work Intensification in Nursing. *Work, Employment & Society*, 14(3), 541–555.
doi:10.1177/09500170022118563
- Amoateng, A. ., Heaton, T. ., & Kalule-Sabiti, I. (2007). Living arrangements in South Africa. In *Families and households in post-apartheid South Africa: Socio-demographic perspective* (pp. 43 – 60). Cape Town: HSRC Press.
- Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A meta-analysis of work–family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology*, 16(2), 151.
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day’s work: Boundaries and micro role transitions. *Academy of Management Review*, 25(3), 472–491.
- Barling, J. (1990). *Employment, stress and family functioning*. England: John Wiley & Sons.
- Bass, B. L., Butler, A. B., Grzywacz, J. G., & Linney, K. D. (2009). Do job demands undermine parenting? A daily analysis of spillover and crossover effects. *Family Relations*, 58(2), 201–215.
- Beauregard, T. A., Ozbilgin, M., & Bell, M. P. (2009). Revisiting the social construction of family in the context of work. *Journal of Managerial Psychology*, 24(1), 46–65.
doi:10.1108/02683940910922537

References

- Bernas, K. H., & Major, D. A. (2000). Contributors to stress resistance. *Psychology of Women Quarterly*, 24(2), 170.
- Bianchi, S. M., & Milkie, M. A. (2010). Work and family research in the first decade of the 21st century. *Journal of Marriage and Family*, 72(3), 705–725.
- Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*, 79(1), 191–228.
- Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who Did, Does or Will Do It, and How Much Does It Matter? *Social Forces*, 91(1), 55–63.
- Borman, K., Quarm, D., & Gideonse, S. (1984). *Women in the workplace: effects on family*. Norwood: Ablex.
- Breier, M., Wildschut, A., & Mgqolozana, T. (2009). *Nursing in a new era: the profession and education of nurses in South Africa*. Cape Town: HSRC Press. Retrieved from <http://www.hsrcpress.ac.za/product.php?cat=8&sort=title&sort_direction=&page=4&reedownload=1&productid=2258>.
- Bruck, C. S., Allen, T. D., & Spector, P. E. (2002). The Relation between Work–Family Conflict and Job Satisfaction: A Finer-Grained Analysis. *Journal of Vocational Behavior*, 60(3), 336–353. doi:10.1006/jvbe.2001.1836
- Burleson, B., Albrecht, T., & Sarason, G. (Eds.). (1994). *Communication of social support: messages, interactions, relationships, and community*. Thousand Oaks California: SAGE Publications, Inc.

References

- Caproni, P. J. (2004). Work/Life Balance: You Can't Get There From Here. *The Journal of Applied Behavioral Science*, 40(2), 208–218. doi:10.1177/0021886304263855
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and Initial Validation of a Multidimensional Measure of Work–Family Conflict. *Journal of Vocational Behavior*, 56(2), 249–276. doi:10.1006/jvbe.1999.1713
- Carlson, D. S., & Perrewé, P. L. (1999). The Role of Social Support in the Stressor-Strain Relationship: An Examination of Work-Family Conflict. *Journal of Management*, 25(4), 513–540.
- Carlucci, M. ., & Wright, B. . (2000). Inferential statistics. In G. . Breakwell, J. . Hammond, & C. Fife-Schaw (Eds.), *Research methods in psychology* (2nd ed., p. 450). London: Sage Publications.
- Cartwright, L.K. (1978). Career satisfaction and role harmony in a sample of young women physicians. *Journal of Vocational Behaviour*, 12(2), 184 - 196.
- Cinamon, R. G., & Rich, Y. (2002). Gender differences in the importance of work and family roles: Implications for work–family conflict. *Sex Roles*, 47(11-12), 531–541.
- Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6), 747–770.
- Collier, J., Rosaldo, M. ., & Yanagisako, S. (1997). Is there a family? New anthropological views. In R. . Lancaster & M. di Leonardo (Eds.), *The gender/sexuality reader: culture, history, political economy* (pp. 71 – 81). New York: Routledge.

