

**HOME CHARACTERISTICS, NONWORK-WORK  
INTERFERENCE AND WELL-BEING OF DUAL EARNER  
PARENTS**

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## COMMENTS

The reader is reminded of the following:

- The editorial style as well as the sources referred to in this mini-dissertation followed the format prescribed by the Publication Manual (5<sup>th</sup> edition) of the American Psychological Association (APA). This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Potchefstroom) that all scientific documents must use the APA style as from January 1999.
- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the South African Journal of Industrial Psychology (which largely agrees with the APA style) is used, but the APA guidelines were followed in constructing tables.

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## **DECLARATION**

I, Jolene Nel, hereby declare that “Home characteristics, nonwork-work interference and well-being of dual earner parents” is my own work and that the views and opinions expressed in this work are those of the author and relevant literature references as shown in the references.

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

**JOLENE NEL**

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## ABSTRACT

### **Title:**

Home characteristics, nonwork-work interference and well-being of dual earner parents.

### **Key terms:**

Emotional home demands, cognitive home demands, home pressure, development possibilities, autonomy, social support, nonwork-work interference, spouse-work interference, parent-work interference, religion/spiritual-work interference, domestic-work interference, health, exhaustion, cognitive weariness, life satisfaction, dual earner parents

Dual earner parents have become the norm in today's workplace (Weigel, Weigel, Berger, Cook, & Delcampo, 1995). Dual earner parents face many challenging roles that they have to try to balance; these include being a parent, spouse, employee, being involved in religious practices and juggling domestic responsibilities. According to Duxbury and Higgins (1991), it is very difficult for such parents to balance their various roles and multiple demands. All these challenging demands (home characteristics) can cause nonwork-interference which can, in turn, lead to well-being problems (Magnus & Viswesvaran, 2005).

The general objective of this study is to investigate the home characteristics, nonwork-work interference and well-being of a sample of dual earner parents. A convenience sample of dual earner parents ( $N=207$ ) was taken in the Vaal Triangle area in Gauteng. The following scales was used within this study: the Home Demands Scale (Peeters et al., 2005), Home Resources Scale (Demerouti et al., 2010); the Work-nonwork Interference Scale (Koekemoer, Mostert, & Rothmann, 2010); the General Health Questionnaire (GHQ) (Goldberg, & Williams, 1988); and the OLBI (Oldenburg Burnout Inventory) Scale measuring exhaustion, Cognitive weariness (Van Horn et al., 2004); and life satisfaction (Diener et al., 1985).

Descriptive statistics, Cronbach alpha coefficients, product moment correlations and multiple regression analyses were used to analyse the data. The results indicated that emotional home demands and lack of autonomy significantly predict physical ill health; emotional home demands and spouse-work interference significantly predict anxiety; and emotional home demands significantly predict depression. Gender, home pressure, developmental possibilities and parent-work interference were, in turn, significant predictors of exhaustion.

Recommendations were made for future research and also, on a more practical level, for dual earner parents. One of the recommendations is that one needs to investigate the possible cross-over and spillover effects of work-nonwork interference between wives and husbands. Another is to investigate the positive side of work-nonwork interference.

# OPSOMMING

## **Titel:**

Huis-karaktereienskappe, nuwerk-werk-inmenging, en welsyn van gesamentlike inkomste ouers

## **Sleutelwoorde:**

Emosionele huislike eise, kognitiewe huislike eise, huislike druk, ontwikkelingsmoontlikhede, selfbestuur, sosiale ondersteuning, nuwerk-werk-inmenging, ouer-werk-inmenging, eggenoot-werk-inmenging, godsdiens/geestelike-werk-inmenging, huishoudings-werk-inmenging, gesondheid, uitputting, kognitiewe afmatting, lewenstevredenheid gesamentlike inkomste ouers.

Volgens Weigel, Weigel, Berger, Cook, en DelCampo (1995) het gesamentlike inkomste ouers die norm geword. Hierdie ouers staan 'n hele aantal uiters uitdagende rolle in die oë en verder moet hulle poeg om 'n balans te vind ten opsigte van al hierdie rolle – soos byvoorbeeld dié van ouer, eggenoot, werknemer, godsdiensbehoefening en huishoudelike werksaamhede. Dit raak toenemend moeilik vir sulke ouers om al hierdie verskillende rolle en eise te balanseer (Duxbury & Higgins, 1991). Al hierdie uitdagende eise (huis-karaktereienskappe) kan nuwerk-werk-inmenging veroorsaak, wat weer op sy beurt welstandsprobleme tot gevolg kan hê (Magnus & Viswesvaran, 2005).

Die algemene doelstelling van hierdie studie was om die huis-karaktereienskappe, nuwerk-werk-inmenging en welsyn van gesamentlik inkomste ouers te ondersoek. 'n Geskiktheidsteekproef (N=207) is geneem uit die Vaaldriehoek-area in Gauteng. Die volgende skale is gebruik in hierdie studie: huis-eiseskaal van Peeters et al. (2005), die huishulpbronnenskaal van Demerouti et al. (2010); die werk-nuwerk-inmengingskaal van Koekemoer, Mostert en Rothmann (2010); die algemene gesondheidsvraelys van Goldberg en Williams (1988); uitputting, kognitiewe afmatting soos voorgedra deur van Van Horn et al. (2004); en lewenstevredenheid (Diener et al., 1985). Laasgenoemde is deur middel van die OLBI-skaal gemeet (Demerouti & Bakker, 2007).

Beskrywende statistiek, Cronbach-alfakoëffisiënte, produkmomentkorrelasies en meervoudige regressie-analises is onderneem tydens data-analise. Die resultate het getoon dat emosionele huis-eise en 'n gebrek aan outonomieit kan aanleiding gee tot fisiese swak gesondheid. Emosionele huis-eise en eggenoot-werk-inmenging is betekenisvolle voorspellers van angs. Emosionele huis-eise kan ook op sy beurt depressie veroorsaak. Geslag, huisdruk, ontwikkelingsmoontlikhede en ouer-werk-inmenging kan op hul beurt lei na uitputting.

Aanbevelings is gemaak ten opsigte van moontlike toekomstige navorsing asook, op 'n meer praktiese vlak, vir gesamentlike-inkomste-ouers. Een van die aanbevelings is om moontlike oorkruisings- en oorspoelingseffekte ten opsigte van getroude mans en hul vrouens te ondersoek. 'n Ander aanbeveling is om die positiewe kant van werk-niewerk-inmenging onder oë te neem.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 PROBLEM STATEMENT**

Labour force demographics, nonwork roles and the interaction between family and work are currently undergoing a series of profound changes (Hammer, Cullen, Neal, Sinclear, & Shafiro, 2005). These changes entail, among others, a growing percentage of families supported by two incomes (Hammer, Colton, Caubet, & Brockwood, 2002), resulting in an increase in the number of dual earner couples (Hammer et al., 2005). One reason for this state of affairs might be found in the changing economical realities of the current era. Today, both parties in marriages, especially when children are present, need to work in order to take care of their children and themselves comfortably, and often simply to stay afloat financially (Naidoo & Jano, 2002). In the past, not many women participated in the world of work. On the one hand, this was because society was not completely in favour of women working, and different feelings and perceptions also existed regarding women working together with men (Reeves, 2008; Wolf, 2006). However, the current economic crisis together with rapid technological changes have made it increasingly necessary for women to engage in work (Jenkins, Repetti, & Crouter, 2000). As the number of women partaking in the work force continues to increase, the number of dual earner couples also grows (Hammer, Allen, & Gripsy, 1997). In 2003, Bond, Thompson, Galinsky, and Prottas (2003) have noted that by 2003, 78% of married employees have been members of dual earner couples, which means that dual earner couples have become the norm rather than the exception (Bond et al., 2003; Weigel, Weigel, Berger, Cook, & DelCampo, 1995).

In light of the growing number of dual earner couples, the challenges that employees have to deal with in terms of meeting demands in the work and the nonwork (parent and spouse) domains, have become plentiful and ever more difficult (Duxbury & Higgins, 1991). A survey by Galinsky and Hughes (1987) has indicated more than half of parents in dual earner families experience high work-nonwork conflict. This conflict may be the result of the various demands related to the different roles that employees face (such as parental and spouse roles).

According to Parasuraman, Greenhaus, and Granrose, (1992), employees from dual earner families, especially parents, attempt to strike a balance between the demands of two careers and roles outside work. This situation tends to place a premium on time, which is often a rare and treasured resource. Family demands include the time spent, the level of commitment to, and the responsibilities associated with satisfying family-related obligations (such as the tasks of child-care and housekeeping) (Choi, 2008).

This situation is aggravated as women experience further pressure as a result of the range of additional responsibilities that women have to contend with, such as acting simultaneously as mothers, wives, members of extended families and working women (Rayyan & Kullik, 2006). This is also true of working men, who also participate in many roles outside work (being husbands, fathers, and members of extended families). As a result, in dual earner families, the roles that the couple plays tend to increase, particularly because families have to deal with demands from work and child-care simultaneously, while at the same time a shift towards more serious parenting is required (Fields, 2004; Moen & Roehling, 2005). According to Greenhaus and Beutell (1985) and Aryee, (1992), parenting essentially makes additional new demands on the time and energy of employees. Added to the demands from one's parenting role, even further additional demands may arise in the family context in terms of one's spousal roles (Hammer et al., 2005; Holahan & Gilbert, 1979). Aryee (1992) notes, for example, that spouses who work long hours are not always physically available to help with domestic responsibilities at home, and this may place further strain on the marital relationship. Another pressing demand, is domestic responsibilities that employees face combined with the paid work due to changing gender roles (Stevens, Minnotte, Mannon, & Kiger, 2007).

Some of the more general work and family demands found in the literature include the number of hours worked (Konrad, 2003; Spector, et al., 2007; Voydanoff, 2005), time pressure, workload pressure (Voydanoff, 2005), dependents at home, work schedule, pressure (Konrad, 2003), role conflict, role ambiguity, role overload (Carlson & Kacmar, 2000), stress from work (Demerouti, Tarris, & Bakker, 2007), marital status (Byron, 2005; Clarke, Koch, & Hill, 2004; Konrad, 2003), number of children at home (Artazcoz, et al., 2004; Keene & Reynolds, 2005) and family work hours (Byron, 2005). Additionally, according to Bedeian, Burke, and Moffet (1988), the presence or absence of children as well as the age of children are significant determinants of parental demands. Parenting unquestionably brings forth new

demands and responsibilities into a marriage. Also, the prevalence of adopting equal values in spousal relationships means that husbands and wives experience conflicts on issues of division of housework and family related decisions (Chang, 1999).

In addition to strenuous demands, family resources are frequently counted upon by parents in order to ease clashing work and nonwork roles (Wallace, 1997). Family resources refer to those household contributions that may reduce demands, facilitate performance, or generate resources in one's work and/or nonwork roles (Voydanoff, 2004). These resources can also include a spouse's contributions to household and childcare responsibilities (Wallace, 1997) or paid domestic help (De Ruijter & Van der Lippe, 2007; Spector et al., 2004). Economic resources constitute a further resource in this regard, according to Van Horn, Bellis, and Snyder (2001) and Lleras (2008). This is because economic resources not only enable parents to meet their children's physical needs (such as housing, food, and clothing), but also provide a greater number of opportunities for nurturing children's cognitive and emotional development. In addition, job control can also be viewed as a vital resource for all employed married men and women who are managing and coordinating home and work roles (Roxburgh, 1997).

From the above-mentioned contextualisation it is clear that an increasing number of dual earner parents are juggling demands in both work and nonwork roles, and a growing number of employees are having difficulty balancing these demands. This situation could result in interference between work and nonwork roles (Weigel et al., 1995). According to Jacob and Winslow (2004), tension between work and family can be the result of the demands of home (parenting and spouse), as well as normative and/or cultural expectations (such as having ideals of proper parenting). The basic assumption is that as pressure increases to complete demands within a certain domain (such as the nonwork domain) and resources are invested within that domain, there are fewer resources available to meet the consecutive demands in other domains, and this results in nonwork-work interference or work-nonwork interference (Goode, 1960; Greenhaus & Beutell, 1985). Work-nonwork interference occurs when the experiences in the work role interfere with the nonwork role (Greenhaus & Beutell, 1985). Nonwork-work conflict or interference (such as spouse-work interference, parent-work interference, domestic-work interference and religion/spiritual-work interference), in turn, occurs when participation in a nonwork activity interferes with involvement in a competing work activity (Frone, Russel, & Cooper, 1997; Greenhaus & Beutell, 1985).

Boyer, Carr, Mosley, and Carson (2007) note that when demands in one domain (either work or family) prevent an individual from meeting the demands of the other, there may be unmet role responsibilities, and these tend to result in either work-nonwork interference or nonwork-work interference. Within the nonwork domain, individuals may experience spouse-work interference, parent-work interference, domestic-work interference and religion/spiritual-work interference – indicating interference of the parent, spouse, domestic and religion role with the work role (Koekemoer, Mostert, & Rothmann, 2010). Nonwork-work interference thus means that family demands limit the performance of work duties. Studies also generally reveal that family demands are more likely to be related to nonwork-work interference (Frone, Yardley, & Markel, 1997). For parents, the more time and energy they devote to the responsibilities of one role (e.g., nonwork), the less they have available for other roles (e.g., work) (Byron, 2005; Greenhaus & Beutell, 1985). Therefore, the parent role conflicts with the work role. Netemeyer, Boles, and McMurrian (1996) also found that the more children one has, the more the demands increase and, in turn, the more one will tend to experience parent-work interference. It is not surprising that the demands of work and nonwork are not always compatible, leading to feelings of conflict between these domains (Magnus & Viswesvaran, 2005).

According to previous research, workers who face high levels of work or nonwork-interference are at greater risk of developing mental, physical and health consequences (Allen, Herst, Bruck, & Sutton, 2000; Judge, Boudreau, & Bretz, 1994; Magnus & Viswesvaran, 2005). In time, too much attention spent on the physical demands related to taking care of the diverse household, nonwork and work obligations or responsibilities will influence the well-being of employees (Thomas & Ganster, 1995). Bagger, Li, and Gutek (2008) elaborate that a high level of nonwork-work interference may leave individuals with fewer resources to deal with responsibilities at work, thus creating stress and tension. One of the most consistent and strongest findings of research in the field is the important relationship between such work-nonwork and nonwork-work interference on the one hand, and stress-related health outcomes such as psychological strain, anxiety and somatic complaints, elevated blood pressure, alcohol abuse (Allen et al., 2000), fatigue (Geurts, et al., 2005); clinical depression, (Allen et al., 2000; Frone, Russell, & Cooper, 1992), emotional exhaustion (Leiter & Durup, 1996) and organisational withdrawal (Magnus et al., 2005) on the other. According to Demerouti (2004) and Goldsmith (2007), family demands increase fatigue and health complaints. Therefore, people who experience greater levels of nonwork-

work interference, usually also experience an increase in health complications (Chandola, et al., 2004). Frone, Russel, and Cooper (1997) have also reported that nonwork-work interference predicts increased levels of poor self-reported physical health and hypertension status. Nonwork-work interference is, furthermore, associated with problems regarding mental health, physical health and health-related behaviour of employees (Kinnunen, Feldt, Geurts, & Pulkkinen, 2006).

