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THE NATURE OF WORK-FAMILY CONFLICT AND ITS RELATIONSHIP WITH PSYCHOLOGICAL HEALTH OUTCOMES

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A dissertation submitted in partial fulfilment of the requirements for the award of the Degree of Master of Social Science in Organisational Psychology

Faculty of Humanities
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COMPULSORY DECLARATION:

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, and has been cited and referenced.

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ABSTRACT

This study examined the nature and psychological health outcomes of work-family conflict amongst South African corporate employees from two organisations in the Western Cape (N = 160). Cross-sectional data was obtained via self-report questionnaires. Exploratory factor analysis evidenced the bi-directionality of work-family conflict, work-to-family conflict (W2FC) and family-to-work conflict (F2WC). Contrary to expecting a multidimensional model in each direction, exploratory factor analyses showed that W2FC was a unidimensional construct. However in the direction F2WC, a time and strain dimensions was found supporting its multidimensionality. Using standard multiple regression analysis, W2FC explained a significant proportion of the variance in psychological strain (i.e. anxiety and depression) and burnout (exhaustion and depersonalisation). Interestingly F2WC did not explain a significant proportion of variance in any of the psychological health outcomes. These results show that pressures arising in the work domain negatively influence employees’ wellbeing. These results are discussed and management implications presented.

Keywords and Abbreviations: Family-to-work conflict (F2WC); work-to-family conflict (W2FC); psychological strain; anxiety; depression; burnout; South Africa.
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CHAPTER 1: INTRODUCTION

Background

Interest in the work-family interface has largely been spurred on by changes in the demographic composition of the workforce (Anderson, Coffey, & Byerly, 2002). These changes have been characterised by an increase in the entry of women, dual-earner couples and single parents. Demographic changes have been coupled with technological advancements and organisational structural changes as a response to increased global competition. Such phenomena are contributing to the increase in more men and women negotiating the interface between work and family. Empirical evidence has supported the relationship between increased work-family pressures and escalated levels of stress (Grant-Vallone & Donaldson, 2001). Greenhaus and Beutell (1985) conceptualised work-family conflict (WFC) and defined it as a form of inter-role conflict arising when pressures in the work role are incompatible with pressures in the family role (and vice versa).

Problem Statement

Past studies have confirmed the negative relationship between WFC and negative outcomes amongst employees. Examples of negative outcomes studied have included decreased physical health such as cardiovascular disease and headaches (Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004; Mostert, 2009) as well as psychological health symptoms such as increased depression and anxiety (Mostert, Peeters, & Rost, 2011; O’Driscoll et al., 2003). These adverse outcomes have a detrimental impact on an organisation’s competitive advantage and are witnessed in high staff absenteeism rates, increased staff turnover and reduced productivity (Love & Edwards, 2005).

Limited research has been conducted on the relationship between WFC and psychological wellbeing within the South African context. Support for research in this area is twofold. Firstly, post democratic South Africa has observed an increase in women attaining higher employment status leading to increased dual-career couples which places pressure on traditional family structures. The South African Board for People Practice (SABPP) Women’s Report 2011 indicated a 1.3% increase in female
employment from 2010 to 2011 including a 26.2% increase in women in leadership roles (Geldenhuys, 2011). This phenomenon is pertinent in the South African context because legislation such as the Employment Equity Act No. 55 of 1998 and affirmative action policies promotes a diverse and gender equal workforce (Anderson et al., 2002; Grant-Vallone & Donaldson, 2001). Secondly, recent South African research on WFC by Mostert et al. (2011) argued that the workforce of South African companies is becoming more integrated into the global economy, with the associated pressure to achieve competitive advantage. They indicated that pressures from globalisation create a stressful work environment, resulting in greater levels of WFC and consequently reduced well-being. The term wellbeing has been operationalized using various terms of which some have been used interchangeably in work-family research (e.g., positive affective and emotional wellbeing (Grant-Vallone & Donaldson, 2001; Karimi, Karimi, & Nouri, 2011), subjective wellbeing (Boyar, Maertz Jr, Mosley Jr, & Carr, 2008), psychological wellbeing (Mostert et al., 2011) and physical health (Hammer et al., 2004)). This potentially causes confusion. Although it is easier to distinguish physical wellbeing from psychological, there is less clarity on the conceptualisation of psychology wellbeing. Psychological well-being characterises dissatisfaction in the forms of depression, anxiety or even physiological tension (Hobfoll, 1989). The constructs burnout, anxiety and depression have been the most consistent and popular terms used in past literature when measuring psychological health outcomes of WFC.

Negative psychological wellbeing symptoms seem to be on the increase amongst South Africans. For example, is prevalence rates for adults for anxiety and major depression have been reported as 23% and 10% respectively (Strydor, Pretorius, & Joubert, 2012). Whilst the reported level of burnout in South Africa is even higher at 38 per cent, with the teaching and nursing occupations experiencing the highest levels (Wiese, Rothmann, & Storm, 2003). Negative psychological wellbeing symptoms have been reported to increase workplace absenteeism and decrease organisational productivity. Hence understanding the factors that influence the onset of these negative wellbeing outcomes is becoming an increasingly important issue for researchers and organisation. This study examines the relationship between WFC and psychological health outcomes amongst South African employees.
Research Question

How does work-family conflict influence psychological health outcomes amongst South African employees?

Aims of the Research

The aim of this study is to examine the influence that work-family conflict has on the wellbeing variables anxiety, depression and burnout. The findings of the study will contribute to the limited South African work-family research in this area. On a practical level the findings of this study can assist organisations in becoming aware of the pressures facing employees with multiple roles and how organisations can design interventions to reduce the onset of negative health outcomes amongst their employees associated with WFC.

Structure of the Dissertation

Chapter One presents the context of the research problem and highlights the aims of this research in answering the main research question. Chapter Two reviews the literature on work-family conflict and the selected psychological health outcomes. The method used to best answer the research question and investigate the research propositions is explained in Chapter Three. This chapter describes the research design, sample, procedure, measures and data analysis techniques used. Chapter Four presents the results based on the statistical data analysis. Lastly, Chapter Five provides a discussion of the results found in the study in relation to broader research and presents the limitations of the research, future recommendations and implications for management.
CHAPTER 2: LITERATURE REVIEW

This chapter begins with describing the literature search procedure undertaken for identifying the appropriate literature to be reviewed. This is followed by a review of the findings in past studies examining the relationship between work-family conflict (WFC) and psychological health outcomes, anxiety, depression and burnout. The chapter concludes with the propositions that will be investigated to answer the research question.

Literature Search Procedure

The negative connections between work and family have been widely researched over the last thirty years (Bedeian, Burke, & Moffett, 1988; Frone, Russell, & Cooper, 1997a; Harris, Marett, & Harris, 2011; Kasper, Meyer, & Schmidt, 2005). The scope of research examining WFC is broad and varied including antecedents, outcomes, moderating and mediating relationships with WFC variables.

A computer search was conducted on the resource databases PsycINFO, Academic Search Premier on EBSCOhost, Emerald and Google Scholar. These searches were limited to peer-reviewed articles. Past dissertations on this topic were searched for on Proquest and South African journals were searched for on Sabinet e-publications.

The concept of well-being has been loosely defined in WFC research contributing challenges in identifying appropriate studies to be reviewed (Bhagat, et al., 2010; Koekemoer & Mostert, 2006; Mostert et al., 2011; O’Driscoll, Brough, & Kalliath, 2004). Terms such as mental health, mental illness and psychiatric disorders have been used interchangeably in research (Griffin, Fuhrer, Stansfeld, & Marmot, 2003; Wang, Schmitz, Smailes, Sareen, & Patten, 2010). Similarly work-family conflict has been referred to as work-family interference (WFI), negative work-home interference, inter-role conflict and negative spillover (Grzywacz, Almeida, & McDonald, 2002; Koekemoer & Mostert, 2006; Mostert, 2009). A Boolean keyword search was thus conducted on each online resource database using multiple combinations of the following keywords: work-family conflict, work-family, psychological health outcomes, depression, anxiety, burnout, psychological strain, mental health, mental
illness, psychiatric disorders, negative work-home interference, negative spillover and well-being, employees, organisation. Other keywords including interrole conflict did not yield additional research studies as was similarly observed in the meta-analysis by Amstad, Meier, Fasel, Elfering, and Semmer (2011). This search was conducted regularly from February until November 2012. Finally, reference lists of all articles and recent reviews (e.g. Koyuncu, Burke, & Wolpin, 2012; Mostert et al., 2011) were inspected to ensure a comprehensive search for past studies relevant to the current research aims.

Theoretical Framework

Two dominant perspectives exist in gaining a comprehensive understanding of the work-family interface: (1) a negative conflicting perspective underpinned by role stress theory (Khan, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Nordenmark, 2004) and widely used to understand work-family conflict (WFC); and (2) a positive beneficial and enriching perspective underpinned by role accumulation theory (Sieber, 1974) and primarily used in understanding work-family enrichment (WFE). Research has evidenced that WFC and WFE are conceptually distinct and orthogonal constructs (Carlson, Kacmar, & Williams, 2000). Thus individuals can experience varying levels of enrichment and conflict at the same time. Given the scope of this study, only the former conflicting perspective will be adopted as research continues to evidence increasing negative consequences of WFC amongst individuals and its resulting detrimental effects on organisations.

Role-Stress theory and Scarcity Hypothesis

Role-stress theory provides a useful framework to understand how men and women manage multiple roles (Grant-Vallone & Donaldson, 2001; Nordenmark, 2004). Goode (1960) suggested that societal structures are made of numerous roles which individuals cannot satisfy all simultaneously. The argument of role-stress theory is that work and family are two roles that are of importance in most adult’s lives, making it difficult to balance the demands between these two roles. Supporting role-stress theory is the scarcity hypothesis (Geurts et al., 2005; Goode, 1960) which assumed that individuals possess limited and fixed amounts of resources (e.g. time
and energy). In light of this hypothesis, one’s attempt to manage the demands associated with multiple roles (e.g. of employee, spouse and parent) is problematic as they draw on the same scarce resources (Geurts et al., 2005). For example, as employees attend to more work demands they are likely to have less time and energy to devote to their family resulting in strain (Bolino & Turnley, 2005). When these resources are spent in one role they are then depleted and unavailable for use in other roles.