References

- Cook, D. A., & Beckman, T. J. (2006). Current concepts in validity and reliability for psychometric instruments: theory and application. *The American Journal of Medicine*, 166, 7 – 16.
doi:10.1016/j.amjmed.2005.10.036
- Cooper, C. L., Dewe, P. J., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Sage.
- Coovadia, H., Jewkes, R., Barron, P., Sanders, D., & McIntyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. *The Lancet*, 374(9692), 817–834. doi:10.1016/S0140-6736(09)60951-X
- Cortese, C. G., Colombo, L., & Ghislieri, C. (2010). Determinants of nurses' job satisfaction: the role of work–family conflict, job demand, emotional charge and social support. *Journal of Nursing Management*, 18(1), 35–43.
- De Klerk, M., & Mostert, K. (2010). Work–home interference: Examining socio-demographic predictors in the South African context. *SA Journal of Human Resource Management*, 8(1). doi:10.4102/sajhrm.v8i1.203
- Delobelle, P., Rawlinson, J. L., Ntuli, S., Malatsi, I., Decock, R., & Depoorter, A. M. (2011). Job satisfaction and turnover intent of primary healthcare nurses in rural South Africa: a questionnaire survey. *Journal of Advanced Nursing*, 67(2), 371–383.
- Department of Health. (2013). Strategic Plan for Nurse Education, Training and Practice 2012/13 – 2016/17. Retrieved from
http://www.sanc.co.za/archive/archive2013/linked_files/Strategic_Plan_for_Nurse_Education_Training_and_Practice.pdf

References

- De Villiers, J., & Kotze, E. (2003). Work-life balance: A study in the petroleum industry. *SA Journal of Human Resource Management*, 1(3), 15–23.
- DiStefano, C., Zhu, M., & Mindrila, D. (2009). Understanding and using factor scores: Considerations for the applied researcher. *Practical Assessment, Research & Evaluation*, 14(20), 1–11.
- Dollard, M. F., Winefield, A. ., & Winefield, H. R. (Eds.). (2003). *Occupational stress in the service professions*. London: Taylor & Francis.
- Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, 66(1), 124–197. doi:10.1016/j.jvb.2003.11.003
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500–507.
- Emslie, C., & Hunt, K. (2009). “Live to Work” or “Work to Live”? A Qualitative Study of Gender and Work–life Balance among Men and Women in Mid-life. *Gender, Work & Organization*, 16(1), 151–172.
- Farquharson, B., Allan, J., Johnston, D., Johnston, M., Choudhary, C., & Jones, M. (2012). Stress amongst nurses working in a healthcare telephone-advice service: relationship with job satisfaction, intention to leave, sickness absence, and performance. *Journal of Advanced Nursing*, 68(7), 1624–1635.
- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics: and sex and drugs and rock “n” roll* (4th ed.). Los Angeles: Sage.

References

- Fisher, G. G., Bulger, C. A., & Smith, C. S. (2009). Beyond work and family: A measure of work/nonwork interference and enhancement. *Journal of Occupational Health Psychology, 14*(4), 441–456.
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment, 7*(3), 286.
- Frone, M. R., & Rice, R. W. (1987). Work-Family Conflict: The Effect of Job and Family Involvement. *Journal of Occupational Behaviour, 8*(1), 45–53. doi:10.2307/3000337
- Frone, M. R., Russell, M., & Cooper, M. L. (1992a). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77*(1), 65–78.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992b). Prevalence of Work-Family Conflict: Are Work and Family Boundaries Asymmetrically Permeable? *Journal of Organizational Behavior, 13*(7), 723–729. doi:10.2307/2488392
- Gallie, D., & Russell, H. (2009). Work-family conflict and working conditions in Western Europe. *Social Indicators Research, 93*(3), 445–467.
- Gelfand, M. ., & Knight, A. . (2005). Cross-cultural perspective. In S. Poelmans, *Work and Family: An International Research Perspective* (pp. 401 – 414). New Jersey: Psychology Press.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Gerson, K. (2004). Understanding work and family through a gender lens. *Community, Work & Family, 7*(2), 163–178.