Apart from the health outcomes related to high levels of nonwork-work interference, researchers have also connected nonwork-work interference to decreased levels of life satisfaction (Frone et al., 1992; Gutek, Searle, & Klepa, 1991; Judge et al., 1994; Magnus et al., 2005; Netemeyer et al., 1996; Voydanoff, 1988). According to Wiley (1987), nonwork-work interference has a negative impact on the levels of life satisfaction, especially in view of the fact that the work role (most important or not) is a large facet of a person's life. Work is essential to individuals' lives and it can be financially, socially and emotionally gratifying (Bedeian et al., 1988). Kinnunen and Mauno (1998) noted that nonwork-work interference was related to marital and parental dissatisfaction. Increased levels of conflict have been found to be related to dysfunctional social behaviours (Frone, Russell, & Barnes, 1996; Stewart & Barling, 1996), and these, in turn, give rise to dissatisfaction and distress within the family and work domains (Frone, Russel, & Cooper, 1997; Netemeyer, et al., 1996; Parasuraman, Purohit, Godshalk, & Beutell, 1996), and limit one's overall quality of life (Higgins, Duxbury, & Irvin, 1992), therefore contributing to the reduction of one's overall satisfaction with life. Glezer and Wolcott (1999) state that when the home interferes with the work role, this leads to lower levels of work satisfaction and general life satisfaction. The authors add that a possible explanation for this could be because pressure in the workplace has increased significantly over the past number of years. Feelings of insecurity about one's job can create the sense that one has to devote more time to the workplace in order to be seen as a committed employee, because redundancies, especially in today's day and age, occur frequently (Glezer & Wolcott, 1999). Therefore, if one's family interferes with the work role, one will have less time to devote to one's work role and this may cause significant pressure and a decrease in life satisfaction.

A better understanding of the consequences of the direction, type, reason and source of conflict and well-being could assist organisations and managers to design more appropriate workplace interventions aimed at promoting well-being and creating balance between the

nonwork and work domains for employees. This is necessary because employees might have fewer resources available to deal appropriately with other role demands (Greenhaus & Beutell, 1985) and this, in turn, will cause nonwork-work interference. As stated earlier, nonwork-work interference can give rise to health problems such as depression. Depression can also bring about consequences such as absenteeism, higher turnover intentions, cognitive difficulties, coronary heart disease, and a decline in productivity (Johnson & Indvik, 1997). Organisations therefore need to be made aware of the negative consequences of unbalanced work and family interactions, in order to be better equipped to deal with these problems appropriately – for the benefit of the organisation and its employees

### **Job demands resources theory (JD-R Model)**

The well-being of an individual is the outcome of two independent processes, according to the JD-R (Job demands and resources) model (Bakker, Demerouti, De Boer, & Schaufeli, 2003). Job demands refer to those physical, psychological, social, or organisational aspects of the job that involve continual physical and/or psychological (cognitive and emotional) effort or skills and are therefore related to certain physiological and/or psychological costs.

Job resources, on the other hand, are those physical, psychological, social, or organisational aspects of the job that are either/or: functional in achieving work goals; stimulate personal growth, learning, and development. and reduce job demands and the associated physiological and psychological costs.

### **Home demands and resources**

The JD-R model can be adapted to include home demands and resources. Home demands refer to those physical, psychological, social, or organisational aspects of the home that involve continual physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs. Home resources, in turn, refer to those physical, psychological, social, or organisational aspects of the home that are either/or: functional in achieving work goals; stimulate personal growth, learning, and development and reduce home demands and the related physiological and psychological costs.

According to Choi (2008), family demands refer to the time spent, level of commitment to, and responsibilities associated with fulfilling nonwork-related obligations such as the tasks of

housekeeping and child-care. The home demands relevant to this study include home pressure (Geurts et al., 2005; Voydanoff, 2005), biographical demands such as the number of children (Artazcoz et al., 2004) and the age of children (Bedeian et al., 1988).

According to Choi (2008), emotions resulting from one domain tend to spill over to another domain, thus causing interference between the two domains. Therefore, home emotional demands are included in this study. According to Bakker et al. (2003), job demands also refer to emotional and cognitive demands; if these are adapted to home demands, the latter will also refer to emotional and cognitive demands at home. Emotional and cognitive home demands are thus also to be included in the present study. Family resources are household assistance that may reduce demands, facilitate performance, or generate resources in one's work and/or nonwork roles (Voydanoff, 2004) which may include support in the home domain and autonomy in the home domain.

### **Nonwork-work interference**

According to Bulger, Hoffman, and Matthews (2007), the strength of the boundaries around both personal and work life has a bearing on the outcomes of the interaction between work and personal life, for example on work–nonwork interference (Bulger et al., 2007).

According to Greenhaus and Beutell (1985), work-nonwork interference occurs when involvement in the work role and the nonwork role is in some way incompatible. Thus, participation in one role is made more difficult by virtue of participation in the other role. Nonwork-to-work interference occurs when experiences in the family interfere with work life (Greenhaus & Beutell, 1985). Netemeyer et al. (1996) explain this notion by stating that nonwork-work interference (more specifically spouse-work, parent-work, domestic-work, religion/spiritual-work interference) therefore constitutes a form of interrole conflict in which the general demands of, time devoted to, and strain created by the family (spouse, parent, domestic and religion) interfere with performing work-related responsibilities. According to Geurts et al. (2005), when effort at investment in the home domain become too much (for example, household or care-giving activities that constantly require effort) and recovery is inadequate, negative load reactions will develop and spill over to the work domain, causing nonwork-work interference.

## **Well-being outcomes**

### **Health**

Thoits (1995) states that physical health outcomes are most frequently assessed as consequences of constant unemployment or constant job strains, while mental health outcomes are regarded as consequences of a much wider range of persistent complications (marital, parental, occupational and financial). People who are exposed to elevated levels of work stress and family demands have an increased risk of experiencing mental health problems, specifically depression (Melchior, Berkman, Niedhammer, Zins, & Goldberg, 2007). A number of health outcomes including physical health, anxiety and depression are measured by means of the General health questionnaire (Goldberg & Williams, 1988).

### **Exhaustion**

According to Demerouti and Bakker (2007) exhaustion is one of the core dimensions of burnout. Burnout is psychological syndrome that may appear when employees are experiencing a stressful environment with high demands and few resources. Additionally, exhaustion can be defined as the result of immense physical, affective and cognitive strain i.e. prolonged exposure to certain demands (Demerouti & Bakker, 2007). Goldsmith (2007) in turn, states home demands can increase fatigue which can, in turn, lead to exhaustion. Exhaustion can also be the outcome of too much nonwork-work interference (Allen et al., 2000).

### **Cognitive weariness**

Cognitive weariness is also an outcome under investigation. Cognitive weariness can be defined as a person's inability to take on new information; it therefore refers to a person's lack of concentration (Van Horn, in press).

### **Life satisfaction**

According to Diener (1984), life satisfaction refers to a general evaluation of feelings and attitudes about an individual's life at a certain point in time, ranging from positive to negative. It is one of the major indicators of well-being. Satisfaction, according to Sousa and Lyubomirsky (2001), is a Latin word that means to make or do enough. Therefore, satisfaction with one's life refers to acceptance of one's own life circumstances, or to the fulfilment of one's wants and needs in terms of one's life as a whole. More precisely,

Campbell, Converse, and Rodgers (1976) have conceptualised life satisfaction as the difference between what one wants and what one has. In essence, life satisfaction is a subjective estimation of the value of one's life.

Based on the description of the research problem and literature review above, the following research questions have been formulated:

- What is the relationship between home characteristics (home demands and resources), nonwork-work interference (including spouse-work, parental-work interference, domestic-work and religion/spiritual-work interference), and well-being (life satisfaction, health, cognitive weariness and exhaustion) according to the literature?
- What is the relationship between home characteristics (home demands and home resources), nonwork-work interference (i.e. spouse-work, parental-work, domestic-work, religion/spiritual-work interference), and well-being (life satisfaction, health, cognitive weariness and exhaustion) among a sample of dual earner parents?
- Which home characteristics and nonwork-work interference are significant predictors of well-being for a sample of dual earner parents?
- What recommendations could be made for future research and for practice?

In order to answer the above research questions, the following research objectives have been set.

## **1.2 RESEARCH OBJECTIVES**

The research objectives are divided into general and specific objectives.

### **1.2.1 General objective**

The general objective of this research is to determine the influence of home characteristics and nonwork-work interference on the well-being of dual earner parents.

### **1.2.2 Specific objectives**

The specific objectives of this research are:

- To determine the relationship between home characteristics (home demands and home resources), nonwork-work interference (including spouse-work, parental-work interference, domestic-work and religion/spiritual-work interference, and well-being (life satisfaction, health, cognitive weariness and exhaustion) according to the literature.
- To determine the relationship between home characteristics (home demands and resources), nonwork-work interference (i.e. spouse-work, parental-work, domestic-work, religion/spiritual-work interference, and well-being (life satisfaction, health, cognitive weariness and exhaustion) among a sample of dual earner parents.
- To determine which home characteristic and, nonwork-work interference are significant predictors of well-being (life satisfaction, health, cognitive weariness, and exhaustion) for a sample of dual earner parents.
- To make recommendations for future research and for practice.

### **1.3 RESEARCH METHOD**

In light of the specific objectives, this study consists of two phases, namely a literature review and an empirical study. In phase 1, a literature review of the concepts home characteristics, nonwork-work interference, dual earner parents, health, and life satisfaction is presented. The sources that are consulted include books, and journals. These are accessed via databases such as Ebsco Host from the North-West University library. The empirical study, which is the second phase of the study, consists of the research design, participants, measuring battery, and statistical analysis.

#### **1.3.1 Research design**

A cross-sectional survey design is used to collect the data and to reach the research objectives. This design allows information to be collected from a sample or population at one time (Zechmeister & Shaughnessy 1997). The cross-sectional survey design can also be used to assess interrelationships among variables within a population (Zechmeister & Shaughnessy, 1997).

### 1.3.2. Participants and procedure

For the purpose of this study, a sample of working married parents (dual earner parents) ( $N=207$ ) is taken from nursery schools in the Vaal Triangle area. Parents often place their children in nursery school, not only to stimulate them from a young age, but mostly because both parents need to work. It is therefore decided to sample dual earner parents via their children's nursery schools. It is also important to sample dual earner married parents since nonwork-work interference (parent-work, spouse-work, religion/spiritual-work and domestic-work interference) was measured. A letter is given to the principals of the nursing schools which explained the research and request participation. The parents whose children attend the specified nursing schools are targeted for inclusion for study. Permission is given to conduct the research, and questionnaire booklets are distributed to the teacher who, in turn, circulates it among parents of children. Participation in the study is voluntary, and a convenience sample is therefore used, because this type of sampling it is based on the availability of participants. The parents are responsible for returning the booklets to the teachers and in good time, it is personally retrieved from the principals. The questionnaires includes a letter explaining the importance and goal of the study. It also includes contact information if participants required further information. The confidentiality and anonymity are clearly stated in the letter.

### 1.3.3 Measuring Battery

**Home demands.** Peeters, Montgomery, Bakker, and Schaufeli (2005)'s home demand scale is adapted within this study to measure home pressure (3-items, e.g., "How often do you find that you lack the time at home to do everything that has to be done?"); emotional home demands (3-items, e.g., "How often do you find that you are confronted at home with things that are emotionally upsetting?"); and cognitive home demands (3-items, e.g., "How often does it happen that you have a lot to plan and organise at home?"). All of these home demands items are rated on a four-point Likert scale ranging from 0 (*never*) to 3 (*always*). Acceptable Cronbach's alpha coefficients were found ranging from 0,80 to 0,81 for home pressure (Demerouti, Bakker, & Voydanoff, 2010; Koekemoer & Mostert, 2010; Peeters, et al., 2005) and 0,69 to 0,77 for emotional home demands (Koekemoer & Mostert, 2010; Peeters, et al., 2005). Reliable alpha coefficients were also found for cognitive home demands ranging between 0,80 and 0,89 (Demerouti, et al., 2010; Peeters, et al., 2005).

**Home resources:** The home resources scale developed by Demerouti et al. (2010) are adapted and utilised. The scale is used to measure home autonomy (3-items, e.g., “How often does it happen that you have control over how you use your free time?”); home support (4-items, e.g., “How often does it happen that, if necessary, your partner or family members will help you with a particular task at home?”); and home developmental possibilities (3-items, e.g., “How often does it happen that, you can develop your talents during your free time?”). All of these home resources are rated on a four-point Likert scale ranging from 0 (*never*) to 3 (*always*). Acceptable alpha coefficients were found by ranging between 0,64 and 0,69 for autonomy; 0,70 and 0,86 for home support and 0,82 and 0,87 for developmental possibilities (Koekemoer & Mostert, 2010; Demerouti et al., 2010). Black and Porter (1996) stated that an alpha coefficient of 0,60 and higher is considered satisfactory when conducting exploratory research.

**Nonwork-work interference:** A new instrument was developed by Koekemoer and Mostert (2010) measuring the interference between work and nonwork roles (including parent, spouse, domestic and religion roles). This scale can usefully measure interferences in both directions (work to nonwork roles or nonwork roles to work). However, in the present study, only the scales measuring the interference from and between the nonwork roles (spouse, parent, religion, domestic) and work domain are used (i.e. parent-work, spouse-work, religion/spiritual-work and domestic-work). All items are rated on a 4 point-point scale ranging from 1 (*Never*) to 3 (*Always*). Spouse-work interference, Parent-work interference, Domestic-work interference and Religion/spiritual interference are measured by 3 items each (e.g. “How often does it happen that your spouse/partner disturbs or distracts you while you are working?”; “How often does it happen that your work is not done in time because you have to take care of your children?”; “How often does it happen that domestic responsibilities reduce the effort you invest in your job?”; and “How often does it happen that due to your participation in religious/spiritual activities, you do not pay full attention to certain aspects of your job?”). These scales were found to be reliable (parent-work interference,  $\alpha = 0,76$ ; spouse-work interference,  $\alpha = 0,77$ ; domestic-work interference,  $\alpha = 0,82$  and religion/spiritual-work interference,  $\alpha = 0,74$ ) (Koekemoer & Mostert, 2010) when compared to the guideline of  $\alpha > 0,70$  (Nunnally & Bernstein, 1994).

**Ill Health.** The General Health Questionnaire (GHQ; Goldberg & Williams, 1988) is adapted and used to measure physical health (3 items, e.g., “Have you been getting any pains in your

head?”), anxiety (3 items, e.g., “Have you been getting edgy and bad-tempered?”) and depression (3 items, e.g., “Have you felt that life is entirely hopeless?”). Items are rated on a four-point scale ranging from 1 (*Not at all*) to 4 (*Much worse than usual*). Reliable alpha coefficients were found in previous studies, ranging between 0,81 and 0,85 for physical ill health, between 0,84 and 0,90 for anxiety and between 0,79 and 0,92 for depression (Koekemoer & Mostert, 2010; Mostert, 2009; Oldfield & Mostert, 2007).