Research has consistently supported this argument when used in understanding work-family conflict (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005). For example Shimazu, Bakker, Demerouti, and Peeters (2010) found that work roles occupying high demands result in employees committing resources (such as time and effort) to their work domain, leaving them with fewer resources to devote to their family domain. Based on the view of this theory, researchers have hypothesised that role stress results in a variety of negative outcomes for the individual in both the workplace and family (Greenhaus & Beautell, 1985; Kalliath, Kalliath, & Singh, 2011). Consequently, there is a high risk of role conflicts whereby work in the home often conflicts with paid work outside the home, which in the long term, can bring about psychological illness (Nordenmark, 2004). Similarly adopting the scarcity hypothesis Grant-Vallone and Donaldson (2001) indicated that an increase in roles results in the increased likelihood of role conflict, overload and negative health consequences due to limited resources. Role conflict is defined as the “simultaneous occurrence of two (or more) sets of role pressures such that compliance with one would make more difficult compliance with the other” (Khan et al., 1964, p.19).

Work-family conflict, a form of inter-role conflict, explains the conflict an individual experiences when pressures arising from one’s work role are incompatible with pressures in one’s family role (Grant-Vallone & Donaldson, 2001).

**Work-Family Conflict**

Work-family conflict (WFC) has also been referred to as work-family interference and negative spillover (Grzywacz et al., 2002; Mostert et al., 2011). WFC remains the most studied form of inter-role conflict between the work and family domain and has been found to lead to dissatisfaction and distress. The nature of the construct follows.
Directionality

It has been evidenced that WFC is bi-directional (O'Driscoll et al., 2003) representing two conceptually and empirically distinct directions, namely work-to-family (W2FC) and family-to-work conflict (F2WC) (Mostert, 2009; O'Driscoll et al., 2003). In the W2FC direction, work pressures negatively interfere with family responsibilities. For example a parent having to work overtime would result in him/her spending less time with his/her children in the evening. In the direction family-to-work, family pressures negatively interfere with an employee fulfilling his/her work duties. An example would be that a parent staying up late tending to his/her sick child at home may be feeling tired the next day at work. Amstad et al. (2011, p.152) confirmed the bi-directionality of work-family conflict in a meta-analysis on the outcomes of WFC. In fact their results showed that the primary effect of WFC lies in the domain where the conflict originated, termed “matching hypothesis”. Thus W2FC was a stronger predictor of work-related rather than family-related outcomes. For example, if one’s work overload is considered to be responsible for interfering with quality time with the family, one might feel anger and dissatisfaction toward the organisation or supervisor. Similarly, F2WC is a stronger predictor of family-related rather than work-related outcomes such as strain experienced within the family due to family commitments interfering with work performance. Important to note, Boyar et al., (2008) argued that the extent to which the individual experiences pressure between the roles is likely to be dependent upon their subjective perception of the situation and contributing factors relating to personality, subjective well-being, history (medical) and context (support) (Lallukka et al., 2009; Rantanen, Pulkkinen, & Kinnunen, 2005).

Dimensionality

Carlson et al. (2000) validated a multidimensional model of WFC as conceptualised by Greenhaus and Beutell (1985). They empirically found three dimensions of work-family conflict experienced in each direction: time-based conflict, strain-based conflict and behaviour-based conflict (Carlson et al., 2000). Each in turn is discussed:
**Time-based conflict**

Time-based conflict is consistent with role overload (Khan et al., 1964) and therefore time spent on work or family demands make it difficult to fulfil the necessary requirements in each role (Greenhaus & Beutell, 1985; Zirwatul, Ibrahim, Ohtsuka, & Halik, 2009). For example, a person may have to work late to meet a work deadline, making them unavailable to attend to urgent matters at home. Time-based demands are related to WFC through a process of resource drain such that time or involvement required for participation in one domain limits the time or involvement available for participation in another domain (Voydanoff, 2004). Empirical evidence has shown WFC to be positively associated with the amount and frequency of overtime worked per week as a result of time demands experienced within the work-family interface (Kalliath et al., 2011; Voydanoff, 2004). These studies have shown that through an analysis of the dimensionality and structure of the subscale, time-based conflict exists and significantly loads onto a time dimension.

**Strain-based conflict**

A second form of work-family conflict involves role-produced strain whereby any work or family role characteristic that produces strain, such as role conflict and family conflict respectively, can contribute to WFC (Greenhaus & Beutell, 1985). Strain-based conflict refers to the strain associated with participating in one domain which is carried over to another domain. Strain is experienced in the receiving domain hindering role performance in that domain (Voydanoff, 2004). For example, an employee who is preoccupied with family matters may have difficulty concentrating on their work thus causing tension at work in an effort to maintain performance levels. Consistent with the concept of strain-based conflict is that of psychological spillover or negative emotional spillover from work to nonwork (Bartolome & Evans, 1980; Voydanoff, 2004). This means that work (family) conditions such as stressful events at work (i.e. coping with a new job) are associated with psychological responses, which are consequently transferred into attitudes and behaviours at home (work). As a result, strain-based demands are linked to WFC due to the process causing negative emotional arousal, energy depletion and stress which makes it difficult to maintain a happy home life (Bartolome & Evans, 1980; Voydanoff, 2004).
Behaviour-based conflict

Behaviour-based conflict occurs when behaviours expected in the one domain makes it difficult to fulfil requirements in the other domain, creating conflict (Greenhaus & Beutell, 1985; Voydanoff, 2004). For example, a person in a managerial role may be required to be driven, ambitious and analytical which may be incompatible with the behaviours desired at home such as nurturing and empathetic. Interestingly, the behaviour-based conflict dimension has been empirically found to be problematic and lacking in validity. Past studies have yielded little evidence for this type of conflict (Kalliath et al., 2011; Parasuraman, Greenhaus, & Granrose, 1992). Arguments for omitting the behaviour based dimension have been supported based on behavioural-based conflict being under-conceptualised and difficult to operationalise (Mohamed-Kohler, 2010).

For the purposes of this study the bi-directionality and multidimensionality of WFC will be included in the operationalization and measurement of the construct as it provides a more accurate depiction and comprehensive understanding of the mechanisms underlying this process. Frone, Yardley, and Markel (1997b) argued that time- and strain-based conflict are the most reliable indicators of WFC in both the W2FC and F2WC direction. Taking into consideration the argument above and that Carlson et al. (2000) advocated the need for more in-depth research on behaviour-based conflict, this study will only examine the dimensions time and strain, in each direction yielding four dimensions.

Conservation of Resources (COR) Theory

In an effort to understand the relationship between WFC and psychological health outcomes, Conservation of Resources (COR) theory (Hobfoll, 1989) has been used. The argument of this theory is that people strive to retain, protect and build resources assuming that stress will occur when valuable resources are threatened or lost (Hobfoll, 1989). The COR theory suggests that WFC leads to psychological health outcomes because resources such as time and energy are lost (i.e. depleted) in the process of attempting to balance the demands in both family and work domains. These potential or actual losses of resources lead to poor psychological health such as dissatisfaction, depression, anxiety or even physiological tension. Grandey and
Cropanzano (1999) supported the use of COR theory to explain this relationship as they found that as work and family stressors drained resources over time, the participants experienced not only poor psychological health, but similarly job and family dissatisfaction, tension and lack of physical health. Therefore, in an attempt to restore resources individuals invest in additional resources such as social support and additional time (Brand-Labuschagne, Mostert, Rothmann Jnr, & Rothmann, 2012).

**Work-Family Conflict and Psychological Health Outcomes**

A review of local and international research examining the relationship between WFC and psychological health outcomes consistently showed that WFC predicted various psychological health outcomes (Allen, Herst, Bruck, & Sutton, 2000; Amstad et al., 2011; Mostert, 2009; O’Driscoll et al., 2003). (Refer to Table 1 on page 22 for a summary of findings examining this relationship). The review highlights that psychological strain and burnout were the two most studied forms of psychological health outcomes associated with the bi-directional construct, WFC. Limited research exists specifying the dimensions of WFC and its relationship with psychological health outcomes thus this review does not consistently distinguish between the dimensions of WFC. This study aims to build on the limited literature in this area within a South African context.

**WFC and Psychological Strain**

WFC has been empirically found to be a form of role-stress leading to the experiences of psychological strain (Bhagat et al., 2010; Love & Edwards, 2005). Psychological strain occurs when organisational stress leads to ineffective cognitive functioning or disturbed affective states at an individual level (Bhagat et al., 2010). Psychological strain affects individuals regardless of their national or cultural background and has been found to adversely relate to work outcomes of job satisfaction, job involvement and organisational commitment (Bhagat et al., 2010; Love & Edwards, 2005).

Both directions of WFC have been found to negatively influence levels of psychological strain amongst both male and female employees (Mostert, 2009; O’Driscoll et al., 2003; O’Driscoll et al., 2004). Bhagat et al. (2010) and O’Driscoll et
al. (2004) conceptualised psychological strain comprising anxiety, depression and stress. For this study psychological strain will only comprise anxiety and depression and not stress as burnout, an outcome variable in this study has been found to be highly correlated with stress (Mills & Huebner, 1998). Individuals who are stressed may be more predisposed to experiencing emotional exhaustion (i.e. burnout) and vice versa (Anderson et al., 2002; Maslach & Jackson, 1981; Mills & Huebner, 1998).

**WFC and anxiety**

There is a paucity of literature on the relationship between WFC and anxiety. Anxiety is defined as a feeling of worry, nervousness, or unease about something with an uncertain outcome (Lovibond & Lovibond, 1995). Furthermore, anxiety is an intense emotion that can guide behaviour and govern self-defensive behaviours (Lewis, 2010). In a recent study by Karimi et al., (2011) they found that anxiety showed a significant and positive relationship with WFC amongst men and women from various industrial organisations in Iran. However, among the six dimensions of WFC studied by Karimi et al., only strain-based conflict in the direction W2FC had a significant impact on employees’ psychological health. Furthermore, research conducted by Frone (2000) found F2WC to be more strongly related to anxiety than the direction W2FC. O’Driscoll et al. (2003) studied a sample of managerial personnel in New Zealand and reported that WFC explained a significant proportion of the variance in anxiety. Results from a South African study investigating the relationship between work and home demands and ill health of 500 employed females from varying occupations found a similar relationship between WFC and anxiety (Mostert, 2009). Overwhelmingly the empirical findings suggest a positive predictive relationship between the two variables of interest.

**WFC and depression**

Depression is a mental condition characterised by severe feelings of hopelessness and inadequacy, typically accompanied by a lack of energy and interest in life (Lovibond & Lovibond, 1995). This mental illness causes symptoms in both the body and the brain such as painful physical as well as emotional and vegetative symptoms (Stahl, 2002). A number of cross-sectional studies have reported a significant positive and predictive relationship between WFC and depression. There is evidence that both directions (W2FC and F2WC) have an influencing role on depression (Grant-Vallone
& Donaldson, 2001; Wang et al., 2010). The results have not been consistent and some studies have shown that only W2FC predicts psychological strain.