References

- Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work–family conflict and strain. *Journal of Vocational Behavior*, 54(2), 350–370.
- Greenhaus, J. H., Bedeian, A. G., & Mossholder, K. W. (1987). Work experiences, job performance, and feelings of personal and family well-being. *Journal of Vocational Behavior*, 31(2), 200–215. doi:10.1016/0001-8791(87)90057-1
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of Conflict Between Work and Family Roles. *Academy of Management Review*, 10(1), 76–88.
- Greenhaus, J. H., Parasuraman, S., & Collins, K. M. (2001). Career involvement and family involvement as moderators of relationships between work–family conflict and withdrawal from a profession. *Journal of Occupational Health Psychology*, 6(2), 91–100.
- Greenstein, T. N. (1996). Husbands' Participation in Domestic Labor: Interactive Effects of Wives' and Husbands' Gender Ideologies. *Journal of Marriage and Family*, 58(3), 585–595. doi:10.2307/353719
- Grzywacz, J. G., Arcury, T. A., Marín, A., Carrillo, L., Burke, B., Coates, M. L., & Quandt, S. A. (2007). Work-family conflict: Experiences and health implications among immigrant Latinos. *Journal of Applied Psychology*, 92(4), 1119.
- Grzywacz, J. G., Frone, M. R., Brewer, C. S., & Kovner, C. T. (2006). Quantifying work–family conflict among registered nurses. *Research in Nursing & Health*, 29(5), 414–426. doi:10.1002/nur.20133
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work–family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1), 111–126.

References

- Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology*, 76(4), 560–568.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Higgins, C., Duxbury, L., & Lee, C. (1994). Impact of Life-Cycle Stage and Gender on the Ability to Balance Work and Family Responsibilities. *Family Relations*, 43(2), 144–150.
doi:10.2307/585316
- Hill, E. J., Yang, C., Hawkins, A. J., & Ferris, M. (2004). A Cross-Cultural Test of the Work-Family Interface in 48 Countries. *Journal of Marriage and Family*, 66(5), 1300–1316.
doi:10.2307/3600341
- Hofstede, G. (1983). National Cultures in Four Dimensions: A Research-Based Theory of Cultural Differences among Nations. *International Studies of Management & Organization*, 13(1/2), 46–74. doi:10.2307/40396953
- Hostetler, A. J., Desrochers, S., Kopko, K., & Moen, P. (2012). Marital and Family Satisfaction as a Function of Work–Family Demands and Community Resources: Individual- and Couple-Level Analyses. *Journal of Family Issues*, 33(3), 316–340.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Kafetsios, K. (2007). Gender, social support, and well-being: Evidence from a Greek community sample. *Interpersona*, 1(2), 191 – 207.
- Katz, D., & Kahn, R. L. (1978). The social psychology of organizations.

References

- King, L. A., Mattimore, L. K., King, D. W., & Adams, G. A. (1995). Family Support Inventory for Workers: A New Measure of Perceived Social Support from Family Members. *Journal of Organizational Behavior*, 16(3), 235–258. doi:10.2307/2488511
- Kinnunen, U., Feldt, T., Mauno, S., & Rantanen, J. (2010). Interface between work and family: A longitudinal individual and crossover perspective. *Journal of Occupational and Organizational Psychology*, 83(1), 119–137.
- Kirrane, M., & Buckley, F. (2004). The influence of support relationships on work-family conflict: Differentiating emotional from instrumental support. *Equal Opportunities International*, 23(1/2), 78–96.
- Kossek, E. E., Baltes, B. B., & Matthews, R. A. (2011). How work–family research can finally have an impact in organizations. *Industrial and Organizational Psychology*, 4(3), 352–369.
- Kovner, C., Brewer, C., Wu, Y., Cheng, Y., & Suzuki, M. (2006). Factors associated with work satisfaction of registered nurses. *Journal of Nursing Scholarship*, 38(1), 71–79.
- Lambert, V. A., & Lambert, C. E. (2001). Literature review of role stress/strain on nurses: an international perspective. *Nursing & Health Sciences*, 3(3), 161–172.
- Lapierre, L. M., & Allen, T. D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: implications for work-family conflict and employee well-being. *Journal of Occupational Health Psychology*, 11(2), 169.
- Lapierre, L. M., Spector, P. E., Allen, T. D., Poelmans, S., Cooper, C. L., O'Driscoll, M. P., ... Kinnunen, U. (2008). Family-supportive organization perceptions, multiple dimensions