**Exhaustion.** The OLBI (Demerouti & Bakker, 2007) is used to measure exhaustion and disengagement, but for the purpose of this study, items are adapted from the OLBI, to measure only exhaustion. The seven items of the exhaustion sub-scale are generic and refer to general feelings of emptiness. For example, “I usually feel worn out and tired after my work.” These items are rated on a four-point scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Reliable Cronbach alphas were found for this scale in previous studies, ranging between 0,74 and 0,85 (Demerouti et al., 2001; Demerouti & Bakker, 2007; Demerouti, Bakker, & Mostert, 2010).

**Cognitive weariness.** Van Horn, Taris, Schaufeli, and Schreurs (2004)’s scale of work concentration was adapted and used to measure cognitive weariness, (5-items, e.g., “I make errors when I am at work.”). A seven-point scale was used to rate the items, ranging from 0 (never) to 6 (every day). Van Horn et al., (2004) and Koekemoer and Mostert (2010) found the scale to be reliable with alphas ranging between 0,87 and 0,92.

**Life satisfaction.** The life satisfaction scale measures an individual’s perceptions regarding the quality of his or her life in general. Life satisfaction is measured with a seven-point item scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale was developed by Diener, Emmons, Larsen, and Griffin (1985). An example of an item from this scale is “I am satisfied with my life in general.” The Cronbach alpha estimate for this in previous studies were 0,88 (Diener et al., 1985).

**Biographical questionnaire** – A short biographical questionnaire is also included which measures demographic characteristics such as gender, marital status, years of marriage, age, education, race, work hours, number of children, age of children, and domestic help.

### **1.3.4 Statistical Analysis**

In the preliminary analysis of the measuring instruments AMOS is used to determine the construct validity of the measuring instruments. Further statistical analysis are carried out using PASW (Predictive Analytic Software) statistics program (SPSS Inc., 2009). Descriptive statistics are used with the SPSS programme to provide an overall, coherent and straightforward picture of a large amount of data which will include the mean, standard deviations, skewness and kurtosis. (Struwig & Stead, 2001). The reliability of the instruments are indicated with cronbach alpha coefficients, according to the guideline of Nunally and Bernstein (1994) where  $\alpha > 0,70$  is known to be acceptable.. The Pearson product-moment correlation is to determine the extent to which variation in one continuous variable explains the variation in another continuous variable. It examines the strength and direction of the relationship between variables (Struwig & Stead, 2001). It is applied within this study, determining the relationship between home characteristics, nonwork-work interference, and well-being. Cut-off points of 0.30 (medium effect) and 0.5 (large effect) (Cohen, 1988) are set for the practical significance of the correlation coefficients.

Multiple regression analyses are performed to determine which home characteristics and nonwork-work interference predict the well-being of dual earner parents. Multiple regression analyses involve a group of statistical procedures that tests the relationship between one dependent variable and multiple independent variables. According to Struwig and Stead (2001) these procedures can also be utilised to determine the level to which the independent variables predict a dependent variable.

### **1.3.5 Ethical considerations**

Conducting research is a moral activity. Research ethics supply researchers with a code of moral guidelines on how to conduct research in a morally suitable way. The following are at all times relevant for an ethical climate (Struwig & Stead, 2001):

- The researcher must be competent and skilled to participate in a research study and the researcher must maintain the standards of their line of work at all times;

- The researcher must always respect the dignity and rights of others. This includes having respect for the autonomy, privacy and confidentiality of the participants. Even though the teachers will also handle the questionnaires, utmost privacy and respect will be a prerequisite. The ethical applications will be communicated to the teachers by explaining to them the importance of keeping all the information anonymous and confidential. Researchers should always keep in mind and not discriminate the cultural and individual differences among people (e.g. age, gender, race, language, socio-economic status, religion and ethnicity).
- Integrity is a vital characteristic of a researcher. The researcher must thus be fair, honest and respectful towards others and not attempt to mislead or deceive clients or participants.
- Researchers should always be concerned for the welfare of others. They should avoid or minimise any harm befalling their clients or participants as a result of interaction with them. A research project should benefit those participating in it and the procedure of a project must be cautiously monitored so those research participants are not adversely affected by it.
- Researchers should always uphold standards and accept responsibility for their actions.
- Participants needs to voluntarily agree to take part in the research. Researchers must ensure that participants know they have a choice and they can decline at any point in time. A letter was given to the principal asking permission. The parents also received a letter explaining the goal and importance of the study and asking them to participate. No participation was therefore forced.
- Deception refers to withholding information or giving erroneous information. The researcher must therefore be careful of deceiving participants. Within this study all the information regarding the study was explained. Contact detail was also included for participants with further enquiries.

#### **1.4 OVERVIEW OF CHAPTERS**

In Chapter 2, home characteristics (home demands and home resources), nonwork-work interference (parent-work, spouse-work, religion/spiritual-work and domestic-work interference), well-being outcomes (health, cognitive weariness, life satisfaction, exhaustion) for a sample of dual earner parents are examined. The discussion, limitations, and recommendations of this study are discussed in Chapter 3.

## **1.5 CHAPTER SUMMARY**

This chapter provided a discussion of the problem statement and research objectives. Furthermore the research method was explained, followed by a brief overview of the chapters that follow.

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## **Chapter 2**

### **Research article**

# **HOME CHARACTERISTICS, NONWORK-WORK INTERFERENCE AND WELL-BEING OF DUAL EARNER PARENTS.**

## **ABSTRACT**

The general objective of this study was to investigate the home characteristics, nonwork-work interference and well-being in a sample of dual earner parents. A convenience sample of dual earner parents ( $N=207$ ) was taken in the Vaal Triangle area in Gauteng. The following scales were used for this study: the home demands scale (Peeters et al., 2005), home resources (Demerouti et al., 2010); the Work-nonwork Interference Scale (Koekemoer, Mostert, & Rothmann, 2010); the General Health Questionnaire (GHQ) (Goldberg, & Williams, 1988); exhaustion scale, Cognitive weariness scale (Van Horn et al., 2004); and life satisfaction scale (Diener et al., 1985) (using the OLBI) (Demerouti & Bakker, 2007). Descriptive statistics, Cronbach alpha coefficients, Product moment correlations and multiple regressions were used to analyse the data. The results indicated that emotional home demands and lack of autonomy significantly predict physical ill health; emotional home demands and spouse-work interference significantly predict anxiety; and emotional home demands significantly predict depression. Furthermore, gender, home pressure, developmental possibilities and parent-work interference were significant predictors of exhaustion. Recommendations were made for future research and, on a more practical level, for dual earner parents.

Over recent years, the dynamics of family structures have changed dramatically - one of these being the increased percentage of families supported by dual incomes (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005). Indeed, by the end of the 20<sup>th</sup> century the dual earner family had replaced the breadwinner-homemaker family (Bruck, Allen, & Spector, 2002). Therefore, dual earner parents have become the norm, rather than the exception (Weigel, Weigel, Berger, Cook, & Delcampo, 1995). One explanation for this increase in the number of dual earner families might be linked to the fact that women are entering the workplace at a rapid speed (Hammer et al., 2005). Also, recent years have witnessed a dramatic change in the social perception of a woman's place in life as more women are being accepted into the workplace (Franks, Schurink, & Fourie, 2006). The participation of women in the workplace cannot only be ascribed to changes in social sentiments toward women's employment, but also to generally declining economic conditions on the one hand, and the rising educational levels of women on the other (Naidoo & Jano, 2002; Smith, 1981).

Currently in South Africa, women constitute 45% of the workforce; this relatively high percentage is also ascribed to the fact that an increasing number of women are compelled to work for economic reasons (Baggallay, 2011; Casale & Posel, 2002). Consequently, this state of affairs gave rise to the emergence of ever-larger numbers of dual earner couples (Hammer, Allen, & Grigsby, 1997; Holahan & Gilbert; 1979; Naidoo & Jano, 2002). A dual earner couple refers to a situation where both spouses are employed, whether this employment is based on the drive towards success, financial gain or taking care of their families more comfortably. According to Rapoport and Rapoport (1971), a dual-career couple can be defined as an entity where both adult members of the household engage in work (requiring commitment) and at the same time commit to a family life that may include children. Bond, Thompson, Galinsky, and Prottas (2003) state that the percentage of dual earner couples were already 78% in the year 2003 and that this percentage is constantly growing (Baggallay, 2011).

Due to the reality of more women in the workforce (consequently creating more dual earner couples), many other roles have also changed. Women's entrance into the workforce did not only affect their own lives in a particular manner, but also changed the roles that men play (Wallace & Price, 2003). For example, men are not necessarily the sole breadwinners anymore, and their parenting role has also become more apparent (Patel, Govender, Paruk, & Ramgoon, 2006;

Pleck, 1993). Clearly, dual earner couples are confronted with a variety of different roles which they need to fulfil especially if they are also parents (referred to as dual earner parents).

They need to be emotionally committed to their children, as well as to various others personal roles such as being a spouse, religion/spiritual roles, and domestic and work roles. Goldsmith (2007) states that the emotional dimension of such diverse roles can no longer be ignored. To nurture each role with efficient and appropriate emotional energy can, however, be very challenging. For example, individuals/parents may invest a vast amount of energy into a certain role and will therefore be less emotionally available to other family members who require one to be warm, emotional, vulnerable, nurturing and open in one's interaction with them (Greenhouse & Beutell, 1985). This situation can also be seen in the reverse: if individuals/parents invest a great deal of emotion and effort into their family roles (that of spouse or parent), they may be emotionally drained when trying to cope with the demands at work. Parents also worry about their children, and this contributes to the emotional demands that parents have to deal with (Peeters, Montgomery, Bakker, & Schaufeli, 2005).

Parents are more pressured for time than couples who are not parents, and are subsequently more vulnerable to becoming stressed out (Arendell, 2000; Robinson & Godbey, 1997). In line with the above, a younger child tends to cause greater pressures in terms of time, and makes heavy demands on the time and energy of employees and energy (Roxburgh, 2002). The younger the children, the more dependent they are on their parents. Therefore, the number and age of children are objective indicators of the amount and level of demands parents have to deal with (Rothausen, 1999).

In addition to parenting, being a spouse also places a number of demands on the relationship of a dual earner parent. Husbands and wives may at times experience conflict regarding issues such as the division of certain tasks, for instance housework duties (Chang, 1999). According to Voydanoff (2005), demands can be seen as structural or psychological challenges connected to the role requirements, expectations and norms to which individuals must adapt through physical or mental efforts. For many employees, family demands may indeed have become more complex than they used to be. Many parents find it difficult to juggle all the competing demands placed on each role within their personal lives (Byron, 2005). Dual earner parents often rely heavily on certain resources in order to cope with these extensive demands. For example, dual earner

parents may try to minimise their household demands by finding substitutes for, or outsourcing domestic tasks and care-giving work (De Ruijter & Van der Lippe, 2007). Wallace and Young (2008) list the following examples of outsourcing: housekeepers, day-care, handymen, laundry services, takeout food and restaurants. According to Janssen, Peeters, De Jonge, Houkes, and Tummers (2004), serious conflicts can arise between the family and work roles if individuals' resources are depleted due to ever-increasing demands (especially if the demands arise from both the work and family domains).

Demerouti, Bakker, and Voydanoff (2009) also state that family demands are strongly associated with nonwork-work interference because these demands require effort and therefore minimise the resources available for functioning in another domain. Byron (2005) elaborates on this notion by stating that when a person invests a great deal of resources in order to cope with the demands of the nonwork domain, less energy is available to invest in a competing activity of the other domain; this means that the nonwork domain is consequently interfering with the work domain. Therefore the home role (i.e. taking care of one's children or spouse or one's home in general) can interfere with the work role – this is commonly referred to as home-work interference (Frone, 2003). Although studies conducted regarding interference from work to nonwork roles are more prevalent in the literature (Bakker & Geurts, 2004; Bruck, Allen, & Spector, 2002; Byron, 2005; Car, Boyar, & Gregory, 2008; Carlson, Kacmar, Wayne, & Grzywacz, 2006; Clarke, Koch, & Hill, 2004; Netemeyer, Boles, & McMurrin, 1996; Noor, 2002; Valcour, 2007), the interference between nonwork and work roles is also a reality; it is therefore important to research this relationship. Ashforth, Kreiner, and Fugate (2000) suggest that the nonwork domain and the work domain are both very important to individuals; the authors further note that every domain has certain important roles that individuals need to fulfil, so that it becomes clear that it is important to research both domains. Since the interference between the nonwork domains and the work domain poses a possible problem for dual earner parents, it is a salient element in this dynamic and requires further investigation.

Nonwork-work interference can be defined as individuals participating in a nonwork domain (spouse, parent, domestic, religion/spiritual) activity which interferes with the engagement/involvement in a competing work activity (Frone, Russel, & Cooper, 1997; Greenhaus & Beutell, 1985). The more time and energy dual earner parents devote to the responsibilities of a certain nonwork role (e.g. family or parenting), the less energy they have

available for their work role (Byron, 2005). According to Koekemoer et al. (2010), nonwork-work interference is the process during which participation in nonwork roles (parent, spouse, domestic and religion/spiritual) interferes with the involvement of the work role. Additionally, according to Koekemoer et al. (2010), it is true that within the nonwork domain, a person may experience spouse-work interference, parent-work interference, domestic-work interference or religion/spiritual-work interference. Particularly, couples with children have been noted to experience interference between their family and work roles (Crouter, 1984; Higgins, Duxbury, & Lee, 1994).

According to Janssen, et al. (2004), if recovery from the unbalanced pressures within the work and family domain is inadequate, this may lead to health complaints. Bagger, Li, and Gutek (2008) further explain this notion; the authors suggest that high levels of nonwork-work interference can leave individuals with fewer resources available for coping with responsibilities at work, and thus creating stress and tension. Chandola et al. (2004) elaborate that there is a very significant relationship between nonwork-work interference and well-being outcomes such as anxiety, depression and other poor health outcomes (e.g. psychological strain, somatic complaints, elevated blood pressure and alcohol abuse). If an employee has to meet many diverse demands, this may result in high levels of nonwork-work interference. Such an employee risks developing mental, physical and health problems (Allen, Herst, Bruck, & Sutton, 2000; Judge, Boudreau, & Bretz, 1994; Magnus & Viswesvaran, 2005). Frone, Russel, and Cooper (1997) concur; these authors propound that nonwork-work interference predicts decreased levels of self-reported physical health. Apart from health outcomes, life satisfaction can also be influenced. According to various researchers, high levels of nonwork-work interference can lead to a decrease in life satisfaction (Frone, Russel, & Cooper, 1992; Gutek, Kossek & Ozeki, 1998; Gutek, Searle, & Klepa, 1991; Judge et al., 1994; Magnus et al., 2005; Netemeyer et al., 1996; Voydanoff, 1988).

From the above contextualisation, it becomes clear that home demands and a lack of home resources are related to nonwork-work interference (Bakker, Demerouti, De Boer, & Schaufeli, 2003). These, in turn, might be related to well-being problems (physical ill health, anxiety, depression, and exhaustion) and also to a possible decrease in overall life satisfaction (Gilbert, Holahan, & Manning, 1981; Repetti, 1989; Voydanoff & Kelly, 1984).