For example Demerouti, Geurts, and Kompier (2004), found that only W2FC was significantly associated with depression. These findings seem to intensify the impact of an unfavourable working environment on depressive symptoms. Furthermore, meta-analyses conducted by Allen et al. (2000) and Amstad et al. (2011) analysed the bi-directional construct of WFC and found W2FC to be more strongly related to work-related outcomes than F2WC, consequently negatively impacting an employee’s well-being. The negative outcomes associated with W2FC in Allen et al.’s meta-analyses specifically, were work-related stress and depressive complaints. This predictive relationship has similarly been reported in a South African cross-sectional study of female employees from varying occupations (Mostert, 2009). Similarly, Koekemoer and Mostert (2006) found that W2FC was a stronger predictor than F2WC of self-rated health outcomes. Therefore work demands consistently interfere with family life more often than family demands interfere with work.

Interestingly, in a longitudinal study conducted by Frone et al. (1997a), they found a significant relationship between F2WC and depression. Conversely, no significant relationship between W2FC and depression was found. These results were contrary to most of the cross-sectional studies that examined this relationship of interest. Frone et al. noted that when measuring the impact of W2FC on depression at two points in time over a four year period may present challenges because the long time frame may allow respondents to recover from their depressive symptoms. Hence, longitudinal studies may present different findings to cross-sectional research findings.

Regarding gender differences in levels of depression, Beatty (1996) found that depression was significantly related to WFC for women with children but not for women without children. This may have been because in her sample female managers and professionals who had children were more prone to experiencing WFC than non-parents. This was due to the responsibility associated with parenting including supporting a family and spending time and energy on attending to their child’s needs when they return home from work.
Therefore, the dimensions of WFC are shown to cause depressive symptoms in both the work and family domains. Evidence of strain-based conflict experienced in the form of role ambiguity and low spouse support within the work and family domains respectively has been empirically supported to produce strain symptoms such as tension, depression and apathy (Zirwatul et al., 2009).

**WFC and Burnout**

Burnout refers to the draining of energy and resources caused by chronic job stress (Montgomery, Panagopolou, De Wildt, & Meenks, 2006). It is a psychological syndrome characterised by emotional exhaustion, depersonalisation, and decreases in professional efficacy (Montgomery et al., 2006). *Emotional exhaustion*, the key feature of burnout, involves feelings of being emotionally drained with few resources to utilise and *depersonalisation* refers to the development of cynical, negative and impersonal attitudes. Decreases in *professional efficacy* refer to a tendency to view oneself and one’s accomplishment at work negatively (Rupert, Stevanovic & Hunley, 2009). The latter dimension, *professional efficacy* has been found to be an element of engagement rather than a component of burnout (Schaufeli & Bakker, 2004). When including this dimension in measuring burnout, professional efficacy items are phrased positively compared to the dimensions of *exhaustion* and *depersonalisation* which are negatively phrased. In addition, research has shown fewer significant relationships between the professional efficacy dimension of burnout and other variables and it is perceived as the weakest burnout dimension (Schaufeli, 2003). Schaufeli and Bakker’s (2004) reconceptualised burnout to only include exhaustion and depersonalisation. More recently Shimmin (2008) validated a measure of burnout amongst a South African sample which was in accordance with the two dimensional model of the construct. Thus based on these arguments, the current study conceptualises burnout as comprising only the two dimensions, *exhaustion* and *depersonalisation*.

Koekemoer and Mostert, (2006) found a direct relationship between WFC and burnout. These findings have been supported by other researchers who found that increased levels of WFC were related to burnout. In support of the COR model, Rupert et al. (2009) found that when the demands of work and family are in conflict,
resources in these domains (i.e. work and family) are threatened and increased burnout. For example, a study amongst American psychologists who were members of the American Psychological Association found that conflict between work and family domains were associated with burnout for both men and woman (Rupert et al., 2009).

A cross-sectional study by Yavas, Babakus, and Karatepe (2008) similarly found that frontline hotel employees experiencing conflict in both directions experienced burnout. A recent South African study investigated the relationship between W2FC and burnout among low-wage non-professional construction workers (Mostert et al., 2011) and similarly found that W2FC explained a significant proportion of the variance in burnout.

For employees in the Chinese electronics industry, WFC, rather than role stress and job stress, was found to have the most impact on burnout (Yu, Lee, & Tsai, 2010). An interesting finding in their study was that the family was an important priority for Chinese employees. Yu et al. felt that companies should plan their emotional management and support programs taking into account the whole family as a unit, not just the employee as an individual experiencing burnout. This finding could relate to Spector et al.’s (2004) cross-national comparative study of work-family stressors whereby the strength and the direction in the relationship between WFC and well-being were dependent upon the national culture of the sample. That is individualistic (i.e. USA) or collectivistic (i.e. China) samples may differ in their experience of the influence of WFC on their psychological health such as their levels of burnout.

The above review of research evidenced that irrespective of gender, culture, society, or occupation, WFC has been shown to be associated with negative psychological health outcomes. The propositions will be based on the conceptual model seen in Figure 1. The model depicted in Figure 1 below based on Frone and Russell’s (1997) framework looking at the negative outcomes, specifically health-related outcomes influenced by the alarming occurrence of lack of fit between the interface of work and family roles.
Figure 1. Conceptual model of work-family conflict and psychological health outcomes
<table>
<thead>
<tr>
<th>Authors</th>
<th>Date</th>
<th>Outcomes Measured</th>
<th>Direction measured (W2FC and F2WC)</th>
<th>Summarised Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amstad et al.</td>
<td>(2011)</td>
<td>Depression</td>
<td>Yes</td>
<td>Significant A meta-analysis of WFC shows that both directions are consistently related to employee well-being i.e. depressive symptoms.</td>
</tr>
<tr>
<td>Demerouti et al.</td>
<td>(2004)</td>
<td>Depression</td>
<td>Yes</td>
<td>W2FC was significant</td>
</tr>
<tr>
<td>Frone</td>
<td>(2000)</td>
<td>Anxiety</td>
<td>Yes</td>
<td>Significant F2WC was more strongly related to anxiety than was W2FC.</td>
</tr>
<tr>
<td>Frone et al.</td>
<td>(1997a)</td>
<td>Depression</td>
<td>Yes</td>
<td>A longitudinal study only found F2WC to be significantly related to poor health symptoms and; W2FC non-significant</td>
</tr>
<tr>
<td>Grant-Vallone &amp; Donaldson</td>
<td>(2001)</td>
<td>Anxiety and depression</td>
<td>Yes</td>
<td>Significant Cross-sectional data strongly reflected WFC with lower levels of well-being, i.e. anxiety and depression.</td>
</tr>
<tr>
<td>Koekemoer &amp; Mostert</td>
<td>(2006)</td>
<td>Burnout</td>
<td>W2FC</td>
<td>Significant South African study showed W2FC to be positively related to burnout.</td>
</tr>
<tr>
<td>Montgomery et al.</td>
<td>(2006)</td>
<td>Burnout</td>
<td>W2FC</td>
<td>Significant W2FC significantly mediated the role between emotional labour and burnout.</td>
</tr>
<tr>
<td>Mostert</td>
<td>(2009)</td>
<td>Anxiety and depression</td>
<td>Yes</td>
<td>Significant Both directions of interference (W2FC and F2WC) between work and home are significantly related to anxiety and depression.</td>
</tr>
<tr>
<td>Mostert et al.</td>
<td>(2011)</td>
<td>Burnout</td>
<td>W2FC</td>
<td>Significant W2FC plays a partial mediating role in the relationship between job characteristics and burnout.</td>
</tr>
<tr>
<td>O’Driscoll et al.</td>
<td>(2003)</td>
<td>Anxiety and depression</td>
<td>Yes</td>
<td>Significant Both directions were not highly correlated with psychological strain, but were nonetheless supported.</td>
</tr>
<tr>
<td>Study</td>
<td>Year</td>
<td>Domain</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>O’Driscoll et al.</td>
<td>2004</td>
<td>Anxiety and depression</td>
<td>Significant Respondents indicated experiencing greater W2FC than F2WC. Both directions were significantly associated with psychological strain.</td>
<td></td>
</tr>
<tr>
<td>Rupert et al.</td>
<td>2009</td>
<td>Burnout</td>
<td>Significant W2FC and F2WC showed how both domains significantly influence burnout. Results were the same for both men and women.</td>
<td></td>
</tr>
<tr>
<td>Yavas et al.</td>
<td>2008</td>
<td>Burnout</td>
<td>Significant Results show employees facing conflict originating from both roles (W2FC and F2WC) experience burnout.</td>
<td></td>
</tr>
</tbody>
</table>
Research Objectives and Propositions

The primary aim of this study is to investigate the nature of WFC and its relationship with the psychological health outcomes, psychological strain (anxiety and depression) and burnout. To this end, the following propositions were developed.

Work-family Conflict:

Proposition 1a. WFC has two directions.
Proposition 1b. WFC has two dimensions in each direction (time and strain).

Psychological Strain Symptoms:

Proposition 2a. W2FC explains a significant proportion of the variance in anxiety.
Proposition 2b. F2WC explains a significant proportion of the variance in anxiety.
Proposition 2c. W2FC explains a significant proportion of the variance in depression.
Proposition 2d. F2WC explains a significant proportion of the variance in depression.

Burnout:

Proposition 3a. W2FC explains a significant proportion of the variance in burnout (exhaustion and depersonalisation).
Proposition 3b. F2WC explains a significant proportion of the variance in burnout (exhaustion and depersonalisation).
Final Notes

This chapter provides an overview of the growing concern for employees attempting to manage both their work and family commitments. The extent to which work and family roles have become intertwined has seen a prolific increase in research investigating WFC over the last two decades (Kalliath et al., 2011). The widespread experience of WFC has growing evidence linking it to reduced health and well-being (Grant-Vallone & Donaldson, 2001), poor physical and mental health (Grzywacz, 2000) and the presence of clinically significant mental health problems (Frone, 2000) (Emslie, Hunt, & Macintyre, 2004).