References

- of work–family conflict, and employee satisfaction: A test of model across five samples. *Journal of Vocational Behavior*, 73(1), 92–106.
- Littlejohn, L., Campbell, J., Collins-McNeil, J., & Khayile, T. (2012). Nursing shortage: A comparative analysis. *International Journal of Nursing*, 1(1), 22–27.
- Lopez, M. ., & Cooper, L. (2011). *Social support measures review* (pp. 1 – 115). Los Angeles: National Center for Latino Child & Family Research. Retrieved from http://www.first5la.org/files/SSMS_LopezCooper_LiteratureReviewandTable_02212011.pdf
- Madsen, S., & Hammond, S. (2013). The complexification of work-family conflict theory: A critical analysis. *Tamara Journal for Critical Organization Inquiry*, 4(2).
- Maher, J., Lindsay, J., & Bardoel, E. A. (2010). Freeing time? The “family time economies” of nurses. *Sociology*, 44(2), 269–287.
- Marks, N. F. (1998). Does it hurt to care? Caregiving, work-family conflict, and midlife well-being. *Journal of Marriage and the Family*, 951–966.
- McDonald, R. P., & Ho, M.-H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7(1), 64.
- McHugh, M. D., Kutney-Lee, A., Cimiotti, J. P., Sloane, D. M., & Aiken, L. H. (2011). Nurses’ widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs*, 30(2), 202–210.
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work–family conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32(5), 689–725.

References

- Michel, J. S., Mitchelson, J. K., Kotrba, L. M., LeBreton, J. M., & Baltes, B. B. (2009). A comparative test of work-family conflict models and critical examination of work-family linkages. *Journal of Vocational Behavior*, 74(2), 199–218.
- Minnotte, K. L., Minnotte, M. C., & Pedersen, D. E. (2013). Marital Satisfaction among Dual-Earner Couples: Gender Ideologies and Family-to-Work Conflict. *Family Relations*, 62(4), 686–698.
- Mkhize, S., & Nzimande, S. (2007). *Career choices in relation to nursing: A cross-sectional descriptive study investigating the career choices of school leavers in relation to nursing, and what influences these choices*. Durban: Health Systems Trust.
- Moen, P., & Yu, Y. (2000). Effective work/life strategies: Working couples, work conditions, gender, and life quality. *Soc. Probs.*, 47, 291.
- Mokoka, K. E., Ehlers, V. J., & Oosthuizen, M. J. (2011). Factors influencing the retention of registered nurses in the Gauteng Province of South Africa: original research. *Curationis*, 34(1), 1–9.
- Monk, T. H., & Folkard, S. (1992). *Making shiftwork tolerable*. CRC Press.
- Mortazavi, S., Pedhiwala, N., Shafiro, M., & Hammer, L. (2009). Work-family conflict related to culture and gender. *Community, Work & Family*, 12(2), 251–273.
- Mostert, K., Peeters, M., & Rost, I. (2011). Work–home interference and the relationship with job characteristics and well-being: a South African study among employees in the construction industry. *Stress and Health*, 27 (3), 238 - 251.
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology*, 81(4), 400.

References

- Nordenmark, M. (2004). Does gender ideology explain differences between countries regarding the involvement of women and of men in paid and unpaid work? *International Journal of Social Welfare*, 13(3), 233–243.
- Nussbaum, B. (2003). African culture and Ubuntu. *Perspectives*.
- O'Driscoll, M. P., Poelmans, S., Spector, P. E., Kalliath, T., Allen, T. D., Cooper, C. L., & Sanchez, J. I. (2003). Family-responsive interventions, perceived organizational and supervisor support, work-family conflict, and psychological strain. *International Journal of Stress Management*, 10(4), 326.
- Özbilgin, M. F., Beaugregard, T. A., Tatli, A., & Bell, M. P. (2011). Work–life, diversity and intersectionality: a critical review and research agenda. *International Journal of Management Reviews*, 13(2), 177–198.
- Pal, S., & Saksvik, P. Ø. (2008). Work-family conflict and psychosocial work environment stressors as predictors of job stress in a cross-cultural study. *International Journal of Stress Management*, 15(1), 22.
- Patel, C. J., Beekhan, A., Paruk, Z., & Ramgoon, S. (2008). Work-family conflict, job satisfaction and spousal support: An exploratory study of nurses' experience. *Curationis*, 31(1), 38 – 44.
- Peeters, M. C., Montgomery, A. J., Bakker, A. B., & Schaufeli, W. B. (2005). Balancing Work and Home: How Job and Home Demands Are Related to Burnout. *International Journal of Stress Management*, 12(1), 43.
- Peterson, R. A. (2000). A meta-analysis of variance accounted for and factor loadings in exploratory factor analysis. *Marketing Letters*, 11(3), 261–275.