## **Home characteristics and theoretical model**

Home characteristics can be described as home demands and home resources that influence an individual in one way or another. These are very strongly related to the JD-R (job demands and job resources) and therefore the purpose of this study can be explained from the JD-R model (Bakker, Demerouti, De Boer, & Schaufeli, 2003).

The JD-R model proposes that the well-being of individuals is the consequence of two independent processes (Bakker, Demerouti, et al., 2003). Job demands can be seen as those physical, psychological, social or organisational aspects of work that encompass ongoing physical and/or psychological (cognitive and emotional) effort or skills, and are thus connected to some physiological and/or psychological consequences. In turn, job resources are described as those physical, psychological, social or organisational aspects of work that are instrumental to reach certain work objectives; to minimise job demands and the related physiological and psychological consequences; and to enhance personal growth, learning and development. Home demands and resources are adapted from this JD-R model.

If one were to consider the above definition of job demands and adapt it for the purposes of the current study, home demands can be seen as those physical, psychological, social or organisational aspects of the home that encompass ongoing physical and/or psychological (cognitive and emotional) effort or skills, and are thus connected to some physiological and/or psychological consequences. Wallace and Young (2008) define nonwork (family) demands as time and energy devoted to taking care of household and parental duties.

According to Voydanhoff (1992), home demands are associated with processes that lead to nonwork-work interference. According to Peeters et al. (2005), emotional demands refer to the affective component of home and the degree to which one's home puts one in emotionally tense situations. Cognitive demands, on the other hand, can be described as a means of controlling and regulating oneself. Controlling and regulating oneself can further be explained as the mental effort necessary to inhibit, control or change one's unstructured and habitual thoughts, emotions, and response patterns in order to perform planned and purposeful behaviour (Schmeichel, 2007).

Other family demands may include home pressures regarding responsibilities related to family-related duties (e.g. tasks such as housekeeping and child-care) (Choi, 2008). According to

Greenhaus and Powell (2003), pressure encourages a psychological force within the individual to meet certain expectations. Pressure may result from the added responsibilities women and men are contending with - functioning simultaneously as wives/husbands, mothers/fathers, members of extended families, and as workers (Rayyan & Kullik, 2006). According to Konrad (2003), the massive entry of women into the job market has increased the number of dual earner couples and has at the same time placed growing pressure on spouses as a result of the multiple roles they must fill.

Further adapting the definition of job resources from the JD-R model, one can regard home resources on the other hand as physical, psychological, social or organisational aspects of the home that are instrumental to reach nonwork objectives; to minimise nonwork demands and the related physiological and psychological consequences; and to enhance personal growth, learning and development. According to Demerouti, Bakker, and Voydanoff (2009), home resources facilitate work performance by providing means (e.g. social support from one's partner, domestic worker) or by enhancing individual abilities (e.g. developmental possibilities). Resources are therefore counted upon to help reduce demands and to assist in dealing with an extreme workload (Bakker & Geurts, 2004).

According to Bakker and Geurts (2004), autonomy can help a person to cope with an extreme workload. According to Perry-Jenkins, Repetti, and Crouter (2000), autonomy also helps to shape a person's values and beliefs; a person can then generalise these lessons to other parts of his or her life. Development possibilities, in turn, enhance a person's drive to achieve positive outcomes within tasks (Bakker & Geurts, 2004). In addition, social support (spouse support or work-related support) can also be seen as resources that help a person to cope with the very demanding challenges of different roles, for example a spouses' contributions to household and childcare responsibilities can assist a person to cope with other roles (Wallace & Young, 2008). Social support in both the family and work domains refers to the totality of emotional (thoughtfulness, caring) or instrumental aid one receives (Goldsmith, 2007).

### **Nonwork-work interference**

Greenhaus and Beutell (1985) defined work-nonwork interference in traditional terms as: "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible, in such that participation in one role makes it difficult to participate in

the other". Various researchers have followed suit and have conducted different research-based studies on the topic of work-family conflict (WFC) as well as on family-work conflict (FWC) (Boyer, Carr, Mosley, & Carson, 2007; Frone, 2003; Geurts et al., 2005; Geurts & Demerouti, 2003; Magnus & Viswesvaran, 2005; Netemeyer et al., 1996; Voydanoff, 2005). According to Frone (2003), the traditional definition of Greenhaus and Beutell (1985) implies a bidirectional dimension in the sense that work can interfere with home and home can interfere with work. Voydanoff (2005) concurs by stating that work-nonwork interference can assume two forms: work-to-nonwork interference in which the demands of work make it hard to perform nonwork responsibilities, and nonwork-to-work interference in which nonwork demands limit the performance of work duties (Voydanoff, 2005). For the purposes of the current study, however, only the interference from the nonwork domain on the work domain is investigated (i.e. nonwork-work interference).

According to Koekemoer et al. (2010), nonwork-work interference refers to the process by means of which one's participation in nonwork roles interferes with participation in the work role. Based on this, Koekemoer et al. (2010) define work-nonwork interference as the process through which participation in the work role interferes with involvement in roles within the nonwork domain, while nonwork-work interference is the process by means of which the functioning in nonwork roles interferes with involvement in the work role. There are not many scales that can be used to investigate the phenomenon of nonwork-work interference, especially with a view to measure different family dimensions or nonwork roles (Aryee, 1992; Mallard & Lance, 1998; Premeaux, Adkins, & Mossholder, 2007; Small & Riley, 1990). It is, however, necessary for the present study to investigate nonwork-work interference with different various roles. Fortunately, a new scale was developed by Koekemoer et al. (2010) in order to assist researchers to overcome these limitations. This scale was developed to measure interference in both directions (work-nonwork interference and nonwork-work interference) within different dimensions (e.g. parent, spouse, domestic and religion/spiritual roles), which makes it very appropriate for the present study.

### **Well-being outcomes**

Well-being refers to the person as a whole and can be seen as the physical, mental and emotional health of an individual (Danna & Griffin, 1999). Physical health, for example, provides energy, mental sharpness, stamina and enhances high role performance, but physical ill health is likely to

be seen in lost time (work absenteeism) and a decrease in role performance (Cartwright & Cooper, 1997). There are many different definitions of health. Antonovsky (1987) suggests that health should be viewed as a multidimensional continuum rather than a dichotomy, and that it should also encapsulate functional abilities and the absence of chronic disease in addition to subjective assessments of an individual's fitness. An individual experiencing poor health will not be able to do his/her best on the job or he/she will not be able to execute tasks as successfully as necessary. Depression, for example, can lead to absenteeism, higher turnover intentions, cognitive difficulties and a decline in productivity (Johnson & Indvik, 1997). Anxiety can, furthermore, lead to early retirement, but it can also affect job participation and absenteeism (Linden & Muschalla, 2007). Furthermore, ill workers can give rise to financial, turnover and lawsuit problems; these are, of course, not beneficial to organisations or to the individual (Geurts & Demerouti, 2003; Greenhaus, Collins, Singh, & Parasuraman, 1997). Cognitive weariness can, furthermore, lead to a lack of concentration at work (Van Horn et al., in press). As part of the well-being continuum, cognitive weariness can be defined as an individual's incapacity to take on new information (Van Horn et al., in press).

According to Sonnentag and Frese (2003), if an individual struggles to reach work objectives because the strain on their mental capacity is too high, exhaustion will be the consequence. Exhaustion can therefore be the result of nonwork-work interference (Allen et al., 2000; Leiter & Durup, 1996; Small & Riley, 1990). Goldsmith (2007) also states that certain home demands can increase fatigue which can, in turn, possibly lead to exhaustion.

Life satisfaction refers to a sense of contentment with, or acceptance of the individual's life circumstances, or the fulfilment of one's desires and needs for one's life in whole (Sousa & Lyubomirsky, 2001). Therefore, life satisfaction can be seen as a subjective assessment of the quality of one's life. Quality of life can be defined as the affective beliefs that individuals have about their lives (their attitudes toward their own lives) (Rice, McFarlin, Hunt, & Near, 1985). According to Diener (1984), measures of satisfaction and happiness are typically used to operationalise the perceived quality of life.

The following well-being outcomes are therefore important in this study: physical ill health, anxiety and depression, exhaustion, (lack of) life satisfaction and cognitive weariness.

In view of the problem statement and literature review set out above, the aim of this study can be formulated at this point, namely to investigate the home characteristics (home pressure, emotional and cognitive as demands; autonomy, developmental possibilities and social support as resources), nonwork-work interference (spouse-, parent-, domestic- and religion/spiritual-work interference) and well-being (physical ill health, anxiety, depression, exhaustion, cognitive weariness and life satisfaction) of a sample of dual earner parents. Specific objectives are to determine: 1) the relationship between home characteristics, nonwork-work interference and well-being among dual earner parents; and 2) whether home characteristics and nonwork-work interference are predictors for well-being outcomes for dual earner parents.

## **METHOD**

### **Research design**

A cross-sectional survey design was used in order to achieve the research objectives. Cross-sectional research designs allow the researcher to collect information from a sample at one time; these designs also help one to assess the interrelationships among variables within a population (Shaughnessy & Zechmeister, 1997). Data was therefore retrieved at only one point in time in order to test the common and different relationships between all the variables.

### **Participants and procedure**

In this study, a convenience sample ( $N = 207$ ) was taken from working married couples who have children in nursery schools. The participants were targeted at nursery schools in the Vaal Triangle area (response rate = 33,4%). Working married participants who were available and willing to participate were selected. For this study, it was important to select dual earner married parents since nonwork-work interference (including spouse, parent, domestic and religion/spiritual roles) was measured. Prior to the research, a letter explaining the research and requesting participation was given to the principals of the participating nursery schools, after which the letter was also sent to all the parents via their children at the various schools. After permission was granted from the principals of the schools, questionnaires were distributed. These included a letter explaining the goal and importance of the study and provided the contact information of the researcher should there be any enquiries. The confidentiality and anonymity

of participation were clearly stated in the letter. Participants were given two weeks in which to complete the questionnaires. The questionnaires were retrieved from the principal after reminders were frequently given by means of text messages, phone calls, messages on the school's notice-boards and school letters. Although there were a few reminders, these were of such nature that they did not interfere with the participants' daily or private lives. The questionnaires were then collected personally from the principals at the schools on an arranged date. The characteristics of the participants are displayed in Table 1.

Table 1

*Characteristics of Participants (N = 207)*

<b>Item</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	35	16,90
	Female	172	83,10
Age	22-32 years	49	23,90
	32-41 years	128	61,80
	42-51 years	27	13,20
Race/Ethnicity	White	170	82,10
	African	25	12,10
	Coloured	7	3,40
	Indian	5	2,40
Working hours	Half day	45	21,70
	Full day	133	64,30
	Other work arrangements	26	12,60
	Missing values	3	1,40
Number of children	1	51	24,60
	2	111	53,60
	3	34	16,40
	More than 4 children	11	5,40
Domestic support	Domestic worker working half day	42	20,30
	Domestic worker working full day	96	46,40
	Other working arrangements with domestic worker	59	28,50
	Missing values	10	4,80
Years married	0-3 years	5	2,40
	3-6 years	26	12,60
	6-9 years	64	30,90
	9-12 years	60	29,00
	12-15 years	27	13,00
	More than 15 years	24	11,50
	Missing values	3	1,40

According to Table 1, the majority of the participants were female (83,10%), white (82,10%) and between the age of 31-42 years (61,80%). Most of the participants have been married for six to nine years (30,90%), and on average most participants had two children (53,60%). The majority of the participants worked full-time (64,30%) and 46,40% of the participants make use of a full-day domestic support.

## **Measuring instruments**

The following measurement instruments were utilised in the empirical study:

*Home demands.* Items were adapted from the home demands scale developed by Peeters et al. (2005), measuring home pressure (3-items, e.g. “How often do you find that you are busy at home?”); emotional home demands (3-items, e.g. “How often do emotional issues arise at home?”); and cognitive home demands (3-items, e.g. “How often does it happen that you have a lot to plan and organise at home?”). All of these home demands items were rated on a four-point Likert scale ranging from 0 ('never') to 3 ('always'). Acceptable Cronbach's alpha coefficients were reached by Peeters, et al. (2005) and Koekemoer and Mostert (2010) ranging from 0,80 to 0,81 for home pressure and 0,74 to 0,76 for emotional home demands. Peeters, et al. (2005) also found reliable alpha coefficients for cognitive home demands ( $\alpha = 0,80$ ).

*Home resources.* Items were adapted from the home resources scale developed by Demerouti et al. (2010). The scale mirrors existing scales of job resources, as numerous scholars have successfully used a job-related measure as a model for constructing a symmetrical home-related measure (Frone et al., 1992). The scale was used to measure home autonomy (3-items, e.g. “How often does it happen that you have control over how you use your free time?”); home support (4-items, e.g. “How often does it happen that, if necessary, your partner or family members will help you with a particular task at home?”); and home developmental possibilities (3-items, e.g. “How often does it happen that you can develop your talents during your free time?”). All of these home resources were rated on a four-point Likert scale ranging from 0 (never) to 3 (always). Koekemoer and Mostert (2010) and Demerouti et al. (2010) found acceptable alpha coefficients ranging between 0,64 and 0,69 for autonomy; 0,70 and 0,86 for home support and 0,82 and 0,87 for developmental possibilities. According to Black and Porter (1996), an alpha coefficient of 0,60 and higher is considered satisfactory when conducting exploratory research.

Nunnally (1967) also indicated that an alpha coefficient of between 0,50 and 0,60 is still acceptable for preliminary results, provided that further analysis of the instrument is conducted.

*Nonwork-work interference.* Items were used from the Work-nonwork Interference Scale of Koekemoer et al. (2010) in order to measure parent-work interference (3-items, e.g. “Your work is not done in time because you have to take care of your children”); spouse- work interference (3-items, e.g. “How often does it happen that your spouse/partner disturbs or distracts you while you are working?”); domestic-work interference (3-items, e.g. “How often does it happen that domestic responsibilities reduce the effort you invest in your job?”); and religion/spiritual-work interference (e.g. “How often does it happen that due to your participation in religious/spiritual activities, you do not pay full attention to certain aspects of your job?”). Although this scale was developed to measure interference from both directions work to nonwork and nonwork to work, in this study only those items measuring the interference from nonwork-work were used. These items were rated on a four-point scale ranging from 0 (never) to 3 (always). In a study by Koekemoer and Mostert (2010), these scales were found to be valid and reliable (parent-work interference,  $\alpha = 0,76$ ; spouse-work interference,  $\alpha = 0,77$ ; domestic-work interference,  $\alpha = 0,82$  and religion/spiritual-work interference,  $\alpha = 0,74$ ) when compared to the guideline of  $\alpha > 0,70$  (Nunnally & Bernstein, 1994).

*Ill health.* Items were adapted from the General Health Questionnaire (GHQ, Goldberg & Williams, 1988) to measure physical ill health (3 items, e.g. “Have you been getting any pains in your head?”), anxiety (3 items, e.g. “Have you lost sleep due to worrying?”) and depression (3 items, e.g. “Have you felt that life is entirely hopeless?”). Items were rated on a four-point scale ranging from 1 (not at all) to 4 (much more than usual). Reliable alpha coefficients were found in previous studies, ranging between 0,81 and 0,85 for physical ill health, between 0,84 and 0,90 for anxiety and between 0,79 and 0,92 for depression (Koekemoer & Mostert, 2010; Mostert, 2009; Oldfield & Mostert, 2007).