However, despite the increasing research investigating the health outcomes of work-family conflict, there is limited research within non-industrialised contexts (Spector et al., 2004). The limited empirical research in this field in the South African context merits attention for literature that provides a more nuanced understanding of work-family conflict and its health outcomes (Kalliath et al., 2011).
CHAPTER 3: METHOD

Research Design

This study adopted a descriptive, cross-sectional design. This design was deemed appropriate to measure the characteristics of the sample at a given time and provide a broad overview of a representative sample (Terre Blanche, Durheim, & Painter, 2006). A deductive approach allowed for a descriptive understanding concerning the existing phenomena, namely the relationship between employees’ experience of work-family conflict (WFC) and their level of psychological health outcomes (Terre Blanche et al., 2006). A survey of the sample using self-report questionnaires was used to collect quantitative data, which allowed for the data to be statistically analysed and inferences made between the variables (Terre Blanche et al., 2006).

Participants

This study was conducted within two organisations in the Western Cape. Both of the participating organisations were national corporations with one in the retail industry and the other a holding company of subsidiary companies providing carte blanche services to clients. These services include the technological, logistics, corporate and medical industries to name a few. Due to time and cost constraints this study was limited to participants in the Cape Town area of the Western Cape (n =160; response rate = 63%).
Sixty six per cent had children and more than half of the sample (64.8%) had one or more children living at home. Forty per cent of respondents’ children were under the age of six years. In addition to taking care of children at home, nearly half of the sample (48.8%) had dependents from their extended family living at home with the participant. The average age of the participants ranged from 22 to 56 years ($M = 33.69; SD = 8.17, N = 155$). Tenure ranged from one year to 20 years ($M = 4.66; SD = 4.46, N = 149$). On average respondents worked a 40-hour week ($SD = 8.16; N = 156$) with a maximum of 55 hours worked per week. In addition to working hours,
attending to child and house duties ranged from one to 78 hours per week ($M = 20.75;\ SD = 17.26; N = 120$).

It is interesting to note that more than half (63.8%) the respondents in this study were unmarried (single, divorced, or widowed) yet still had a family role that they were responsible for in terms of caring for either children, parents or other dependents living with them. These results imply a high rate of single parents trying to cope with the balance between family and work responsibilities.

**Data Collection Procedure**

Ethical clearance for this study was granted by the Commerce Faculty Ethics in Research Committee at the university where the researcher was based. Written consent allowing the study to take place within each company was granted from the Financial Director and Human Resource Manager at the two participating organisations respectively. Following these procedures, a pilot study was conducted whereby six participants were asked to provide feedback on the clarity of instructions and whether the questions in the questionnaire were coherent. Positive feedback was given from the approached participants on the interpretation questionnaire in the pilot study. A few of the items were worded differently so that the items could read better. Specifically, item statements measuring depression, including “I feel downhearted” was changed to “I feel down” and “I find it difficult to work up the initiative to do things” was changed to “I find it difficult to be proactive” so as to avoid misinterpretation of the statements. Slight changes were also made to the items measuring burnout whereby certain words were replaced with an alternative word to make the item read better. For example, the word “importance” was replaced with the word “value” in the item “I can’t really see the value of my work”.

Once the questionnaire was finalised, self-report questionnaires were sent directly to the participating organisations by the researcher. The procedure for administering the questionnaires involved informing the relevant department managers and branch managers at each company of the study in terms of the purpose and the procedures. The relevant managers were handed questionnaires by the researcher with a cover letter explaining the purpose of the study and instructions for completing the
questionnaire. The cover letter also emphasised the voluntary nature of participation as well as anonymity and confidentiality of the data that they would provide. Participants manually completed the questionnaire by marking the necessary rating anchors when responding to each item. Pre-screening questions were asked at the beginning of the questionnaire. This was to ensure that only participants who meet the criteria of being engaged in both a work and family role answered the questionnaire for the purpose of achieving the objectives of this study. Data collection took place over a period of three weeks. Completed questionnaires were sealed in an envelope and placed in a labelled box and later collected by the researcher at the premises of the organisation. Non probability convenience sampling was employed for reasons of cost and time constraints.

**Measures**

The questionnaire consisted of a total of 66 items comprising various subscales that measured the variables of interest in this study. Each subscale has been previously validated and found to be reliable in past studies.

**Work-family Conflict**

An adapted version of the Carlson et al. (2000) work-family conflict (WFC) scale was used. Items measuring the time and strain dimensions in both directions made up the 12-item subscale. The items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). An example of a time-based work-to-family conflict (W2FC) item was “The time I must devote to my job keeps me from participating equally in household responsibilities and activities.” Carlson et al. reported coefficient alphas which exceeded the conventional level of acceptance of .70 (Nunnally & Bernstein, 1994) for each component: time-based W2FC = .87; time-based family-to-work conflict (F2WC) = .79; strain-based W2FC = .85; strain-based F2WC = .87, showing that the measure has adequate internal consistency.
**Psychological Strain**

**Anxiety:** Anxiety was assessed using an adapted version of the 30-item General Health Questionnaire (GHQ) (Goldberg, 1972) which is suitable for use in general population samples as opposed to only clinical samples. As utilized by Griffin et al. (2003) the current study used the five-item shortened version of the 30-item GHQ scale. This subscale specifically measured anxiety, rather than general psychiatric disorders. An example of an item from this scale was “I feel constantly under strain”. The scale measured the frequency of anxiety symptoms experienced by a respondent, with a high score indicative of anxiety. Items were rated on a 5-point scale ranging from 1 (not at all) to 5 (all the time). Griffin et al. (2003) reported the coefficient alpha of this scale as .86.

**Depression:** The depression subscale, of the Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995) was used to measure depression. This subscale was appropriate for use in this study as the major development of the DASS scales was carried out with normal, non-clinical samples. The subscale depression consisted of 14 items. The items were rated on a 5-point Likert scale (1 = not at all and 5 = all of the time). Participants had to state the frequency of which they experienced each item over the past week. An example of an item was “I feel that life is meaningless”. Internal consistency for this scale as reported by Lovibond and Lovibond (1995) was 0.91.

**Burnout**

The Maslach Burnout Inventory – General Survey (MBI-GS) scale (Shimmin, 2008) was used to measure the construct burnout. This scale was developed from the original MBI scale (Maslach & Jackson, 1981). While the original MBI was specifically designed for human service occupations, the MBI-GS is a measure that assessed burnout among individuals in all occupations. Thus, the MBI-GS was appropriate for assessing participants in this study.

The MBI-GS originally consisted of three subscales, however as indicated in the literature review, professional efficacy was not included in this study. The current
study measured burnout according to the two subscales of *exhaustion* and *depersonalization*. The subscale *exhaustion* consisted of five items. A sample item was “I feel drained when I finish work”. The subscale *depersonalisation* also consists of five items including “I doubt the significance of my work”. Items were measured on a 5-point Likert scale (1 = never, 5 = always). High scores on *exhaustion* and *depersonalization* were indicative of burnout. This MBI-GS scale was previously validated in a South African study within the auditing industry and reported alpha coefficients higher than the accepted guideline of $\alpha > .70$ (Nunnally & Bernstein, 1994) with the internal consistencies, as measured by Cronbach’s alpha, for *exhaustion* and *depersonalization* reported as .89 and .80 respectively (Shimmin, 2008).

**Demographics**

Demographic items were included in the questionnaire to provide the researcher with an understanding of the composition of the sample. Fourteen items were chosen based on the most relevant demographics according to the main research question and past studies. Items included gender, age, home language, work status, average hours worked per week, years employed at the organisation, average hours of childcare and household duties per week, marital status, job level, whether they report to an immediate supervisor, number of dependents (other than children) living at home, number of children living at home with parents, the ages of each child and whether they have paid domestic support.

**Data Analysis**

Data preparation required cleaning, coding and entering raw data. Statistical analyses were performed with SPSS version 20 to analyse the data so that reliable and valid findings can be produced. The quantitative data collected was analysed using descriptive statistics, exploratory factor analysis, Pearson product-moment correlation analysis and standard multiple regression analysis in order to answer the main research question. The following section presents the results of the statistical data analyses.
CHAPTER 4: RESULTS

This chapter presents the results of the analyses conducted on the quantitative data collected. Exploratory factor analysis was used to determine the validity of each scale. The reliability of each scale was determined using Cronbach’s coefficient alpha. Following the reliability analysis, the descriptive statistics are presented. This is followed by Pearson product moment correlation analyses to establish significant relationships between the variables of interest and the strength of these relationships. A significance level of .01 was set ($p < 0.01$) in determining the statistical significance. Lastly, standard multiple regression analysis was used to determine the causal linkage between each psychological health outcome as the dependent variable, and W2FC and F2WC.

Exploratory Factor Analysis

Principal axis factor analysis was used to identify the latent structures of the variables. This method was chosen rather than principal component analysis as principal component analysis maximises the variance in the original set of variables and is more suited as a data reduction method (Osborne & Costello, 2009; Tipping & Bishop, 1999). Items were rotated using the direct obliman method in order to control for the degree of correlation between factors. Factors were extracted using the Kaiser criterion which considers factors common when eigen values are greater than one (Whitford & Coetsee, 2006). Factor loading greater than 0.30 were considered to be minimally acceptable, loadings of 0.40 and above were considered important and loadings above 0.50 were considered practically significant (Peterson, 2000).

Both the Kaiser-Meyer-Olkin (KMO) and Bartlett’s test of sphericity revealed criteria that supported the application of principal-axis factoring for all the subscales (Burns & Burns, 2008). A KMO index of 0.6 was used as a cut-off point and Bartlett’s significant probability was set at $p < 0.05$ (Whitford & Coetsee, 2006).

All the subscales were not able to be analysed in one factor analyses due to the study’s sample size of 160. Nunnally (1978) suggested that there should be at least 10
cases for each item in the instrument being used. Hence the factor analyses were conducted as follows:

**Burnout and Anxiety Scale**

Principal-axis extraction with direct oblimin rotation showed three significant factors. The burnout scale yielded a two factor extraction with eigen values greater than 1.0, accounting for 39.46% and 14.47% respectively and the anxiety scale yielded a one factor extraction with an eigen value greater than one accounting for 11.12% of the total variance. These results confirmed that burnout has two distinct dimensions, *exhaustion* and *depersonalization*, as indicated by the literature. Item 4 “it is getting increasingly difficult for me to get up for work in the morning” cross-loaded and was therefore removed to improve the accuracy of the burnout scale. Items 1-5 (with the exception of item 4) loaded significantly onto Factor 1 *exhaustion* (all factor loadings greater than .45). Similarly, items 6-10 loaded significantly onto Factor 2 *depersonalisation* (all factor loadings greater than .68). The anxiety scale showed that all five items loaded highly onto Factor 3 (all factor loadings greater than .50). Table 3 represents the factor loadings on three factors.