References

- Pillay, R. (2009). Work satisfaction of professional nurses in South Africa: a comparative analysis of the public and private sectors. *Human Resources for Health*, 7(1), 15.
- Powell, G. N., Francesco, A. M., & Ling, Y. (2009). Toward culture-sensitive theories of the work–family interface. *Journal of Organizational Behavior*, 30(5), 597–616.
- Premeaux, S. F., Adkins, C. L., & Mossholder, K. W. (2007). Balancing work and family: a field study of multi-dimensional, multi-role work-family conflict. *Journal of Organizational Behavior*, 28(6), 705–727.
- Pretorius, T. B. (2007). *Inferential data analysis: Hypothesis testing and decision-making*. Reach Publishers.
- R Core Team. (2012). R: A language and environment for statistical computing. R Foundation for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.
Retrieved from <http://www.R-project.org/>
- Revelle, W. (2014). psych: Procedures for Psychological, Psychometric, and Personality Research (Version 1.4.8.11). Retrieved from <http://cran.r-project.org/web/packages/psych/index.html>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714.
- Roberts, K. A., & Wilson, R. W. (2002). ICT and the Research Process: Issues Around the Compatibility of Technology with Qualitative Data Analysis. *Forum: Qualitative Social Research*, 3(2), 83–94.
- Rothausen-Vange, T. J. (2004). Gender: Work-Family Ideologies and Roles¹. *Organization Management Journal*, 1(1), 55–60.

References

- Ryan, A. M., & Kossek, E. E. (2008). Work-life policy implementation: Breaking down or creating barriers to inclusiveness? *Human Resource Management, 47*(2), 295–310.
- Salkind, N. J. (2013). *Statistics for People Who* (Fifth Edition edition.). Thousand Oaks, CA: SAGE Publications, Inc.
- Sarason, I. G., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships, 4*(4), 497–510.
- Schwartz, S. J., Luyckx, K., & Vignoles, V. L. (Eds.). (2011). *Handbook of identity theory and research*. New York: Springer Science+Business Media.
- Seiger, C. P., & Wiese, B. S. (2009). Social support from work and family domains as an antecedent or moderator of work–family conflicts? *Journal of Vocational Behavior, 75*(1), 26–37. doi:10.1016/j.jvb.2009.03.001
- Sekaran, U. (1992). *Research methods for business: a skill building approach* (2nd ed.). New York: John Wiley.
- Simon, M., Kümmerling, A., & Hasselhorn, H.-M. (2004). Work-home conflict in the European nursing profession. *International Journal of Occupational and Environmental Health, 10*(4), 384–391.
- Simon, R. (1995). Gender, multiple roles, role meaning, and mental health. *Journal of Health and Social Behavior, 182–194*.
- Somech, A., & Drach-Zahavy, A. (2007). Strategies for coping with work-family conflict: The distinctive relationships of gender role ideology. *Journal of Occupational Health Psychology, 12*(1), 1.

References

- Spector, P. E., Allen, T. D., Poelmans, S. A., Lapierre, L. M., Cooper, C. L., MICHAEL, O., ... Beham, B. (2007). Cross-national differences in relationships of work demands, job satisfaction, and turnover intentions with work-family conflict. *Personnel Psychology*, 60(4), 805–835.
- Sullivan, O. (2000). The division of domestic labour: twenty years of change? *Sociology*, 34(3), 437–456.
- Tengelin, E., Arman, R., Wikström, E., & Dellve, L. (2011). Regulating time commitments in healthcare organizations: Managers' boundary approaches at work and in life. *Journal of Health Organization and Management*, 25(5), 578–599.
- Terre Blanche, M. J., Durrheim, K., & Painter, D. (Eds.). (2006). *Research in practice: applied methods for the social sciences* (2nd ed.). Cape Town: UCT Press.
- The Presidency. (2012, December). Green paper on families: Promoting family life and strengthening families in South Africa. The Presidency. Retrieved from <http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Profiles/PresidentJacobZuma/PressStatements/201212/Green%20Paper%20on%20Families.pdf>
- Tingey, H., & Kiger, G. (1996). Juggling multiple roles: Perceptions of working mothers. *Social Science Journal*, 33(2), 183.
- Tingey, H., Kiger, G., & Riley, P. J. (1996). Juggling multiple roles: Perceptions of working mothers. *The Social Science Journal*, 33(2), 183–191.
- Tredoux, C., & Smith, M. (2006). Evaluating research design. *Research in Practice*, 2, 160–186.
- Tsai, H.-Y. (2008). *Work-family conflict, positive spillover, and emotions among Asian American working mothers*. ProQuest.