*Exhaustion.* The OLBI was originally developed to measure both exhaustion and disengagement. However, for the purpose of this study, only items that measure exhaustion were used. The seven items of the exhaustion sub-scale are generic and refer to general feelings of emptiness, overtaxing from work, a strong need to rest and a state of physical exhaustion, for example, “There are days that I feel too tired to go to work” and “I usually feel worn out and tired after my

work” These items were rated on a four-point scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Reliable Cronbach alphas were found for this scale in previous studies, ranging between 0,74 and 0,85 (Demerouti et al., 2001; Demerouti & Bakker, 2007; Demerouti, Bakker, & Mostert, 2010).

*Cognitive weariness.* Items were adapted from Van Horn, Taris, Schaufeli, and Schreurs’ (2004) scale of work concentration to measure cognitive weariness, (5-items, e.g. “I make errors when I am at work”). Items were rated on a seven-point scale ranging from 0 (never) to 6 (every day). Van Horn et al. (2004) and Koekemoer and Mostert (2010) found the scale to be reliable with alphas ranging between 0,87 and 0,92.

*Life satisfaction.* Items were taken from the Life Satisfaction Scale developed by Diener, Emmons, Larsen, and Griffin (1985) to measure life satisfaction (4 items, e.g. “I am satisfied with my life in general”). Items were rated on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The Cronbach alpha coefficients found in previous studies for this scale ranges between 0,88 and 0,91 and can therefore be regarded as reliable according to the guideline of Nunnally and Bernstein (1994) (Diener et al., 1985; Koekemoer & Mostert, 2010).

*A biographical questionnaire* was also administered. In the biographical questionnaire, personal characteristics were measured, including gender, years of marriage, age, education, race, work hours, number of children, age of children and domestic help.

### **Preliminary analysis: Construct validity of the measuring instruments**

The construct validity of the measuring instruments was tested using structural equation modelling in AMOS. The results supported a six-factor model for home characteristics (home pressure, home cognitive demands, emotional home demands, home autonomy, home support and home developmental possibilities): (CMIN/DF= 2,16, IFI=0,92, TLI = 0,89 and CFI = 0,91; RMSEA = 0,08; LO90= 0,06; HI=0,09); a four-factor model for nonwork-work interference (parent, domestic, religion and spouse): (CMIN/DF=2,04; IFI = 0,97, TLI = 0,96 and CFI =0,97 ; RMSEA = 0,07; LO90=0,05; HI90=0,09); a three-factor model for health (physical health, anxiety and depression): (CMIN/DF=1,11; IFI = 1,00 TLI = 1,00 and CFI = 1,00; RMSEA = 0,02; LO90=0,00; HI90=0,06); exhaustion a one-factor model (CMIN/DF= 3,71, IFI= 0,90, TLI = 0,85 and CFI = 0,90; RMSEA = 0,12; LO90= 0,08; HI=0,15); a one-factor model for

cognitive weariness: (CMIN/DF=5,95; IFI = 0,98, TLI = 0,94 and CFI = 0,98; RMSEA = 0,16; LO90=0,08; HI90=0,25); and a one-factor model for life satisfaction (CMIN/DF=4,72; IFI = 0,98, TLI = 0,95 and CFI = 0,98; RMSEA = 0,13; LO90=0,06; HI90=0,23); and

### **Statistical analysis**

Apart from employing AMOS in the preliminary analysis of the measuring instruments, further statistical analysis was carried out using the PASW (Predictive Analytic Software) statistics program (SPSS Inc., 2009). The PASW is easier to use compared to other statistical programs; it also addresses the entire analytic process comprehensively, from planning, to data collection to analysis, reporting and deployment (SPSS Inc., 2009). As part of the preliminary analyses, confirmatory factor analyses (CFA) were carried out in order to establish the construct validity of the various instruments used in this study. Cronbach alpha coefficients were used to assess the reliability of the instruments, referring to the guideline of Nunally and Bernstein (1994) where  $\alpha > 0,70$  is known to be acceptable. Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics were also used to analyse the data. The descriptive statistics was used to provide an overall, coherent and straightforward picture of a large amount of data (Struwig, & Stead, 2001).

The Pearson and Spearman product-moment correlations were used to determine the extent to which variation in one continuous variable explains the variation in another continuous variable (Struwig, & Stead, 2001). In this study, the relationship between home characteristics, nonwork-work interference, and well-being was determined.

Multiple regression analyses involve a group of statistical procedures that tests the relationship between multiple independent variables and one dependent variable. These procedures can also be utilised with a view to determine the level to which the independent variables predict a dependent variable (Struwig & Stead, 2001). In this study, multiple regression analyses were performed in order to determine the home characteristics and nonwork-work interference which predict the well-being of dual earner parents. Previous researchers found that age (Clark, Koch, & Hill, 2004; Dex & Bond, 2005) and gender have an influence on ultimate balance and well-being (Anderson & Leslie, 1991; Clark et al., 2005; Hughes & Galinsky, 1994; Tausig & Fenwick, 2001). Therefore, age and gender were also included for the regression analyses. More specifically, four multiple regression analysis were conducted by means of the enter method.

Demographical variables (age and gender) were entered in the first step; in the second step, home demands (i.e. home pressure, emotional home demands and cognitive home demands) were entered; home resources (i.e. autonomy, home support and developmental possibilities) were entered in the third step, and nonwork-work interferences (i.e. parent-work, spouse-work, domestic-work and religion/spiritual-work interferences) were entered in the fourth and final step of the regression analyses. All these variables were entered to determine which of these predict physical ill health, anxiety, depression and exhaustion respectively (dependent variables). In the four multiple regressions reported, the dependent variable is the respective well-being outcomes and the independent variables are the demographic variables (age and gender) home characteristics and nonwork-work interference.

## RESULTS

### Descriptive statistics

Following the preliminary analysis (i.e. the construct validity of the instruments), the descriptive statistics and Cronbach alpha coefficients of the measuring instruments were estimated and are displayed in Table 2 below.

Table 2

*Descriptive statistics and Cronbach alpha coefficients of the home characteristics, Nonwork→work interference dimensions and well-being outcomes (N = 207)*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
Home pressure	1,71	0,72	0,17	-0,65	0,76
Cognitive home demands	1,82	0,76	0,08	-1,13	0,80
Emotional home demands	1,29	0,70	1,03	0,74	0,83
Social support	1,84	0,73	-0,32	-0,50	0,82
Autonomy	1,90	0,71	-0,30	-0,41	0,76
Development possibilities	1,37	0,72	0,42	-0,17	0,82
Parent-work interference	0,75	0,66	1,43	1,91	0,76
Spouse-work interference	0,60	0,74	1,64	2,39	0,87
Domestic-work interference	0,75	0,73	1,41	1,96	0,85
Religion/spirituality-work interference	0,34	0,61	2,56	7,48	0,86
Anxiety	1,94	0,84	0,81	-0,23	0,89

Table 2 continued

*Descriptive statistics and Cronbach alpha coefficients of the home characteristics, Nonwork→work interference dimensions and well-being outcomes (N = 207)*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
Depression	1,67	0,80	1,25	0,83	0,90
Physical ill health	2,05	0,77	0,76	0,03	0,80
Exhaustion	2,59	0,61	0,05	-0,22	0,81
Cognitive weariness	2,08	1,40	0,69	-0,14	0,88
Life satisfaction	4,90	1,41	-0,73	0,02	0,89

Inspection of Table 2 shows that acceptable Cronbach alpha coefficients were obtained for all the scales, since all the alpha coefficients were higher than the guideline of  $\alpha > 0,70$  (Nunnally & Bernstein, 1994). Although all scales were reliable, some scales were not normally distributed (i.e. cognitive home demands; emotional home demands; all the nonwork-work dimensions and depression). According to Finch, West, and MacKinnon (1997) moderate normal distribution levels are set for skewness at 3 and for kurtosis at 7, which correspond with the results of this scale.

Following the descriptive statistics, product-moment correlation analyses were used to determine the relationship between home characteristics, nonwork-work interference and the well-being outcomes. The results of the analysis follow in Table 3.

Table 3

*Product-moment correlations for Home characteristics, Nonwork→work interference dimensions and well-being outcomes*

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Home pressure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Cognitive home demands	0,72** <sup>+</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Emotional home demands	0,52** <sup>+</sup>	0,53** <sup>+</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Social support	-0,09	-0,06	-0,25 <sup>+</sup>	-	-	-	-	-	-	-	-	-	-	-	-
5. Autonomy	-0,28 <sup>+</sup>	-0,26 <sup>+</sup>	-0,28 <sup>+</sup>	0,43* <sup>+</sup>	-	-	-	-	-	-	-	-	-	-	-
6. Developmental possibilities	-0,32* <sup>+</sup>	-0,23 <sup>+</sup>	-0,32* <sup>+</sup>	0,48* <sup>+</sup>	0,51** <sup>+</sup>	-	-	-	-	-	-	-	-	-	-
7. Parent-work interference	0,44* <sup>+</sup>	0,41* <sup>+</sup>	0,42* <sup>+</sup>	-0,17	-0,35* <sup>+</sup>	-0,36* <sup>+</sup>	-	-	-	-	-	-	-	-	-
8. Spouse-work interference	0,48* <sup>+</sup>	0,40* <sup>+</sup>	0,54** <sup>+</sup>	-0,28 <sup>+</sup>	-0,39* <sup>+</sup>	-0,33* <sup>+</sup>	0,56** <sup>+</sup>	-	-	-	-	-	-	-	-
9. Domestic-work interference	0,51** <sup>+</sup>	0,54** <sup>+</sup>	0,43* <sup>+</sup>	-0,06	-0,34* <sup>+</sup>	-0,30* <sup>+</sup>	0,58** <sup>+</sup>	0,53**	-	-	-	-	-	-	-
10. Religion/Spirituality-work interference	0,28 <sup>+</sup>	0,16	0,22 <sup>+</sup>	-0,03	0,01	-0,02	0,40* <sup>+</sup>	0,46*	0,31*	-	-	-	-	-	-
11. Physical ill health	0,44* <sup>+</sup>	0,38* <sup>+</sup>	0,50** <sup>+</sup>	-0,11	-0,33* <sup>+</sup>	-0,20 <sup>+</sup>	0,36* <sup>+</sup>	0,41* <sup>+</sup>	0,35* <sup>+</sup>	0,20 <sup>+</sup>	-	-	-	-	-
12. Anxiety	0,40* <sup>+</sup>	0,39* <sup>+</sup>	0,50** <sup>+</sup>	-0,15 <sup>+</sup>	-0,31* <sup>+</sup>	-0,18 <sup>+</sup>	0,37*	0,45* <sup>+</sup>	0,30* <sup>+</sup>	0,21 <sup>+</sup>	0,81** <sup>+</sup>	-	-	-	-
13. Depression	0,33* <sup>+</sup>	0,34* <sup>+</sup>	0,49* <sup>+</sup>	-0,24 <sup>+</sup>	-0,30* <sup>+</sup>	-0,27 <sup>+</sup>	0,30* <sup>+</sup>	0,42* <sup>+</sup>	0,27 <sup>+</sup>	0,22 <sup>+</sup>	0,61** <sup>+</sup>	0,64** <sup>+</sup>	-	-	-
14. Exhaustion	0,47* <sup>+</sup>	0,35* <sup>+</sup>	0,43* <sup>+</sup>	-0,20 <sup>+</sup>	-0,34* <sup>+</sup>	-0,43* <sup>+</sup>	0,40* <sup>+</sup>	0,34* <sup>+</sup>	0,32* <sup>+</sup>	0,22 <sup>+</sup>	0,57** <sup>+</sup>	0,52** <sup>+</sup>	0,46* <sup>+</sup>	-	-
15. Cognitive weariness	0,36* <sup>+</sup>	0,29 <sup>+</sup>	0,31* <sup>+</sup>	-0,11	-0,34* <sup>+</sup>	-0,29 <sup>+</sup>	0,32* <sup>+</sup>	0,29 <sup>+</sup>	0,27 <sup>+</sup>	0,13	0,51** <sup>+</sup>	0,60** <sup>+</sup>	0,50** <sup>+</sup>	0,55** <sup>+</sup>	-
16. Life satisfaction	-0,26 <sup>+</sup>	-0,15	-0,43* <sup>+</sup>	0,36*	0,33* <sup>+</sup>	-0,31* <sup>+</sup>	-0,18	-0,47* <sup>+</sup>	-0,20 <sup>+</sup>	-0,20 <sup>+</sup>	-0,42* <sup>+</sup>	-0,52** <sup>+</sup>	-0,59** <sup>+</sup>	-0,42* <sup>+</sup>	-0,45* <sup>+</sup>

<sup>+</sup> Statistically significant ( $p < 0,05$ )

\* Correlation is practically significant  $r > 0,30$  (medium effect); \*\* Correlation is practically significant  $r > 0,50$  (large effect)

As can be seen in Table 3, physical ill health was practically and statistically significantly associated with home pressure with medium effect (0,44), emotional home demands with large effect (0,50), cognitive home demands with medium effect (0,38), autonomy with medium effect (-0,31), parent, spouse and domestic-work interference with medium effect (0,36; 0,41; 0,35).

Anxiety was practically and statistically significantly associated with home pressure with medium effect (0,40); emotional home demands with large effect (0,50), cognitive home demands with medium effect (0,39), autonomy with medium effect (-0,31), parent, spouse and domestic-work interference with medium effect (0,37; 0,45; 0,30).

Depression was practically and statistically significantly associated with home pressure with medium effect (0,33), cognitive home demands with medium effect (0,34) and emotional home demands with medium effect (0,49), autonomy with medium effect (-0,30), parent and spouse-work interference with medium effect (0,30; 0,42).

As can also be seen in Table 3, exhaustion was practically and statistically significantly related to home pressure with medium effect (0,47); cognitive and emotional home demands with medium effect (0,34; 0,43), autonomy with medium effect (-0,34) and development possibilities with medium effect (-0,43), parent, spouse and domestic-work interference with medium effect (0,40; 0,34; 0,32).

Cognitive weariness was practically and statistically significantly associated with home pressure with medium effect (0,36), emotional demands with medium effect (0,31), autonomy with medium effect (-0,34), and parent-work interference with medium effect (0,32).

Finally, life satisfaction was practically and statistically significantly associated with levels of emotional home demands with medium effect (-0,43), development possibilities with medium effect (0,31) and spouse-work interference with medium effect (-0,47).

Following the correlations, four multiple regression analyses were done in order to determine the significant predictors of the well-being outcomes. The first multiple regression analysis reported below in Table 4 indicates the results of physical ill health as dependent variable.