**Depression Scale**

Principal-axis extraction with direct oblimin rotation showed one significant factor with an eigenvalue greater than 1.0, accounting for 59.12% of the total variance. All fourteen items loaded significantly on the first factor. Table 4 represents the factor loadings onto one factor with the lowest factor loading being .62.
### Table 3
*Burnout and Anxiety Scale*

<table>
<thead>
<tr>
<th>Scale Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BO1 I find it hard to relax after a day’s work</td>
<td>.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO2 I feel drained when I finish work</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO3 When I finish work I feel so tired I can’t do anything else</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO5 I feel used up at the end of a work day</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO6 I have become less interested in my work</td>
<td>- .71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO7 I have become less enthusiastic about my work</td>
<td>- .68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO8 I feel increasingly less involved in the work I do</td>
<td>- .77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO9 I doubt the significance of my work</td>
<td>- .78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO10 I can’t really see the value of my work</td>
<td>- .75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANX1 I lose much sleep over worry</td>
<td>.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANX2 I feel constantly under strain</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANX3 I get worried for no good reason</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANX4 I find everything overwhelming</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANX5 I feel nervous all the time</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eigen values: 3.83 4.02 3.40  
Individual variance (percent): 39.46% 14.47% 11.12%  
Cumulative variance (percent): 39.46% 53.93% 65.05%  

Notes: N = 160. Principle axis factor analysis with direct oblimin data. BO = Burnout; ANX = Anxiety.

### Table 4
*Depression Scale*

<table>
<thead>
<tr>
<th>Scale Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEP1 I feel down</td>
<td>.65</td>
</tr>
<tr>
<td>DEP2 I feel sad</td>
<td>.62</td>
</tr>
<tr>
<td>DEP3 I can see nothing in the future to be hopeful about</td>
<td>.71</td>
</tr>
<tr>
<td>DEP4 I feel that I have nothing to look forward to</td>
<td>.85</td>
</tr>
<tr>
<td>DEP5 I feel that life is meaningless</td>
<td>.76</td>
</tr>
<tr>
<td>DEP6 I feel that life is not worthwhile</td>
<td>.77</td>
</tr>
<tr>
<td>DEP7 I feel I am pretty worthless</td>
<td>.77</td>
</tr>
<tr>
<td>DEP8 I feel that I am not worth much as a person</td>
<td>.77</td>
</tr>
<tr>
<td>DEP9 I feel that I have lost interest in just about everything</td>
<td>.83</td>
</tr>
<tr>
<td>DEP10 I am unable to become enthusiastic about anything</td>
<td>.75</td>
</tr>
<tr>
<td>DEP11 I cannot seem to experience any positive feelings at all</td>
<td>.83</td>
</tr>
<tr>
<td>DEP12 I cannot seem to get any enjoyment out of the things I do</td>
<td>.84</td>
</tr>
<tr>
<td>DEP13 I just cannot seem to get going</td>
<td>.64</td>
</tr>
<tr>
<td>DEP14 I find it difficult to be proactive</td>
<td>.69</td>
</tr>
</tbody>
</table>

**Work-Family and Family-Work Conflict Scale**

To test the propositions that work-family conflict has two directions (W2FC and F2WC) and that in each direction there are two dimensions (time and strain), principal-axis extraction with direct oblimin rotation was conducted. The 12 items loaded onto three factors with eigenvalues greater than 1.0, accounting for 41.83%, 23.46% and 11.89% of the total variance.

Two distinct directions emerged, work-to-family conflict (W2FC) and family-to-work conflict (F2WC), supporting proposition 1a. In the direction W2FC, the two dimensions (time and strain) proposed did not emerge and all six items loaded strongly onto one factor, Factor 1 (all factor loadings greater than .78). W2FC was therefore found to be unidimensional. However in the direction F2WC principal-axis factor analysis with direct oblimin rotation yielded two clear factors, time and strain, as proposed. Family-to-work conflict time (F2WC-T) items loaded highly onto Factor 2 (all factor loadings greater than .71) and family-to-work conflict strain (F2WC–S) items loaded highly on Factor 3 (all factor loadings greater than .73). Refer to Table 5 for factor loadings onto three factors.

**Reliability Analysis**

Reliability analysis was conducted with all the subscales and was assessed using Cronbach’s coefficient alpha (α), presented on the diagonal in Table 6. Alpha values greater than .70 were considered an acceptable level of reliability (Nunnally & Bernstein, 1994). The coefficient alphas for the variables in this study ranged from .80 to .94, thus all exceeding the conventional level of acceptance of .70.

The item-total correlations for each scale are provided in Appendix B, Table B-1, which shows the item-total correlations to be strong and therefore above the adequate level of .20 (Bagby, Parker, & Taylor, 1993).
Table 5

Work-to-Family and Family-to-Work Conflict Scale

<table>
<thead>
<tr>
<th>Scale Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>W2FC – T1</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2FC – T2</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2FC – T3</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2FC – S1</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2FC – S2</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2FC – S3</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2WC – T1</td>
<td></td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>F2WC – T2</td>
<td></td>
<td>.91</td>
<td></td>
</tr>
<tr>
<td>F2WC – T3</td>
<td></td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>F2WC – S1</td>
<td></td>
<td></td>
<td>-.93</td>
</tr>
<tr>
<td>F2WC – S2</td>
<td></td>
<td></td>
<td>-.89</td>
</tr>
<tr>
<td>F2WC – S3</td>
<td></td>
<td></td>
<td>-.73</td>
</tr>
<tr>
<td>Eigen values</td>
<td>4.24</td>
<td>2.64</td>
<td>3.05</td>
</tr>
<tr>
<td>Individual variance (percent)</td>
<td>41.83%</td>
<td>23.46%</td>
<td>11.89%</td>
</tr>
<tr>
<td>Cumulative variance (percent)</td>
<td>41.83%</td>
<td>65.29%</td>
<td>77.18%</td>
</tr>
</tbody>
</table>

Notes. N = 160. Principle factor analysis with oblimin data. Items are presented in Appendix A for the complete scale. W2FC-T = work-to-family conflict time; W2FC-S = work-to-family conflict strain; F2WC-T = family-to-work conflict time; F2WC-S = family-to-work conflict strain.

Table 6

Mean, Standard Deviation and Correlation Analysis for Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anxiety</td>
<td>2.13</td>
<td>.71</td>
<td>(.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Depression</td>
<td>1.45</td>
<td>.58</td>
<td></td>
<td>.495**</td>
<td>(.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. W2FC</td>
<td>2.45</td>
<td>.98</td>
<td>.234**</td>
<td>.315**</td>
<td>(.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. F2WC – T (time)</td>
<td>1.88</td>
<td>.72</td>
<td>.088</td>
<td>.044</td>
<td>.173*</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. F2WC – S (strain)</td>
<td>1.74</td>
<td>.73</td>
<td>.203*</td>
<td>.149</td>
<td>.261**</td>
<td>.439**</td>
<td>(.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Burnout (Exhaustion)</td>
<td>2.76</td>
<td>.82</td>
<td>.450**</td>
<td>.368**</td>
<td>.719**</td>
<td>.112</td>
<td>.145</td>
<td>(.84)</td>
<td></td>
</tr>
<tr>
<td>7. Burnout (Depersonalisation)</td>
<td>1.93</td>
<td>.82</td>
<td>.347**</td>
<td>.523**</td>
<td>.402**</td>
<td>.110</td>
<td>.220**</td>
<td>.442**</td>
<td>(.88)</td>
</tr>
</tbody>
</table>

Notes. N = 160. * p ≤ 0.05; ** p ≤ 0.01; Cronbach’s Alpha reflected on the diagonal, M = mean; SD = standard deviation; W2FC = work-to-family conflict; F2WC = family-to-work conflict.
Descriptive Statistics

Descriptive statistics for each of the summary composite variables are reported in Table 7 with the aim to investigate the distribution of the scores on each variable. The means \( (M) \) and standard deviations \( (SD) \) were computed. A description of the results indicated that the majority of means for the composite scales were below the midpoint of 3 on a five-point scale. This indicated that respondents experienced reduced levels of work-family conflict and their perceived psychological health variables.

The *exhaustion* dimension of burnout represented the highest mean score \( (M = 2.76; \ SD = .82) \) being the only variable closest to the scale midpoint 3, while the *depersonalisation* dimension represented a lower mean score of 1.93 \( (SD = .82) \). The depression scale represented the lowest mean score of 1.45 \( (SD = .58) \). Reported levels of W2FC were also below the mid point \( (M = 2.49; \ SD = .98) \) whereas F2WC was lower \( (M = 1.81; \ SD = .61) \). The time and strain dimensions of F2WC both represented low mean scores of 1.88 \( (SD = .72) \) and 1.74 \( (SD = .73) \) respectively.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>SE</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>160</td>
<td>0.06</td>
<td>1.09</td>
<td>1.00</td>
</tr>
<tr>
<td>Depression</td>
<td>160</td>
<td>0.05</td>
<td>2.40</td>
<td>6.77</td>
</tr>
<tr>
<td>Burnout (exhaustion)</td>
<td>160</td>
<td>0.06</td>
<td>0.35</td>
<td>-0.24</td>
</tr>
<tr>
<td>Burnout (depersonalisation)</td>
<td>160</td>
<td>0.07</td>
<td>0.65</td>
<td>-0.38</td>
</tr>
<tr>
<td>Work-to-family conflict (W2FC)</td>
<td>160</td>
<td>0.08</td>
<td>0.48</td>
<td>-0.21</td>
</tr>
<tr>
<td>Family-to-work conflict (F2WC) time</td>
<td>160</td>
<td>0.06</td>
<td>0.71</td>
<td>0.42</td>
</tr>
<tr>
<td>Family-to-work conflict (F2WC) strain</td>
<td>160</td>
<td>0.06</td>
<td>1.22</td>
<td>2.06</td>
</tr>
</tbody>
</table>

Notes. \( N = \) Number of respondents; \( SE = \) standard error of mean.
Correlation Analysis

Pearson-product moment analysis was conducted to measure for any significant associations between WFC and the wellbeing variables. Correlation coefficients between 0 and .30 are weak, between .30 and .50 are moderate, between .50 and .70 are strong, and greater than .70 very strong (Devlin, 2006). Table 6 represents the correlation matrix highlighting significant values (*p ≤ .05; **p ≤ .01).