References

- Van Aarde, A., & Mostert, K. (2008). Work-home interaction of Working females: what is the role of job and home characteristics?: empirical research. *SA Journal of Industrial Psychology, 34*(3), 1–10.
- Van Der Merwe, A. S. (1999). The power of women as nurses in South Africa. *Journal of Advanced Nursing, 30*(6), 1272–1279.
- Venaik, S., & Brewer, P. (2008). Contradictions in national culture: Hofstede vs GLOBE (Vol. 50, pp. 274–274). Presented at the 50th Annual Meeting of the Academy of International Business (AIB), Academy of International Business.
- Voydanoff, P. (1988). Work role characteristics, family structure demands, and work/family conflict. *Journal of Marriage and the Family, 74*–761.
- Vujicic, M., Zurn, P., Diallo, K., Adams, O., & Dal Poz, M. R. (2004). The role of wages in the migration of health care professionals from developing countries. *Human Resources for Health, 2*(1), 3.
- Wadsworth, L. L., & Owens, B. P. (2007). The Effects of Social Support on Work-Family Enhancement and Work-Family Conflict in the Public Sector. *Public Administration Review, 67*(1), 75–86. doi:10.2307/4624542
- Webbink, E., Smits, J., & de Jong, E. (2012). Hidden Child Labor: Determinants of Housework and Family Business Work of Children in 16 Developing Countries. *World Development, 40*(3), 631–642. doi:10.1016/j.worlddev.2011.07.005
- Webster, J., Flint, A., & Courtney, M. (2009). A new practice environment measure based on the reality and experiences of nurses working lives. *Journal of Nursing Management, 17*(1), 38–48.

References

- Whitehead, T., & Kotze, M. (2003). Career and life-balance of professional women: a South African study. *SA Journal of Human Resource Management*, 1(3), 77–84.
- Wildschut, A., & Mqolozana, T. (2008). Shortage of nurses in South Africa: relative or absolute? Case study report, forming part of the HSRC study: A multiple source identification and verification of scarce and critical skills in the South African labour market.
- Williams, K. J., & Alliger, G. M. (1994). Role stressors, mood spillover, and perceptions of work-family conflict in employed parents. *Academy of Management Journal*, 37(4), 837–868.
- Williams, S., Dale, J., Glucksman, E., & Wellesley, A. (1997). Senior house officers' work related stressors, psychological distress, and confidence in performing clinical tasks in accident and emergency: a questionnaire study. *Bmj*, 314(7082), 713.
- Wilson, N., Couper, I., De Vries, E., Reid, S., Fish, T., & Marais, B. (2009). A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural Remote Health*, 9(2), 1060.
- Winkel, D. E., & Clayton, R. W. (2010). Transitioning between work and family roles as a function of boundary flexibility and role salience. *Journal of Vocational Behavior*, 76(2), 336–343. doi:10.1016/j.jvb.2009.10.011
- Yildirim, D., & Aycan, Z. (2008). Nurses' work demands and work-family conflict: A questionnaire survey. *International Journal of Nursing Studies*, 45(9), 1366–1378.
- Ziehl, S. (2002). Black South Africans do live in nuclear family households—a response to Russell. *Society in Transition*, 33(1), 26–49.

Appendix 1

Dimension/Scale	Item	Response	Code
Biographical information	Gender	Female	0
		Male	1
	Year of birth	19xx	
	Type of vocational education/training	3 – 4 years theoretical/practical	0
		3 – 4 years theoretical	1
		Other	2
	Currently studying	No	0
		Degree	1
		Diploma	2
	Marital status	Not married	0
		Married	1
		Divorced	2
		Widowed	3
		Co-habiting	4
	Parental status	Parent	0
		Not a parent	1
	Number of children in household	(numeric value)	
	Elderly in household	Yes	0
		No	1
	Where do you work	Public hospital	0
		Private hospital	1
		Community clinic	2
	Work position/title	Professional/Registered nurse	0
		Managerial position	1
		Other (OM nursing/community service)	2
	Which of the following best describe your work hour arrangements?	Daytime shift	0
		Two shifts	1
		Night shift	2
		Other	3
	Personal income	(numeric value)	
	Household monthly income	(numeric value)	
	Item	Response	Code
I work-family conflict scale (Dimension 1: Time-based work interference)	1. My work keeps me from my family activities more than I would like 2. The time I must devote to my job keeps	Very seldom or never	1
		Rather seldom	2