Table 4

*Multiple Regression Analysis with Physical Ill Health as Dependent Variable*

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
1	(Constant)	2,15	0,35		6,09	0,00	4,01	0,20	0,04	0,04
	Gender	0,17	0,15	0,08	1,18	0,24				
	Age	-0,21	0,09	-0,16	-2,26	0,03*				
2	(Constant)	1,22	0,32		3,81	0,00	17,52	0,56	0,31	0,27
	Gender	0,05	0,13	0,02	0,38	0,71				
	Age	-0,11	0,08	-0,09	-1,39	0,17				
	Home pressure	0,16	0,10	-0,15	1,65	0,10				
	Emotional demands	0,40	0,08	0,36	4,83	0,00*				
	Cognitive demands	0,10	0,09	0,10	1,07	0,29				
3	(Constant)	1,54	0,38		4,03	0,00	12,61	0,59	0,34	0,03
	Gender	0,08	0,13	0,04	0,67	0,51				
	Age	-0,11	0,08	-0,09	-1,43	0,16				
	Home pressure	0,15	0,10	0,14	1,52	0,13				
	Emotional home demands	0,38	0,08	0,35	4,62	0,00*				
	Cognitive home demands	0,06	0,09	0,06	0,69	0,49				
	Social support	0,06	0,08	0,05	0,72	0,47				
	Autonomy	-0,26	0,08	-0,23	-3,15	0,00*				
	Developmental possibilities	0,07	0,08	0,07	0,86	0,39				
4	(Constant)	1,57	0,39		4,01	0,00	9,82	0,62	0,38	0,04
	Gender	0,13	0,13	0,06	0,99	0,32				
	Age	-0,11	0,08	-0,09	-1,47	0,14				
	Home pressure	0,08	0,10	0,07	0,76	0,45				
	Emotional home demands	0,24	0,09	0,21	2,51	0,01*				
	Cognitive home demands	0,07	0,09	0,07	0,72	0,47				
	Social support	0,05	0,08	0,05	0,63	0,53				
	Autonomy	-0,22	0,08	-0,20	-2,70	0,01*				
	Developmental possibilities	0,04	0,08	0,04	0,52	0,61				

\* Statistically significant ( $p < 0,05$ )

Table 4 continued

*Multiple Regression Analysis with Physical Ill Health as Dependent Variable*

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Parent-work interference	0,16	0,12	0,14	1,38	0,17				
Spouse-work interference	0,13	0,11	0,12	1,17	0,24				
Domestic-work interference	-0,05	0,11	-0,04	-0,42	0,67				
Religion/spiritual work-interference	0,10	0,12	0,08	0,84	0,40				

\* Statistically significant ( $p < 0,05$ )

Table 4 summarises the regression analysis with control variables (i.e. age and gender), home characteristics (i.e. home demands and resources) and nonwork-work interference (i.e. parent work, spouse work, domestic work and religion work -interference) as predictors of physical ill health. Entry of the control variables in the first step of the regression analysis produced a statistical model ( $F_{(2,199)} = 4,01$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,04$ ), accounting for approximately 4% of the variance. More specifically, it seems that in this first step of the regression analyses, age ( $\beta = -0,16$ ;  $t = -2,26$ ;  $p \leq 0,05$ ) is a significant predictor of physical ill health. When home demands were entered in the second step of the regression analysis, a statistically significant model was produced ( $F_{(5,196)} = 17,52$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,27$ ) which explained 31% of the total variance. More specifically, it seems that emotional home demands ( $\beta = 0,36$ ;  $t = 4,83$ ;  $p \leq 0,05$ ) is a significant predictor. When home resources were entered in the third step of the regression analysis, a statistically significant model was also produced ( $F_{(8,193)} = 12,61$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,03$ ), accounting for approximately 34% of the variance. It seems that in this step emotional home demands ( $\beta = 0,35$ ;  $t = 4,62$ ;  $p \leq 0,05$ ) and lack of autonomy ( $\beta = -0,23$ ;  $t = -3,15$ ;  $p \leq 0,05$ ) were significant predictors. When the four nonwork-work interference subscales were entered in the fourth and final step of the regression analysis, a statistically significant model was produced ( $F_{(12,189)} = 9,82$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,04$ ), accounting for approximately 38% of the variance. More specifically, it seems that emotional home demands ( $\beta = 0,21$ ;  $t = 2,51$ ;  $p \leq 0,05$ ) and lack of autonomy ( $\beta = -0,20$ ;  $t = -2,70$ ;  $p \leq 0,05$ ) are significant predictors of physical ill health.

Following the multiple regression analysis of physical ill health as dependent variable, a multiple regression analysis of anxiety as dependent variable was done; this and is reported in Table 5 below.

Table 5  
*Multiple Regression Analysis with Anxiety as Dependent Variable*

Model		Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
1	(Constant)	2,26	0,39		5,86	0,00	3,08	0,17	0,03	0,03
	Gender	0,07	0,16	0,03	0,44	0,66				
	Age	-0,23	0,10	-0,16	-2,29	0,02*				
2	(Constant)	1,23	0,34		3,59	0,00	19,89	0,58	0,34	0,31
	Gender	-0,07	0,14	-0,03	-0,55	0,58				
	Age	-0,11	0,09	-0,08	-1,28	0,20				
	Home pressure	0,01	0,11	0,01	0,09	0,93				
	Emotional home demands	0,53	0,09	0,44	6,09	0,00*				
	Cognitive home demands	0,20	0,10	0,18	2,01	0,05*				
3	(Constant)	1,60	0,41		3,87	0,00	13,59	0,60	0,36	0,02
	Gender	-0,05	0,14	-0,02	-0,36	0,72				
	Age	-0,11	0,09	-0,08	-1,34	0,18				
	Home pressure	0,01	0,11	0,00	0,04	0,97				
	Emotional home demands	0,51	0,09	0,43	5,72	0,00*				
	Cognitive home demands	0,17	0,10	0,15	1,73	0,09				
	Social support	-0,01	0,08	-0,01	-0,11	0,92				
	Autonomy	-0,22	0,09	-0,18	-2,48	0,01*				
	Developmental possibilities	0,08	0,09	0,07	0,89	0,37				
4	(Constant)	1,53	0,42		3,66	0,00	11,05	0,64	0,41	0,05
	Gender	0,03	0,13	0,01	0,20	0,84				
	Age	-0,11	0,08	-0,08	-1,27	0,21				
	Home pressure	-0,09	0,11	-0,08	-0,85	0,40				
	Emotional home demands	0,31	0,10	0,26	3,34	0,00*				
	Cognitive home demands	0,18	0,10	0,16	1,77	0,08				
	Social support	-0,00	0,08	0,00	-0,01	1,00				
	Autonomy	-0,16	0,09	-0,13	-1,79	0,08				
	Developmental possibilities	0,04	0,09	0,03	0,43	0,67				

\* Statistically significant ( $p < 0,05$ )

Table 5 continued

*Multiple Regression Analysis with Anxiety as Dependent Variable*

Model	Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Parent-work interference	0,15	0,12	0,12	1,23	0,22				
Spouse-work interference	0,28	0,12	0,25	2,37	0,02*				
Domestic-work interference	-0,06	0,11	-0,05	-0,55	0,59				
Religion/spiritual work-interference	0,04	0,13	0,03	0,30	0,77				

\* Statistically significant ( $p < 0,05$ )

Table 5 summarises the regression analysis with control variables, (i.e. age and gender), home characteristics (i.e. home demands and resources), and nonwork-work interference (i.e. parent work, spouse work, domestic work and religion work -interference) as predictors of anxiety. Entry of the control variables in the first step of the regression analysis produced a statistical model ( $F_{(2,199)} = 3,08$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,03$ ), accounting for approximately 3% of the variance. More specifically, it seems that age ( $\beta = -0,16$ ;  $t = -2,29$ ;  $p \leq 0,05$ ) is a significant predictor of anxiety. When home demands were entered in the second step of the regression analysis, a statistically significant model was produced ( $F_{(5,196)} = 19,89$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,31$ ), which explained 34% of the total variance. More specifically, it seems that emotional home demands ( $\beta = 0,44$ ;  $t = 6,09$ ;  $p \leq 0,05$ ) and cognitive home demands ( $\beta = 0,18$ ;  $t = 2,01$ ;  $p \leq 0,05$ ) are significant predictors of anxiety. When home resources were entered in the third step of the regression analysis, a statistically significant model was produced ( $F_{(8,193)} = 13,59$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,02$ ), accounting for approximately 36% of the variance. It seems that emotional home demands ( $\beta = 0,43$ ;  $t = 5,72$ ;  $p \leq 0,05$ ) and lack of autonomy ( $\beta = -0,18$ ;  $t = 0,01$ ;  $p \leq 0,05$ ) predict anxiety. When nonwork-work interference was entered during the final step of the regression analysis, a statistically significant model was produced ( $F_{(12,189)} = 11,05$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,05$ ), accounting for approximately 41% of the variance. More specifically, it seems that emotional home demands ( $\beta = 0,26$ ;  $t = 3,14$ ;  $p \leq 0,05$ ) and spouse-work interference ( $\beta = 0,25$ ;  $t = 2,37$ ;  $p \leq 0,05$ ) are predictors of anxiety.

Following the multiple regression analysis of anxiety as dependent variable, a multiple regression analysis with depression as dependent variable was done; this is reported in Table 6 below.

Table 6  
*Multiple Regression Analysis with Depression as Dependent Variable*

Model		Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>P</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
1	(Constant)	1,92	0,36		5,29	0,00	5,08	0,22	0,05	0,05
	Gender	0,14	0,15	0,07	0,92	0,36				
	Age	-0,26	0,10	-0,20	-2,78	0,01*				
2	(Constant)	1,04	0,33		3,18	0,00	19,30	0,57	0,33	0,28
	Gender	0,02	0,13	0,01	0,16	0,87				
	Age	-0,16	0,08	-0,12	-1,91	0,06				
	Home pressure	-0,04	0,10	-0,04	-0,40	0,69				
	Emotional home demands	0,55	0,08	0,49	6,62	0,00*				
	Cognitive home demands	0,13	0,09	0,13	1,42	0,16				
3	(Constant)	1,58	0,39		4,03	0,00	13,39	0,60	0,36	0,03
	Gender	0,01	0,13	0,00	0,06	0,95				
	Age	-0,17	0,08	-0,13	-2,11	0,04*				
	Home pressure	-0,05	0,10	-0,04	-0,45	0,66				
	Emotional home demands	0,51	0,09	0,44	5,94	0,00*				
	Cognitive home demands	0,13	0,09	0,13	1,40	0,16				
	Social support	-0,13	0,08	-0,12	-1,64	0,10				
	Autonomy	-0,12	0,08	-0,10	-1,41	0,16				
	Developmental possibilities	0,04	0,08	0,03	0,42	0,68				
4	(Constant)	1,65	0,41		4,06	0,00	9,80	0,62	0,38	0,02
	Gender	0,05	0,13	0,03	0,40	0,69				
	Age	-0,16	0,08	-0,12	-1,98	0,05				
	Home pressure	-0,11	0,10	-0,10	-1,06	0,29				
	Emotional home demands	0,38	0,10	0,34	3,95	0,00*				
	Cognitive home demands	0,15	0,10	0,14	1,54	0,13				
	Social support	-0,13	0,09	-0,11	-1,58	0,12				
	Autonomy	-0,10	0,09	-0,09	-1,17	0,24				

\* Statistically significant ( $p < 0,05$ )

Table 6 continued

*Multiple Regression Analysis with Depression as Dependent Variable*

Model		Unstandardised coefficients	Standardised coefficients	<i>t</i>	<i>P</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
	Developmental possibilities	-0,02	0,09	-0,01	-0,18	0,86			
	Parent-work interference	-0,12	0,12	-0,10	-0,95	0,34			
	Spouse-work interference	0,19	0,12	0,17	1,62	0,11			
	Domestic-work interference	0,03	0,11	0,02	0,24	0,81			
	Religion/spiritual work-interference	0,15	0,12	0,11	1,17	0,24			

\* Statistically significant ( $p < 0,05$ )

Table 6 summarises the regression analysis with control variables (i.e. age and gender), home characteristics (i.e. home demands and resources) and nonwork-work interference (i.e. parent work, spouse work, domestic work and religion work -interference) as predictors of depression. Entry of the control variables in the first of the regression analysis produced a statistical model ( $F_{(2,199)} = 5,08$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,05$ ), accounting for approximately 4,9% of the variance. More specifically, it seems that age ( $\beta = -0,20$ ;  $t = -2,78$ ;  $p \leq 0,05$ ) is a significant predictor of depression. When home demands were entered in the second step of the regression analysis, a statistically significant model was produced ( $F_{(5,196)} = 19,30$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,28$ ), which explained 33% of the total variance. More specifically, it seems that emotional home demands ( $\beta = 0,49$ ;  $t = 6,62$ ;  $p \leq 0,05$ ) is a significant predictor of depression. When home resources were entered in the third step of the regression analysis, a statistically significant model was produced ( $F_{(8,193)} = 13,39$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,03$ ), accounting for approximately 35,7% of the variance. It seems that age ( $\beta = -0,13$ ;  $t = -2,11$ ;  $p \leq 0,05$ ) and emotional home demands ( $\beta = 0,44$ ;  $t = 5,94$ ;  $p \leq 0,05$ ) predict depression. When nonwork-work interference was entered in the fourth and final step of the regression analysis, a statistically significant model was produced ( $F_{(12,189)} = 9,80$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,03$ ), accounting for approximately 38% of the variance. More specifically, it seems that age ( $\beta = -0,12$ ;  $t = -1,98$ ;  $p \leq 0,05$ ) and emotional home demands ( $\beta = 0,34$ ;  $t = 3,95$ ;  $p \leq 0,05$ ) are predictors of depression.

Following the multiple regression analysis of depression as dependent variable, a multiple regression analysis of exhaustion as dependent variable was done; this is reported in Table 7 below.