Anxiety was weakly correlated to W2FC \( (r = .23, p < .01) \) indicating that greater anxiety is significantly related to higher levels of W2FC. Similarly, depression was moderately correlated to W2FC \( (r = .32, p < .01) \). The positive correlation between the burnout dimension exhaustion and W2FC \( (r = .72, p < .01) \) is indicated to be the strongest relationship. The second dimension of burnout, depersonalisation, was moderately related to W2FC \( (r = .40, p < .01) \).

For the direction F2WC, no significant correlations were found between F2WC-T and the three well-being variables, anxiety, depression and burnout (exhaustion and depersonalisation). In comparison, the results showed F2WC-S to be weakly correlated to anxiety \( (r = .20, p < .05) \). For burnout, only the depersonalisation dimension was weakly associated with F2WC-S \( (r = .22, p < .01) \). Depression did not show any significant relationship with F2WC.

Multiple Regression Analysis

Standard multiple regression analysis was conducted to examine the psychological health outcomes of WFC in order to test propositions 2a, 2b, 2c, 2d and propositions 3a and 3b. This analysis was used to establish the total proportion of variance in psychological strain and burnout that was explained by W2FC and F2WC (as indicated by \( R^2 \)). Hair, Babin, Money, and Samouel (2003) argued that higher \( R^2 \) values indicated greater explanatory power of the independent variable or predictors (i.e. work-family conflict). Albeit a lack of correlation found between the dependent variables and WFC in the direction family-to-work conflict (F2WC), a regression analysis was still conducted on these variables. The justification for this decision follows the argument that suppression variables increase the predictive validity of
another variable by its inclusion into a regression analysis (see Thompson & Levine, 1997). Suppression is defined by Thompson and Levine (1997, p.11) “as variables that substantially improve the prediction of a criterion through the addition of a variable which is uncorrelated or relatively little correlated with the criterion but is related to another predictor or set of predictors”. The addition of a suppressor to the regression equation is often associated with an increase in the beta weights(s) along with an increase in R-square (Thompson & Levine). This means that the bigger the weighting and the larger the increase in R-square as a result of suppression, the stronger the impact on the outcome variables therefore explaining the strength of a unique variance between the predictor and the outcome variable.

**Anxiety as an Outcome of Work-Family Conflict**

The results indicated that the predictors W2FC, F2WC-T and F2WC-S explained 5.9% of the variance ($R^2=.059$; $p < .05$; $N=160$, see Table 8a) in the dependent variable anxiety. Specifically, W2FC makes the strongest significant contribution ($\beta = .20$, $p < .05$). Interestingly, the direction F2WC did not significantly predict anxiety. The results therefore support the proposition 2a i.e. W2FC explains a significant proportion of the variance in anxiety but not proposition 2b i.e. F2WC explains a significant proportion of the variance in anxiety.

**Depression as an Outcome of Work-Family Conflict**

The results indicated that the predictors W2FC, F2WC-T and F2WC-S explained 8.9% of the variance ($R^2=.089$; $p < .01$; $N=160$, see Table 8b) in the dependent variable depression. Only W2FC was a significant predictor ($\beta = .30$, $p < .05$), indicating that higher W2FC predicted an increase in depression. The results showed no significant outcome of F2WC predicting depression, thus not supporting the proposition 2d. The results are therefore only supportive of proposition 2c which proposed that W2FC explains a significant proportion of the variance in depression.
**Burnout as an Outcome of Work-Family Conflict**

Multiple regression analyses were conducted for both the exhaustion and depersonalisation dimensions of burnout. The results indicated that the predictors W2FC, F2WC-T and F2WC-S explained 50.9% ($R^2 = .509$, $p < .05$) of the variance in exhaustion and 16% ($R^2 = .160$, $p < .05$) of the variance in depersonalisation ($N = 160$, see Table 8c and 8d). An inspection of the beta coefficients however show that W2FC was the strongest and only significant predictor of the outcome variable burnout, having a greater impact on exhaustion ($\beta = .73$, $p < .05$) than on depersonalisation ($\beta = .37$, $p < .05$). F2WC-T and F2WC-S did not predict burnout. The results therefore support the proposition 3a that that W2FC explains a significant proportion of the variance in exhaustion and depersonalisation, but not 3b.
### Table 8a
**Multiple Regression Summary for Dependent Variable: Anxiety**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>P</th>
<th>SE b</th>
<th>Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-to-family conflict (W2FC)</td>
<td>.016*</td>
<td>.058</td>
<td>.195</td>
</tr>
<tr>
<td>Family-to-work conflict time (F2WC-T)</td>
<td>.864</td>
<td>.086</td>
<td>-.015</td>
</tr>
<tr>
<td>Family-to-work conflict strain (F2WC-S)</td>
<td>.073</td>
<td>.085</td>
<td>.158</td>
</tr>
</tbody>
</table>

Notes. N= 160; *p < .05, SE b = standard error beta

### Table 8b
**Multiple Regression Summary for Dependent Variable: Depression**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>P</th>
<th>SE b</th>
<th>Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-to-family conflict (W2FC)</td>
<td>.000*</td>
<td>.046</td>
<td>.299</td>
</tr>
<tr>
<td>Family-to-work conflict time (F2WC-T)</td>
<td>.576</td>
<td>.067</td>
<td>-.047</td>
</tr>
<tr>
<td>Family-to-work conflict strain (F2WC-S)</td>
<td>.291</td>
<td>.068</td>
<td>.091</td>
</tr>
</tbody>
</table>

Notes. N= 160; *p < .05, SE b = standard error beta

### Table 8c
**Multiple Regression Summary for Dependent Variable: Burnout – Exhaustion**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>P</th>
<th>SE b</th>
<th>Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-to-family conflict (W2FC)</td>
<td>.000*</td>
<td>.048</td>
<td>.730</td>
</tr>
<tr>
<td>Family-to-work conflict time (F2WC-T)</td>
<td>.912</td>
<td>.070</td>
<td>.007</td>
</tr>
<tr>
<td>Family-to-work conflict strain (F2WC-S)</td>
<td>.445</td>
<td>.071</td>
<td>-.048</td>
</tr>
</tbody>
</table>

Notes. N= 160; *p < .05, SE b = standard error beta

### Table 8d
**Multiple Regression Summary for Dependent Variable: Burnout – Depersonalisation**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>P</th>
<th>SE b</th>
<th>Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-to-family conflict (W2FC)</td>
<td>.000*</td>
<td>.063</td>
<td>.370</td>
</tr>
<tr>
<td>Family-to-work conflict time (F2WC-T)</td>
<td>.901</td>
<td>.093</td>
<td>-.010</td>
</tr>
<tr>
<td>Family-to-work conflict strain (F2WC-S)</td>
<td>.125</td>
<td>.094</td>
<td>.128</td>
</tr>
</tbody>
</table>

Notes. N= 160; *p < .05, SE b = standard error beta
Final Notes

The results of this study confirmed that WFC is bi-directional. The direction W2FC (work-to-family conflict) was found to be unidimensional however, the direction F2WC revealed a time and a strain dimension. The descriptive results support past research that respondents generally experience higher levels of W2FC than F2WC. Standard multiple regression analysis showed that W2FC significantly predicted the psychological health outcomes psychological strain (i.e. anxiety and depression) and burnout (exhaustion and depersonalisation) in the workplace. However, the time and strain dimension of F2WC did not significantly predict any of the psychological health outcomes studied. Table 9 summarises the main findings of this study based on the analyses of the results. The findings are presented with reference to the propositions set out in the literature review.

Table 9
Summary of Findings in terms of the Research Propositions

<table>
<thead>
<tr>
<th>Proposition number</th>
<th>Description</th>
<th>Level of Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 1(a)</td>
<td>WFC has two directions</td>
<td>Supported</td>
</tr>
<tr>
<td>Proposition 1(b)</td>
<td>WFC has two dimensions in each direction (i.e. time and strain)</td>
<td>Supported only in the direction F2WC: F2WC-T, F2WC-S</td>
</tr>
<tr>
<td>Proposition 2(a)</td>
<td>W2FC explains a significant proportion of the variance in anxiety</td>
<td>Supported</td>
</tr>
<tr>
<td>Proposition 2(b)</td>
<td>F2WC explains a significant proportion of the variance in anxiety</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Proposition 2(c)</td>
<td>W2FC explains a significant proportion of the variance in depression</td>
<td>Supported</td>
</tr>
<tr>
<td>Proposition 2(d)</td>
<td>F2WC explains a significant proportion of the variance in depression</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Proposition 3(a)</td>
<td>W2FC explains a significant proportion of the variance in burnout (i.e. exhaustion and depersonalisation)</td>
<td>Supported</td>
</tr>
<tr>
<td>Proposition 3(b)</td>
<td>F2WC explains a significant proportion of the variance in burnout (i.e. exhaustion and depersonalisation)</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>
CHAPTER 5: DISCUSSION

The objective of this study was to examine the relationship between work-family conflict (WFC) and psychological health outcomes amongst South African employees. This chapter presents a discussion of the results with specific reference made to the propositions of the study. This is followed by the research limitations and suggestions for future research. Lastly, management implications are presented.

Contributions

This study aims to make a contribution on two levels: (1) theoretically, to add to the limited South African work-family literature and (2) practically, to raising awareness on how South African organisations can reduce the onset of work-family conflict and thus promote improved wellbeing amongst their employees. Although research examining the nature, antecedents and outcomes of WFC has been explored over the past two to three decades, only few recent studies have contributed to literature on the relationship between work-family and wellbeing in a South African context (Koekemoer & Mostert, 2006; Mostert, 2009; Mostert et al., 2011). This study adds value and provides insight into the nature of WFC and its association with negative psychological health outcomes. These contributions are discussed.

Bi-directionality of Work-Family Conflict

Exploratory factor analysis was used to investigate the directionality of WFC. Two distinct directions emerged, work-to-family conflict (W2FC) and family-to-work conflict (F2WC), supporting proposition 1a. This finding has been evidenced in past studies examining the nature of work-family (Carlson et al., 2000; Greenhouse & Beutell, 1985; Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004; Kalliath et al., 2011; O’ Driscoll et al., 2003). The results suggest that the relationship between work and family is such that demands in the work domain can interfere with family (W2FC) for example the pressures at work may mean that the individual does not get to spend adequate time with his/her children at home; and the demands in the family domain can interfere with the work domain (F2WC) for example an individual that
devotes a lot of time and energy on their children and family responsibilities may be left feeling drained and too tired to carry out work responsibilities.