Appendix

	<i>me from participating equally in household responsibilities and activities</i>	Sometimes	3
	<i>3. I have to miss family activities due to the amount of time I must spend on work responsibilities</i>	Rather often	4
		Very often or always	5
Multidimensional work-family conflict scale (Dimension 2: Time-based family interference with work)	<i>1. The time I spend on family responsibilities often interferes with my work responsibilities</i> <i>2. The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career</i> <i>3. I have to miss work activities due to the amount of time I must spend on family responsibilities</i>	Very seldom or never	1
		Rather seldom	2
		Sometimes	3
		Rather often	4
		Very often or always	5
Multidimensional work-family conflict scale (Dimension 3: Strain-based work interference with family)	<i>1. When I get home from work I am often too physically tired to participate in family activities/responsibilities</i> <i>2. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family</i> <i>3. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy</i>	Very seldom or never	1
		Rather seldom	2
		Sometimes	3
		Rather often	4
		Very often or always	5
Multidimensional work-family conflict	<i>1. Due to the stress at home, I am often</i>	Very seldom or never	1

Appendix

	<p><i>preoccupied with family matters at work</i></p> <p><i>2. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work</i></p> <p><i>3. Tension and anxiety from non-work life often extend into my job</i></p>	Rather seldom	2
		Sometimes	3
		Rather often	4
		Very often or always	5
Multidimensional work-family conflict scale (Dimension 5: behaviour-based work interference with family)	<p><i>1. The problem-solving approaches I use in my job are not effective in resolving problems at home</i></p> <p><i>2. Behaviour that is effective and necessary for me at work would be counterproductive at home</i></p> <p><i>3. The behaviours I perform that me effective at work do not help me to be a better parent or spouse</i></p>	Very seldom or never	1
		Rather seldom	2
		Sometimes	3
		Rather often	4
		Very often or always	5
Multidimensional work-family conflict scale (Dimension 6: behaviour-based family interference with work)	<p><i>1. The behaviour that work for me at home do not seem to be effective at work</i></p> <p><i>2. Behaviour that is effective and necessary for me at home would be counterproductive at work</i></p> <p><i>3. The problem-solving behaviour that work for me at home does not seem to be useful at work</i></p>	Very seldom or never	1
		Rather seldom	2
		Sometimes	3
		Rather often	4
		Very often or always	5

Appendix

	Item	Response	Code
Social Support Questionnaire	1. Whom could you really count on be dependable when you need help	Very dissatisfied	1
	1.	Fairly dissatisfied	2
	2.		
	3.		
	4.	A little dissatisfied	3
	5.		
	2. Who can you really count on to make you feel more relaxed when you feel under pressure or tense?	A little satisfied	4
	1.		
	2.	Fairly satisfied	5
	3.		
	4.		
	5.		
	3. Who accepts you totally, including your worst and best points?	Very satisfied	6
	1.		
	2.		
	3.		
	4.		
	5.		
	4. Who can you really count on to care about you, regardless of what is happening to you?		
	1.		
	2.		
	3.		
	4.		
	5.		

Appendix

	5. Whom can you count on to help you feel better when you generally down-in-the-dumps? 1. 2. 3. 4. 5.	SSQN (number of people item) Add the number listed (max. 30) and divide by 6	Range between 0 and 5
	6. Whom can you count on to console you when you are upset? 1. 2. 3. 4. 5.	SSQS (satisfaction score per item) Add the number listed (max. 36) and divide by 6 Family member Add all people described as family members	Range between 0 and 6

	Item	Response	Code
Gender Ideology Scale	1. In my opinion, working is part of being a good mother	Strongly disagree	1
		Disagree	2
	2. In my opinion, working is part of being a good wife	Neutral	3
	3. My work contributes to my family's well-being	Agree	4
	4. My work is not related to my obligations towards my family	Strongly agree	5
	5. Giving up family time for work is one form of self-sacrifice a mother makes for the well-being of her family		