Table 7

*Multiple Regression Analysis with Exhaustion as Dependent Variable*

Model		Unstandardised coefficients		Standardised coefficients	<i>t</i>	<i>P</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
		B	SE	Beta						
1	(Constant)	2,03	0,28		7,35	0,00	4,28	0,20	0,04	0,04
	Gender	0,32	0,11	0,20	2,80	0,01*				
	Age	-0,02	0,07	-0,02	-0,21	0,83				
2	(Constant)	1,38	0,26		5,37	0,00	15,71	0,54	0,29	0,25
	Gender	0,25	0,10	0,16	2,47	0,01*				
	Age	0,04	0,06	0,04	0,58	0,56				
	Home pressure	0,32	0,08	0,38	4,12	0,00*				
	Emotional home demands	0,24	0,07	0,27	3,61	0,00*				
	Cognitive home demands	-0,09	0,07	-0,12	-1,27	0,20				
3	(Constant)	2,05	0,30		6,85	0,00	13,29	0,60	0,36	0,07
	Gender	0,21	0,10	0,13	2,14	0,03*				
	Age	0,01	0,06	0,01	0,14	0,89				
	Home pressure	0,25	0,08	0,30	3,25	0,00*				
	Emotional home demands	0,19	0,07	0,22	3,00	0,00*				
	Cognitive home demands	-0,08	0,07	-0,10	-1,16	0,25				
	Social support	0,05	0,06	0,06	0,82	0,42				
	Autonomy	-0,12	0,06	-0,14	-1,86	0,06				
	Developmental possibilities	-0,19	0,06	-0,22	-2,96	0,00*				
4	(Constant)	2,02	0,31		6,55	0,00	9,70	0,62	0,38	0,03
	Gender	0,23	0,10	0,14	2,30	0,02*				
	Age	0,00	0,06	0,00	0,05	0,96				
	Home pressure	0,22	0,08	0,26	2,75	0,01*				
	Emotional home demands	0,12	0,07	0,14	1,64	0,10				
	Cognitive home demands	-0,09	0,07	-0,11	-1,18	0,24				
	Social support	0,04	0,06	0,05	0,73	0,47				
	Autonomy	-0,10	0,07	-0,11	-1,46	0,15				

\* Statistically significant ( $p < 0,05$ )

Table 7 continued

*Multiple Regression Analysis with Exhaustion as Dependent Variable*

Model	Unstandardised coefficients	Standardised coefficients	<i>t</i>	<i>P</i>	<i>F</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Developmental possibilities	-0,19	0,07	-0,22	-2,87	0,00*			
Parent-work interference	0,19	0,09	0,21	2,09	0,04*			
Spouse-work interference	0,04	0,09	0,05	0,46	0,65			
Domestic-work interference	-0,05	0,08	-0,07	-0,64	0,52			
Religion/spiritual-work interference	0,00	0,09	0,00	0,03	0,98			

\* Statistically significant ( $p < 0,05$ )

Table 7 summarises the regression analysis with control variables (i.e. age and gender), home characteristics (i.e. home demands and resources) and nonwork-work interference (i.e. parent-work, spouse-work, domestic-work and religion-work interference) as predictors of exhaustion. Entry of the control variables in the first step of the regression analysis produced a statistical model ( $F_{(2,199)} = 4,28$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,04$ ), accounting for approximately 4% of the variance. More specifically, it seems that gender ( $\beta = 0,20$ ;  $t = 2,80$ ;  $p \leq 0,05$ ) is a significant predictor of exhaustion. When home demands were entered in the second step of the regression analysis, a statistically significant model was produced ( $F_{(5,196)} = 15,71$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,25$ ), which explained 29% of the total variance. More specifically, it seems that gender ( $\beta = 0,16$ ;  $t = 2,47$ ;  $p \leq 0,05$ ); home pressure ( $\beta = 0,38$ ;  $t = 4,12$ ;  $p \leq 0,05$ ) and emotional home demands ( $\beta = 0,27$ ;  $t = 3,61$ ;  $p \leq 0,05$ ) are significant predictors of exhaustion. When home resources were entered in the third step of the regression analysis, a statistically significant model was produced ( $F_{(8,193)} = 13,29$ ;  $p = 0,00$ ;  $\Delta R^2 = 0,07$ ), accounting for approximately 36% of the variance. It seems that gender ( $\beta = 0,13$ ;  $t = 2,14$ ;  $p \leq 0,05$ ); home pressure ( $\beta = 0,30$ ;  $t = 3,25$ ;  $p \leq 0,05$ ); emotional home demands ( $\beta = 0,22$ ;  $t = 3,00$ ;  $p \leq 0,05$ ) and lack of development possibilities ( $\beta = -0,22$ ;  $t = -2,96$ ;  $p \leq 0,05$ ) predict exhaustion. When nonwork-work interference was entered as the fourth and final step of the regression analysis, a statistically significant model was produced ( $F_{(12,189)} = 9,70$ ;  $p \leq 0,05$ ;  $\Delta R^2 = 0,03$ ), accounting for approximately 38% of the variance. More specifically, it seems that gender ( $\beta = 0,14$ ;  $t = 2,30$ ;  $p \leq 0,05$ ); home pressure ( $\beta = 0,26$ ;  $t = 2,75$ ;  $p \leq 0,05$ ); lack of

developmental possibilities ( $\beta = -0,22$ ;  $t = -2,87$ ;  $p \leq 0,05$ ) and parent-work interference ( $\beta = 0,21$ ;  $t = 2,09$ ;  $p \leq 0,05$ ) are predictors of exhaustion.

## DISCUSSION

Dual earner parents have received a great deal of research attention over the last couple of years (De Ruijter & Van der Lippe, 2007; Franks, Schurink, & Fourie, 2006; Hammer et al., 2005; Keene & Reynolds, 2005; Moen & Roehling, 2005). This may be attributed to the ever-increasingly complex roles they have to play, which make the interference between nonwork domains and work roles all the more apparent (Bond et al., 2003; Hammer, Allen, & Grigsby, 1997). Being part of a dual earner couple with children can be very stressful and challenging; this is because individuals are constantly struggling to balance their nonwork and work roles (Weigel, et al., 1995). Unfortunately, these challenges may decrease well-being among dual earner parents (Frone, Russel, & Cooper, 1992; Gilbert, Holahan, & Manning, 1981). Therefore, the objectives of this study were to establish the relationship between home characteristics, nonwork-work interference and well-being among dual earner parents, and to investigate whether home characteristics and nonwork-work interference are predictors for well-being outcomes for dual earner parents.

Regarding the first objective of this study, the results indicated positive relationships between the home demands (home pressure, cognitive and emotional demands) and parent-work, spouse-work and domestic-work interference. If dual earner parents experience more home demands such as strenuous emotional pressures at home, they will experience an increase in interferences between their nonwork roles and work roles. They might feel emotionally exhausted when going to work or they might continuously worry about their children or spouses during work, causing their minds to stray.

When home resources are also considered, a number of negative relationships between autonomy and parent, spouse and domestic-work interference exist, indicating that the less autonomy (less time and opportunities to make decisions at or around the home) dual earner parents experience, the more interference between their nonwork role exist (parent, spouse and domestic). When an individual has little time or freedom to participate in certain responsibilities, decisions, promises or general parent activities at home, this state of affairs

may cause their minds to wander or may cause persistent worry at work. These, of course, will cause the nonwork role to interfere severely with the work role.

Regarding the relationships of nonwork-work interference and physical ill health, the results indicated a positive relationship between spouse-work, parent-work and domestic-work interference and physical ill health. Therefore, if an individual were to experience a nonwork role (parent, spouse or domestic) interfering with the work role, this may cause an increase in physical ill health.

Another positive relationship that emerged from the results is the relationship between parent-work, spouse-work and domestic-work interference and anxiety. Parent-work, spouse-work and domestic-work interference, in turn, have a positive relationship with exhaustion, according to the results. Therefore, the more parent duties, spouse activities and participation in domestic activities interfere with the work role, the more anxiety and exhaustion an individual will experience. This notion supports the findings of Chandola et al. (2004) who found that there is a significant relationship between nonwork-work interference and well-being outcomes such as anxiety and other poor health outcomes. This state of affairs may be due to the fact that an individual who experiences such interferences might become anxious when realising that he or she is falling behind on deadlines.

In turn, the results also indicated a positive relationship between parent-work and spouse-work interference and depression. Spouse-work interference indicated a negative relationship with life satisfaction. If an individual's spousal duties interfere more and more with the work role, such individual's satisfaction with life will decrease. This finding is in line with other researchers who found that high levels of nonwork-work interference can create a decrease in life satisfaction (Frone et al., 1992; Gutek, Kossek & Ozeki, 1998; Judge et al., 1994; Magnus et al., 2005). This situation can perhaps be ascribed to stress and tension arising from guilt towards work and the spouse as well as pressure in terms of deadlines and concentration problems at work.

Parent-work interference indicated a positive relationship with cognitive weariness. Koekemoer and Mostert (2010) found the same relationship between parent-work interference and cognitive weariness in their study. A parent's mind can stress and ponder on

work that's left behind; and similarly parents tend to worry about their children for much of the time (Robinson & Godbey, 1997).

In addition to the relationships found in this study, the second objective was to investigate which home characteristics and/or nonwork interference predict the well-being outcomes of dual earner parents. The results indicated that emotional home demands predict physical ill health. If an individual becomes emotionally drained having to deal with extensive demands at home, that individual's health will physically decrease. When the home is filled with emotional situations or confrontations, this situation can escalate within an individual and cause the person to feel stressed up and very drained, causing that individual to become or feel ill. Lack of autonomy also seems to predict physical ill health. It therefore appears that if an individual struggles with time and control necessary to make decisions at home, he or she can experience physical ill health. According to Sonnentag and Fritz (2007), an individual experiencing some form of control at home gets the urge of wanting to be in control, because of feelings of competence. This control will then, in turn, decrease well-being problems.

Regarding anxiety, the results indicate that spouse-work interference predict anxiety. This means that if the spouse role interferes with the work role, anxiety may follow. Bagger, Li, and Gutek (2008) explain this notion by stating that a high level of family-work interference may leave individuals with fewer resources to deal with responsibilities at work, thus creating tension and stress. Wang (2006) summarises this state of affairs aptly by stating that individuals who work with many family responsibilities are at risk of experiencing symptoms of anxiety. The results also indicate that emotional home demands predict anxiety. This implies that if an individual experiences emotional pressure or feelings of stress at home, that individual will soon become anxious in the process of trying to cope with all these emotionally charged situations.

In addition, emotional home demands also appear to predict depression. Rotondo, Carlson and Kincaid (2002) state that home demands cause formidable stress, which can give rise to many health risks and other adverse outcomes. When individuals struggle to cope with all the emotionally charged situations at home, this might effectively lead to such individuals becoming depressed. Frone et al. (1992) state that family demands have a significant effect on overall depression. Choi (2008) elaborates on this point by explaining that high and negative levels of emotions inhibit performance and this causes formidable life stress.

When exhaustion is considered, the results indicated that gender plays a significant role in the prediction of exhaustion. This situation can be ascribed to the fact that women and men experience workload, demands and resources differently, and also react to stressors differently (Friedman & Greenhaus, 2000; Larson, Richards, & Perry-Jenkins, 1994; Wayne, Grzywacz, Carlson, & Kacmar, 2007). Men and women may, furthermore, feel burdened by their perceptions of role changes and role duties (Pleck, 1993; Wayne & Cordeiro, 2003). Therefore, if one becomes part of a dual earner parent team, many roles change and more serious parenting is required (Moen & Roehling, 2005) which can leave one stressed out or exhausted (Robinson & Godbey, 1997).

Home pressure also appeared to predict exhaustion. Geurts et al. (2005) found that home pressure can lead to feelings of exhaustion, a finding that corresponds with findings by Jansen et al. (2004) who noted that insufficient resources or recovery from pressures may lead to exhaustion or complaints about health.

Another significant predictor of exhaustion found in this study is a lack of developmental possibilities. This means that if individuals receive no opportunity to develop themselves, such individuals may become exhausted. This finding can perhaps be explained by the notion that parents need to develop themselves at home in order for them to feel that they are moving forward in terms of their parenting skills, domestic skills, spousal relationships or even with regard to their own strengths, talents and abilities. If they do not feel that this development is real, they may feel stressed out, which leads to exhaustion. Bakker and Geurts (2004) state that development possibilities increase an individual's drive to reach positive outcomes in terms of certain tasks. If an individual therefore experiences fewer development possibilities, that drive will decrease – and this may cause parents to be negatively orientated and such negativity may, in turn, lead to exhaustion.

Parent-work interference also predicts exhaustion according to the results. The more the parent role interferes with the work role, the more likely it is that exhaustion will be the consequence. These findings make sense, because parents may have many family duties to fulfil (i.e. driving their children around, taking care of their children's health and homework, and nurturing them). Parents can therefore become exhausted because of these extensive daily parent-related responsibilities. This finding is in line with findings by previous researchers, which indicated that nonwork-work interference can lead to exhaustion (Allen, et

al., 2000; Leiter & Durup, 1996; Small & Riley, 1990). According to Sonnentag and Frese (2003), if an individual struggles to reach work objectives because of too much strain on his or her mental capacity, exhaustion will be the outcome. Because parents worry about their children, they tend to be at greater risk of being stressed out than couples without children (Robinson & Godbey, 1997).

In summary, it is clear that dual earner parents participate in various different roles, and are therefore susceptible to many demanding and challenging tasks. These home demands can lead to nonwork-work interference, especially without the necessary resources needed to cope. In particular, these consequential demands, according to the present study, are home pressure, cognitive and emotional home demands and regarding the resources. One demand stood out in particular; that was lack of autonomy. The above demands seem to have an effect on nonwork-work interferences (parent, spouse and domestic). The findings relating to the prediction of the well-being outcomes within this study have proven to be very valuable. By means of the newly developed instrument of Koekemoer et al. (2010), it was possible to distinguish between different kinds of interferences (spouse-work; parent-work; domestic-work and religion/spiritual-work interferences) and to show how each significantly predicted various well-being outcomes. This study specifically found that spouse-work interference seems to predict anxiety whereas parent-work interference appears to predict exhaustion. As noted above, dual earner parents can experience anxiety or exhaustion because they have multiple spouse and parent-related activities they need to attend to every day.

Although this study provided insightful results, certain limitations need to be mentioned. The first limitation is the use of a cross-sectional design, which meant that causal relationships could not be determined among the variables. This implies that no tangible decisions can be made regarding cause-and-effect relationships. However, determining the relationships and predictions did prove to be sufficient in this study. The second limitation is the use of self-reported questionnaires. This type of measurement may create problems such as individuals not understanding certain questions and “method-variance” or “nuisance”. In addition, the small sample size ( $N=207$ ) can also be regarded as a limitation. Larger samples might lead to more reliable or precise answers. According to Struwig and Stead (2001), however, sample sizes of 150-200 can still provide acceptable reflection of the population. Another limitation was that the nonwork-work interference scale (entailing all the different dimensions) proved within the results to show high skewness and kurtosis. According to Finch, West, and

MacKinnon (1997), moderate normal distribution levels are set for skewness at 3, and for kurtosis at 7, which correspond with the results of this scale. This indicates that although there is some skewness and kurtosis, the distribution is still reasonable for further analysis.

Although various limitations have therefore been identified in this study, promising results were nonetheless obtained, and a number of recommendations can be made based on these results. In the first instance, it is of vital importance for organisations to understand the relationship that certain demands and nonwork-work interference might have on employees' well-being. Certain well-being outcomes can create negative results within the organisation as a whole. Also, a number of health issues can lead to absenteeism, higher turnover intentions, cognitive difficulties and a decline in productivity (Johnson & Indvik, 1997). For this reason, it is crucial for organisations to invest in appropriate interventions with a view to help and assist the employee who has to juggle a vast range of demands or experiences possible imbalances.

From the results of this study, it is clear that individuals need to be equipped to cope with emotional demands and pressures at home as and also to deal with spouse-work interference effectively. Interventions or workshops could be presented with a view to train and educate employees on how to deal with emotional issues and pressures at home. Certain interventions that could possibly be effective would be to suggest that couples spend more time together and talk to one another in order to rid themselves of feelings of stress and worries. Also, couples would benefit by learning how to support each other effectively.

Employees could also find support within the organisation. Organisation could, for example, present stress management support sessions each week to allow employees to talk about the stress they might be experiencing regarding time management and balancing different roles. Human resource management should care about each individual and set certain things in place (i.e. open door policy; appropriate leave etc.) to assist individuals to cope well with their circumstances at home and work. Furthermore, the human resource practitioner should always be available for employees to talk to about well-being problems arising from home pressure, emotional pressures, lack of autonomy etc.