In this study respondents mostly reported slightly below average levels of W2FC and lower levels of F2WC. This implies that even though both W2FC and F2WC levels were lower than the midpoint, respondents experienced greater pressures from their work role that spilled over into their family role causing conflict, than the other way around. A possible explanation for this is that given the current economic situation employees have to work long hours as organisations need to respond more quickly. Work structures are less flexible than family structures. At work there are deadlines to be met of which failing to do so may result in the pressures of poor performance at work. Furthermore, with the majority of the sample being single parents, the responsibility of having to provide for their children also contributes to the added pressure of managing the work-family interface. This pressure is exacerbated by the volatility of the economy and organisations resizing in efforts to remain competitive, leaving employees uncertain about their job security. As a result, conflict between the roles occur leaving individuals more prone to experiencing strain in the family domain. In addition, the low levels of F2WC may be because in South Africa, affordable and accessible domestic labour may help to alleviate the pressure arising from home demands. In this sample, the high level of additional dependents living with the respondents may act as a buffer and provide support in reducing the pressures from the family domain spilling over into the work domain. This notion of extended families is a common phenomenon in South African families. Lastly, given the personal nature and sensitivity of the constructs being measured, the low levels of WFC reported could possibly be a result of respondents answering in a socially desirable manner.

The results also show that with the rise in dual-earner couples, single parents and changing structures of the workplace to remain competitive in a global economy, individuals are becoming more pressured to perform well at work. In addition, more organisations are being exposed to structural changes such as acquisitions and mergers which increase the possibility of employees being preoccupied with the phenomena in their work role. This pressure at the workplace therefore spills over into the family domain, which leads to the experience of work-family conflict.
Dimensionality of Work-Family Conflict

When analysing the dimensionality of the WFC scale, exploratory factor analysis revealed that in the direction W2FC the expected two dimensions time and strain did not emerge. Instead a single dimension was found rendering W2FC a unidimensional construct. In the direction F2WC, exploratory factor analysis yielded two distinct dimensions, F2WC-time (F2WC-T) and F2WC-strain (F2WC-S). Proposition 1b is only partially supported as only the one direction F2WC yielded the two expected dimensions, time and strain.

The unidimensional W2FC construct that emerged implied that within the work context, respondents did not experience time- and strain-based conflict distinctly. This may be because individuals most likely do not differentiate between time pressures (such as hours worked and work schedule) and strain pressures (such as role pressure and ambiguity within their role), but rather a holistic sense of pressure originating in the work domain. This occurrence has been supported consistently in previous work-family studies (Demerouti et al., 2004; Kalliath et al., 2011). A further possible explanation as to why the construct W2FC may have been viewed as unidimensional is supported by Greenhaus and Beutell (1985). They noted that although conceptually distinct constructs (i.e. time- and strain-based conflict) extensive time involvement in a particular role can produce strain symptoms. For example, long and inflexible work hours may indirectly produce strain symptoms as well as time-based conflict.

F2WC emerged as a multidimensional construct with a time and a strain dimension. Individuals involved in multiple roles are likely to view F2WC time demands distinctly to F2WC strain demands. Therefore, time spent on family demands (such as time spent on children’s needs) makes it difficult for individuals to fulfil the requirements in their work role. Similarly, frustration relating to parent or marital dissatisfaction may cause respondents to feel exhausted. This exhaustion originating in the family domain impacts one’s work domain causing conflict.
The Relationship between Work-to-Family Conflict and Psychological Health Outcomes

The results of the standard multiple regression analysis confirmed proposition 2a, 2c, and 3a that work-to-family (W2FC) significantly predicted the psychological health outcomes psychological strain and burnout. This finding is consistent with past research (Demerouti et al., 2004; Grant-Vallone & Donaldson, 2001; Koekemoer & Mostert, 2006) that when employees experience the source of stress originating from the work domain, they experience elevated levels of anxiety, depression and burnout. The overall findings suggested that increased conflict between work and family negatively affected employees’ psychological health. These findings will be discussed with regard to each of the psychological health outcomes.

Psychological strain

Anxiety and depression were the two psychological strain variables examined in this study and were both found to be significant outcomes of W2FC. Multiple regression analysis showed that W2FC was a stronger predictor of depression than anxiety. This means that when individuals experience stress originating from the work domain negatively impacting their family life, they are likely to experience greater levels of depression than anxiety.

Anxiety as an outcome of W2FC: The results of this study are consistent with past research by O’Driscoll et al. (2003) whereby the reported levels of WFC and psychological strain referring to anxiety, were not substantially high in their sample but nonetheless significant in that anxiety is related to WFC. Despite the low variance between the two variables, this study confirms that work-family conflict is a predictor of anxiety.

The results specifically indicated that the respondents are experiencing pressures from the workplace which are inhibiting their ability to effectively fulfil role demands at home. Further to this, the stress or pressures experienced at work has produced the strain symptom, anxiety. This relationship between W2FC and anxiety suggests that the respondents may have scarce or limited resources in the form of, but not limited
to, support from supervisors and time necessary to manage and reduce the increasing levels of anxiety associated with conflict originating in the work domain. Thus, work-to-family conflict is evident in this sample such that strain from the work role has impacted the performance in the family role causing increased levels of anxiety.

This means that while W2FC only explains a small proportion of the variance in anxiety, it is nonetheless significant in predicting some levels of anxiety. This significant finding is important as conflict in the direction work-to-family can potentially have an emotional toll or strain on an individual (Karimi et al., 2011). If the levels of anxiety are not managed and coping behaviours are not put in place, anxiety can have serious consequences such as chronic worrying and decreased capacity for concentration (Lewis, 2010). Therefore, it is possible from the low levels of anxiety experienced amongst the respondents in this study that they have effective coping behaviours such as coming in early and leaving work early, necessary to deal with pressures in the work domain such as strict deadlines at work. Lastly, personality could similarly have played an important role in the low levels of anxiety experienced by respondents (Rantanen et al., 2005).

**Depression as an outcome of W2FC:** The results of this study that W2FC predicted depression is supportive of past research conducted by Beatty (1996) amongst working women with children. Individuals, who are working parents, are more prone to experiencing WFC due to the responsibility of having to work to support a family and spend time and energy on attending to their child’s needs when they return home from work. As a result of this conflict they experience negative affect and emotional symptoms resulting in anxiety and depression (Grant-Vallone & Donaldson, 2001; Karimi et al., 2011). It is likely that in this study the high rate of female participants (82%) with least one or more children dependent on them (64%) contributed to these findings.

These results may also be by the fact that dual-earner couples and single parents are experiencing more pressure from the workplace that affect their family lives, as evident in the levels of W2FC experienced (Mostert et al., 2011). W2FC is exacerbated by the volatile economy where job security and demands arising from technological advancement are challenges. Resources to effectively manage one’s
family life are thus threatened leading to one experiencing conflict between the work and home domain and subsequently feelings of hopelessness and worry. The findings on psychological strain are consistent with previous studies (Amstad et al., 2011; Demerouti et al., 2004; Frone, 2000; Grant-Vallone & Donaldson, 2001; Karimi et al., 2011; Mostert, 2009; O; Driscoll et al., 2003; O; Driscoll et al., 2004).

**Burnout**

Factor analysis identified two dimensions of burnout, namely *exhaustion* and *depersonalisation*. These results are supportive of Schaufeli and Bakker (2004) and Shimmin (2010). Standard multiple regression analysis revealed that W2FC explained greater variance in *exhaustion* than in *depersonalisation*. This is supportive of research identifying exhaustion as the key feature of burnout (Bakker, Demerouti, & Dollard, 2008; Montgoemery et al., 2006). In terms of its relationship with work-family conflict it may be understood in light of the scarcity hypothesis (Geurts et al., 2005) and the conservation of resources (COR) model (Hobfoll, 1989). This argument is that there is only a finite amount of resources such as time and energy available to an individual, for example when an employee expends most of their energy and resources at work then they have reduced or no resources to give their family, creating conflict that results in excessive stress, namely burnout.

Furthermore, the results highlight that respondents experiencing burnout, particularly exhaustion, find it hard to relax after a day’s work, or feel so drained after work that they cannot find energy to fulfil their family responsibilities adequately. This phenomenon is explicable using Conservation of Resources theory (COR) (Hobfoll, 1989) that resources such as time and energy are lost in the process of attempting to balance the demands in both family and work domains. Similarly, respondents experiencing *depersonalisation* reported cynical attitudes toward their accomplishment at work whereby they reported feeling less enthusiastic about their work, and doubting the significance of their work. Overall, this implies that respondents who reported greater W2FC experienced higher levels of burnout due to demands at work which left them feeling more drained and disinterested in their family. These findings are consistent with past research conducted in South Africa.
such that W2FC was a significant predictor of burnout, specifically, the dimension *exhaustion*.

Previous research has mainly examined the direction W2FC when investigating work-family conflict and the adverse outcomes associated with this negative conflict. Some studies had considered the direction F2WC and hence it was found important to include this direction in this under researched topic in South Africa. However the results showed that F2WC did not yield significant predictions of the studied psychological health outcomes.

**The Relationship between Family-to-Work Conflict and Psychological Health Outcomes**

The results of the standard multiple regression analysis did not support the propositions 2b, 2d and 3b. This means that both F2WC-time (F2WC-T) and F2WC-strain (F2WC-S) did not explain a significant amount of the variance in the psychological strain variables anxiety and depression, or either of the dimensions of burnout (i.e. *exhaustion* and *depersonalisation*).

**F2WC-T and F2WC-S and Psychological strain**

In this study, F2WC-S and F2WC-T did not predict anxiety or depression. These findings in contrast to those found by Amstad et al. (2011), Frone (2000), Frone et al. (1997a), Mostert (2009), O’Driscoll et al. (2003) and O’Driscoll et al. (2004) who have found F2WC to significantly predict psychological strain outcomes. However they are consistent with past research by Demerouti et al. (2004) who found W2FC to be the only significant predictor of depression. In their study no significant relationship was found between F2WC and depression. This means that the respondents in this study did not view conflict in terms of time pressures and strain in the family-to-work direction as having a unique impact in explaining the anxiety and depression associated with managing multiple role demands. These results may have been as a consequence of the respondents having resources in the family domain that buffer the potential conflicting effects of multiple role management. As such, dependent and paid domestic support may have assisted with reducing the pressures in
the family domain so that these pressures were not transferred into the work domain causing the individual to experience psychological strain. This support helps alleviate the pressures of single parents and dual-earner couples having to find the time and energy to fulfil their parenting responsibilities such as helping children with homework, cooking and putting their children to bed. The lower levels of conflict originating in the family role also may have meant that resources were not threatened or depleted for use in the workplace.

**F2WC-T and F2WC-S and Burnout**

The results of the standard multiple regression analyses however, did not confirm proposition 3b. This means that F2WC-T and F2WC-S did not explain a significant proportion of the variance in both exhaustion and depersonalisation. These findings are contrary to past research indicating that employees experiencing conflict originating from both roles (i.e. W2FC and F2WC) predicted burnout (Rupert et al., 2009; Yavas et al., 2008).

A possible reason for these results may be as a result of situational factors. For example, Lallukka et al. (2009) and Rantanen et al. (2005) suggested that support systems at home may buffer the family related demands. As nearly half (49%) of the respondents have dependents living at home with them, it is possible that strong support systems are in place at home despite the stress of many people living together. The dependents are likely to consist of extended family members, for example parents and grandparents, who may assist in household chores and assist with child care. Hence these pressures are less likely to cause conflict in the work role that would lead to feelings of burnout.

A second possible explanation for these results may be because boundaries of the family domain are easier to cross than those of the work domain (Clark, 2000). This argument is supported by the results of this study which showed that the mean score for W2FC was 2.45 which was higher than F2WC with an average of 1.81. Although both directions reported low means, just under the midpoint of the scale 3, it is clear that work demands are more often and easily transferrable to the family domain. This could be due to the changing nature of work due to globalisation, which leaves
individuals experiencing more work pressures and the need to consistently perform. In addition, working arrangements are becoming more flexible as a result of advanced technology, therefore allowing individuals to work remotely from home (Harris et al., 2011). In these instances, individuals are bringing their work home due to technology supporting the flexibility of a boundary-less office and as a result the boundaries between work and home are becoming less clear (Clark, 2000). According to Clark, boundaries will be stronger in the direction of the more powerful domain (i.e. W2FC) and weaker in the direction of the less powerful domain (i.e. F2WC). The results found in this study are therefore consistent with past research that has consistently found respondents to report higher levels of W2FC than F2WC (Demerouti et al., 2004; Allen et al., 2000; Amstad et al., 2011).

Limitations and Suggestions for Future Research

Limitations

There are some methodological limitations to this study. The first is the use of cross-sectional and self-report data. Causal inferences regarding the relations between WFC and well-being outcomes cannot be made and future research should employ a longitudinal time dimension (Frone, 2000). Cross-sectional data was used for this study given the time and cost constraints. However, cross-sectional data can provide vital initial tests of the causal hypotheses (Mostert, 2009).

Secondly, the limitation of self-report data has the possibility of recall and reporting bias which could influence the results of this study (Wang et al., 2010). As with most survey research, a common method bias in terms of social-desirability response bias may be present since all the data were self-reported. Due to the sensitive nature of the depression and burnout constructs it may have been likely that respondents may have answered in a socially desirable manner increasing the chance of erroneous and biased data (Greenhaus & Powell, 2006). Therefore, this study was interested in the subjective experiences of the employees however future research examining these relationships can include objective data from medical records which may be more reliable when collecting and analysing data. For example, in conjunction with self-rated health status, medically certified periods of absence for sick leaves longer than
three days can be used as measuring the health outcomes in the work-family context (Ala-Mursula, Vahtera, & Kivimaki, 2004).

Lastly, the use of a non-probability convenience sampling technique was employed and cautions against the generalisability of the findings should be made. Despite a reasonably high response rate of 63% indicating a good representation of the participating sample within the study, the results of this study is likely to have limiting generalisability to the entire workforce in both corporations nationally, which questions whether the conditions of external validity are met. Furthermore, this study represents a relatively small sample. An increase in sample size and probability sample is suggested in future research for increased accuracy in generalising the findings (Mostert et al., 2011).

**Future Research Suggestions**

Interest in the work-family interface is growing but is still predominantly focused on the negative orientation known as work-family conflict (WFC). Research that is equally important in gaining a comprehensive understanding of the work-family interface is including the positive experiences of multiple role occupation. Work-family enrichment (WFE) is one such construct that can be included in future work-family research together with WFC to contribute toward the theoretical research and practice. This is particularly valuable when examining well-being outcomes as positive work-family experiences can offset the dissatisfaction and distress found as a result of WFC (Hammer et al., 2005; Koekemoer & Mostert, 2006).

Future research should examine the role of personality in moderating WFC. Specifically, the moderating role of each of the Big Five personality dimensions between WFC and well-being should be examined (Rantanen et al., 2005) to increase the understanding of personality types that are more susceptible to health-related problems (Mostert, 2009). For example, individuals whose personality displays traits of neuroticism are more predisposed to experiencing psychological health outcomes such as depression or burnout when experiencing conflict between two roles than those who are more outgoing and extroverted in their personality.
Furthermore, future research could examine the effects of moderator variables on the relationship between WFC and psychological health outcomes. Given the South African context moderating variables such as socio economic status (Lidwall, Marklund, & Vos, 2010), paid domestic support (Spector et al., 2004) and gender (O’Driscoll et al., 2004) may be influential in the relationship.

Another avenue that future research could follow would be to examine the antecedents of WFC in South Africa (Frone, 2000). This study has shown that WFC predicts negative psychological health outcomes. It may be beneficial to research the antecedents that lead to WFC in order to reduce levels of WFC experienced by employees prior to it leading to the negative health outcomes. Extensive research has been conducted internationally on antecedents of WFC however limited research has been conducted in a South African context.

**Practical Implications**

Empirical evidence in the current and previous studies indicates strong support for conflict originating in the work environment (i.e. W2FC). Thus, the findings from this study are useful for the purpose of raising awareness amongst managers and human resource practitioners in organisations on the negative effects of multiple role involvement. Organisations can use these findings as evidence to communicate the need to design interventions, policies and support strategies aimed at reducing the negative impact of WFC on an employee’s health and consequently organisational effectiveness.

These findings should provide a business case for organisations to foster a family-friendly work environment. Organisations could consider implementing both preventative and therapeutic interventions for employees experiencing negative psychological health systems resulting from WFC. An example of a recognised intervention is Employee Assistant Programs (EAPs). EAPs can include services that assist employees in managing the interrelationship between their work and family demands (Hammer et al., 2005). The potential benefits of EAPs for the employees experiencing stress from WFC include improved mental health, increased productivity and enhanced job and life/family satisfaction; and for the organisation, they
potentially include a reduction in absenteeism and reduced turnover (Highly & Cooper, 1994). Employees experiencing adverse outcomes as a result of demands in the workplace, negatively interfere with their family role, which could similarly have an impact on the family members at home. Taking this into account, organisations could further show their support to employees by investing in their family’s well-being too. This suggestion has been recommended by Yu et al. (2010) who argued that companies should include the family and not only the employee as an individual experiencing indicators of psychological health when planning support programs. Family support-policies and interventions not only have the potential to improve employee well-being and organisational productivity but also enhance the organisation’s image as family-friendly. This attribute adds to the strength of an organisation’s employee value proposition and aids the attraction and retention a committed workforce. Hammer et al. (2005) supported this argument by acknowledging the potential positive effects that family-friendly practices have on employees better managing their multiple role demands. These positive effects include increased work-family enrichment and consequently reduced negative psychological health symptoms, thereby having a positive overall effect on the organisation’s productivity levels (Hammer et al., 2005). However, initiatives to promote family-friendly work environments are more likely to succeed if employees’ perceptions regarding the family-friendly climate at work are positive. This involves the active participation and interest from management (Amstad et al., 2011). Management should actively support these policies in the form of time and information (e.g. advice and suggestions that may enable the employee to respond to a demanding situation) as well as appraisal support (e.g. feedback and affirmation) (Kalliaith et al., 2011). This active commitment from management is indicative of a culture of an organisation that promotes the value of a healthy work-family interrelationship, without any detrimental career consequences for those who utilise them.
Conclusion

The work-family conflict (WFC) perspective is based on the scarcity hypothesis and role stress theory, and focuses on the adverse consequences of the interaction between work and family.

Although not all of the propositions were supported, the findings of this study suggest that WFC is a complex construct. It is bidirectional in nature and displays multidimensionality in the form of time- and strain-based conflict in the direction family-to-work conflict. The direction work-to-family conflict however, did not display the expected dimensions time and strain, rather this type of conflict was found to be unidimensional. Work-to-family conflict resulted in employees experiencing escalated levels of anxiety, depression and burnout. Alternatively, both the time- and strain-based conflict in the direction family-to-work did not predict anxiety, depression and burnout.

Work-family conflict is an important aspect of the relationship between work and family. These findings therefore highlight the need to further investigate and understand WFC in a changing South African workforce. Due to changes rapidly taking place in South Africa in the form of changes within societal structure, the economy and the work environment, including the increasing number of dual-earner couples and single parents, interest in the topic of WFC and the associated negative outcomes is requiring greater attention (Amstad et al., 2011).

The findings of this study suggest that further empirical studies are needed to investigate and explore options to reduce the negative effects that WFC has on employees’ health. Similarly, on a more practical level the findings highlight the need for organisations to be more proactive and conscious in reducing pressures at work. Organisations should focus on fostering family friendly workplace cultures that reduce the onset of WFC in order to prevent its associated negative outcomes. Organisations therefore need to look at providing attainable resources in the form of support, time, clarity of roles and effective work/family programs that will help employees and their family reduce the adverse effects of WFC. One way of achieving this is that companies initiate an organisation-change approach that will promote a
culture of greater work-family balance and quality in life (Greenhaus, Collins, & Sjaw, 2003). Lastly, despite the limitations of the present study based on a cross-sectional design, the results extend the limited research conducted in the South African context on the nature and health indicators associated with WFC.
References


APPENDIX A: Work-family Conflict Measure (Carlson et al., 2000)

Work-Family Conflict

Time-based work interference with family
1. My work keeps from my family activities more than I would like.
2. The time I must devote to my job keeps me from participating in household responsibilities and activities.
3. I have to miss family activities due to the amount of time I must spend on work responsibilities.

Strain-based work interference with family
1. When I get home from work I am often too frazzled to participate in family activities/ responsibilities.
2. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.
3. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.

Family-Work Conflict

Time-based family interference with work
1. The time I spend on family responsibilities often interferes with my work responsibilities.
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.
3. I have to miss work activities due to the amount of time I must spend on family responsibilities.

Strain-based family interference with work
1. Due to stress at home, I am often preoccupied with family matters at work.
2. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.
3. Tension and anxiety from my family life often weakens my ability to do my job.
## APPENDIX B

### Table B-1
*Item-Total Statistics for Summary Scale Items*

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