The results also indicated that development possibilities can predict exhaustion. Individuals should be equipped with the necessary time and energy to be able to use their time towards

developing themselves and having the opportunities to make certain decisions about their lives. Development possibilities can help individuals cope with a demanding workload (Bakker & Geurts, 2004), which can in turn minimize exhaustion. Development programmes at organisations can also help individuals to develop themselves personally and to find their strengths and weaknesses.

Time management is another factor that keeps individuals from developing themselves or concentrating and so on, and therefore time management workshops may be presented to equip employees with the necessary skills and knowledge in order to use their time effectively towards balancing different roles. A further suggestion is that, given the multiple and complex responsibilities of work and parenting, employees could be allowed to work extra time when it is most convenient for them. Suitable childcare arrangements can also be an intervention plan by the organisation. Dual earner parents could, furthermore, consider hiring someone to help them achieve some of their parenting activities – such as driving children around or helping with homework.

Regarding recommendations for future research, longitudinal designs can be used in future studies. This will help the researcher to obtain more concrete findings in terms of causal relationships from which more specific recommendations could be made. Such an approach would also provide valuable information regarding how variables or relationships among variables might change over time. In addition to investigating only relationships and predictions among variables for one individual within a dual earner couple, cross-over effects between wives and husbands can also be investigated in order to explore how certain predicaments affect the family members either the same way or differently. According to Westman (2001), the cross-over effect is a process in which certain behaviours or feelings (stress, strain) that are experienced by employees lead to the same behaviours or feelings (stress or strain) experienced by their spouses at home.

Lastly, it is recommended that positive antecedents and consequences of different roles and interferences should also be investigated. Recently, a number of researchers have made to call or indicated the need to also consider the notion that interferences are not always negative; instead, they can sometimes prove to be valuable and concurrently, it has been suggested that having different roles can at times have its advantages (Thoits, 1986). According to Marks and MacDermid (1996) and Barnett and Hyde (2001), this argument is

closely related to perspectives such as “role balance” or “expansionist”. These perspectives imply that energy is plentiful and flexible, and that having multiple roles is related to higher self esteem and enhanced well-being.

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## **CHAPTER 3**

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

Chapter three presents a number of conclusions regarding the literature review and the empirical study with reference to the specific objectives of the study. The limitations of the study are outlined, followed by recommendations for the organisation in light of the research findings. Finally, suggestions and recommendations are made for future research.

#### **3.1 CONCLUSIONS**

##### **3.1.1 Conclusions regarding the literature review**

A literature search was conducted where various articles and other sources were consulted in order to arrive at a comprehensive and extensive understanding of the complexities inherent to the research problem. From the literature, it became evident that an increasing number of people are finding themselves in the position of being dual earner parents (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005). Dual earner parents have multiple roles with which to contend in their nonwork and work domains; furthermore, these roles make multiple demands on parents and require certain resources. This state of affairs constitutes a significant challenge to dual earner parents who need to balance all these multiple demands (Duxbury & Higgins, 1991; Parasuraman, Greenhaus, & Granrose, 1992). Nonwork-work interference could be the result of these dual earner parents were to fail to reach such a balance (Boyer, Carr, Mosley, & Carson, 2007). Nonwork-work interference is described by Koekemoer and Mostert (2010) as the process in which participation in nonwork roles interferes with the participation of the work role. Koekemoer and Mostert (2010) further explain that within the nonwork-work domain, an individual might experience parent-work, spouse-work, domestic-work and religion/spiritual-work interference. Married parents who experience a high level of home demands and, consequently, a high level of nonwork-work interference, are at risk of experiencing certain well-being problems such as anxiety, depression, physical ill health, exhaustion, cognitive weariness, and an ultimate decline in life satisfaction (Judge, Boudreau, & Bretz, 1994; Magnus & Viswesvaran, 2005).

### **3.1.2 Conclusions regarding the empirical study**

The first specific objective of this study was to determine the relationships between home characteristics, nonwork-work interference and well-being amongst dual earner parents. The results indicated that there is a positive relationship between home characteristics and nonwork-work interference and between nonwork-work interference and well-being. More specifically, the results indicated that home pressure, and cognitive home and emotional home demands, have a positive relationship with parent-work; spouse-work and domestic-work interference. This is in line with research by Demerouti, Bakker and Voydanoff (2010) who found that family demands are strongly connected with nonwork-work interference since these demands require a great deal of effort, consequently decreasing resources available for functioning in another domain.

Autonomy and development possibilities, in turn, have a negative relationship with parent-work; spouse-work and domestic-work interference. The less autonomy and development possibilities an individual experiences, the more the parent, spouse and domestic roles will interfere with the work role. Resources (autonomy and development possibilities) can help a person to cope with a very demanding workload (Bakker & Geurts, 2004). If a person thus lacks the necessary opportunities for making decisions and developing themselves, he or she could struggle to cope with the extreme workload – which could give rise to interference.

These interferences can, in turn, affect certain well-being outcomes. Janssen, Peeters, De Jonge, Houkes and Tummers (2004) explain that if recovery from unbalanced pressures within the family and work domain is poor, this may lead to certain health complaints. Parent-work interference, more specifically, has a positive relationship with exhaustion and cognitive weariness, whereas spouse-work interference has a positive relationship with anxiety, physical ill health and depression. Spouse-work interference also has a negative relationship with life satisfaction. The more the spouse role interferes with the work role, the less life satisfaction an individual will experience. Domestic-work interference, in turn, has a positive relationship with physical ill health, exhaustion and anxiety, which means that attending to domestic activities can become very exhausting or may cause anxiety among dual earner parents. These results of the relationship between the well-being outcomes are in accordance with findings by previous researchers who found that interferences between the nonwork and work domain have a strong relationship with stress-related health issues such as

anxiety (Allen, Herst, Bruck, & Sutton, 2000), emotional exhaustion (Leiter & Durup, 2006) and depression (Frone, Russel, & Cooper, 1992). Kinnunen, Feldt, Geurts, and Pulkkinen (2006) add that nonwork-work interference is related to physical health and other health-related behaviour of employees.

The second specific objective of the study was to determine whether home characteristics and nonwork-work interference are predictors of well-being outcomes among dual earner parents. Regarding this objective, the results indicated that gender, parent-work interference, home pressure and lack of development possibilities seem to predict exhaustion. This finding concurs with research by Janssen, et al. (2004) who found that an individual who does not have sufficient resources for dealing with pressures at home may become exhausted or may complain about his or her health in general. Additionally, spouse-work interference predicts anxiety. This is in line with the findings of Wang (2006) who states that individuals who face many family responsibilities such as being a spouse or parent may also have to deal with symptoms of anxiety; family responsibilities could thus lead to anxiety. Results also indicated that emotional home demands predict physical ill health, anxiety and depression. Home demands cause stress in individuals, which in turn leads to various health risks and other unfavourable outcomes (Rotondo, Carlson, & Kincaid, 2002). Lack of autonomy predicts physical ill health. Individuals experiencing a measure of control at home, on the other hand, tend to feel more competent and this, in turn, decreases well-being problems (Sonnetag & Fritz, 2007). Regarding the nonwork-work dimensions, spouse-work interference predicts anxiety and parent-work interference predicts exhaustion. According to Robinson and Godbey (1997) since parents do worry about their children from time to time it causes them to be at greater risk of becoming exhausted than couples without children.

Although this study has yielded insightful answers, there are still a number of limitations that need consideration.

### **3.2 LIMITATIONS**

The first limitation of this study was the use of a cross-sectional design. According to Bryman and Bell (2003), this type of design allows one to collect data on more than one case at a single point in time, after which the data is examined to determine patterns of association.

The disadvantage of this design, on the other hand, is that it does not allow for the measurement of changing variable values over time. No concrete decisions can therefore be made regarding the cause-and-effect relationship among the variables as would be the case with a longitudinal design (Struwig & Stead, 2001). The cross-sectional design did, however, prove to be sufficient within this study since insightful conclusions could still be drawn in answer to the empirical objectives of the study.

The second limitation was the use of self-report questionnaires. One shortcoming of self-reported questionnaires is that due to the variety of educational levels and language of the participants, it is likely that a number of participants might not understand the questions; other problems might arise such as the phenomenon referred to as “method-variance” or “nuisance”. According to Chang, Van Witteloostuijn, and Van Eden (2010), common method variance creates a false internal consistency; that is, an apparent correlation among variables developed by their common source (the survey booklet). Self-report data can therefore create false correlations if respondents have a tendency to provide consistent answers to survey questions that are otherwise not related (Chang, et al., 2010).

The small sample size ( $N=207$ ) is another limitation worth mentioning. A larger sample size might have yielded more comprehensive answers to the research questions at hand. Due to the small sample size used in this study, different demographic cultural groups were not included in this sample in a balanced manner. A more representative sample in terms of culture/language groups might have contributed to the generalisation of the findings of this study (Casper, Bordeaux, Eby, Lockwood, & Lambert, 2007; Demerouti, Bakker, & Mostert, 2010; Demerouti, et al., 2010; Hill, Allen, Jacob, Bair, Bikhozi, Van Langeveld, Martinengo, Parker, & Walker, 2007). However, Struwig and Stead (2001) state that small sample sizes of 150-200 can still provide an acceptable reflection of the population.

Another limitation is that the nonwork-work interference scale (entailing all the different dimensions) appeared to be skew within the results (skewness ranged between 0,05 and 2,57 and kurtosis between 0,02 and 7,48). Moderate normal distribution levels are set for skewness at 3 and for kurtosis at 7, which correspond with the results of this scale (Finch, West, & McKinnon, 1997). Therefore, although this scale entails some skewness and kurtosis, the distribution is still acceptable for further analysis.

The last limitation is that data was collected at nursery schools only, which means that only parents with young children completed the questionnaire. It might have been more insightful to investigate this dilemma across a range of parents with older children too. Even though Roxburgh (2002) states that younger children tend to cause more pressures in terms of time for parents, parents with older children might also experience many challenging demands which could give rise to certain interferences and well-being outcomes.

Regardless of all these limitations, the present study has significant implications for organisations and for future research.

### **3.3 RECOMMENDATIONS**

Based on the results obtained for the research questions, the following recommendations can be made.

#### **3.3.1 Recommendations for the organisation**

Bailyn and Harrington (2004) state that work can be arranged in such a way that employees can deal with family demands efficiently and still be productive in their work. It is therefore of the utmost importance for organisations to invest in certain interventions with a view to assist employees to cope with certain demands or imbalances they might experience. More resources need therefore to be invested by the organisation in order to assist employees with all the demands they might experience.

Dual earner parents struggle with emotional demands and pressures at home (Arendell, 2000; Peeters, Montgomery, Bakker, & Schaufeli, 2005; Robinson & Godbey, 1997). Frone et al. (1992) note state that family demands have a significant effect on the overall tendency towards depression. It is therefore recommended that organisations should invest in appropriate interventions or workshops aimed at training and educating employees on how to deal effectively with emotional issues or pressures at home. For example, interventions could encourage employees to discuss problems or stress-related issues either within the organisation (comforting groups, human resource practitioner) or with their spouse. Supporting each other should be one of the topics discussed within these workshops. Strain

management support sessions could be held on a weekly basis to allow employees to talk about stress they might experience regarding balancing different roles as well as time management. It is vital within any organisation to have the human resource practitioner available for employees so that they can talk to him/her about well-being problems arising due to home pressure, emotional pressures, lack of autonomy and the like.

Another recommendation is that organisations need to have development programmes in place so that parents and spouses can be able to grow and develop. Dual earner parents need time to develop themselves and to be able to make decisions about their lives. The necessary time and energy therefore need to be invested to assist with these programmes. In these programmes, individuals may then have sufficient opportunities for making decisions about their lives and to reflect on where they are heading. These programmes should teach employees how to develop themselves at home by showing them how to find their strengths, desires and weaknesses; they could, for example, complete certain online questionnaires or questionnaires provided by the organisation. Their spouses could also receive one to complete. When these employees find their strengths and weaknesses, they also need to be taught how to develop themselves based on these; for example, they could be shown more appropriate ways of engaging with certain things that happened during the day and which they need to discuss with their spouses.

Role-playing is also a method that can help an employee to realise his/her ability to handle certain situations, which can be helpful in the process of developing themselves. Such programmes can help individuals to find their strengths, weaknesses and desires in life; as Bakker and Geurts (2004) state, development possibilities increase an individual's motivation to achieve positive outcomes within certain tasks. Organisations striving to aid employees towards developing themselves will experience the benefit of more productive and satisfied employees.

Team-building or individual exercises are also methods that can help employees to build on their strengths and minimise their weaknesses. Organisations can invest in certain interventions that create enough time and resources for individuals to develop themselves at home. Organisations could, for example, limit overtime which could give employees the necessary time to devote to these family resources. Employees can also be allowed to work

extra time when it is most convenient in order to get work out of their system when they reach home. They could then focus their minds on how to develop themselves.

Organisations need to implement motivation programmes which could help employees to develop self-confidence, and self- or professional efficacy. These programmes can, in turn, provide employees with more autonomy (Choi, 2008). Organisations should, however, not only concentrate on helping employees to have more control at work, but also at home. According to Choi (2008), increasing control does not guarantee employees' well-being. It is thus necessary for employees to also develop confidence in their strengths (Schaubroeck & Merritt, 1997). According to Schaubroeck and Merritt (1997) and Choi (2008), employees who have confidence in their strengths and abilities to cope with certain situations can use high levels of self control to reduce certain health issues. Organisations therefore need to concentrate on things like giving praise, incentives, bonuses, rewards, and trust by giving employees more control over certain decisions and so forth.

Other interventions in which organisations could invest are suitable child-care arrangements or parental leave. This can create the necessary time and comfort for parents who need to focus on work. Such a strategy could, in turn, minimise parent-work interference. According to the results of this study, if one were to minimise parent-work interference, exhaustion would also be reduced.

### **3.3.2 Recommendations for future research**

The first recommendation that can be made for future research is the use of longitudinal designs (Casper et al., 2007; Demerouti, 2004; see e.g. Demerouti, Bakker & Bulters, 2004; see e.g. Hammer et al., 2005). According to Struwig and Stead (2001), longitudinal designs allow data to be collected more than once over a period of time. This type of design yields very useful information about how variables or relationships among variables change over time (Struwig & Stead, 2001). This will help the researcher to make more specific inferences on how the how information about variables or relationships among variables change over time.

The second recommendation can be to investigate the cross-over and spillover effects of work-nonwork interference between wives and husbands (e.g. Hammer et al., 2005). It could prove valuable to investigate how the same predicaments affect a family differently. The

crossover effect is a process by means of which various behaviours or feelings that are experienced by employees lead to the same behaviours experienced by their spouses at home (Westman, 2002). According to Geurts and Demerouti (2003), negative experiences at work can be transferred to and inhibit family life, and vice versa. Positive experiences in the non-work domain, on the other hand, can positively influence the functioning at work (Sonnentag, 2003). Negative experiences may crossover to colleagues (Demerouti, Bakker, & Schaufeli, 2005) and to partners (Westman, 2002). Also, according to Westman (2002), investigating positive crossover may enhance theoretical thinking and make practical contributions to the crossover literature. The spillover effect, in turn, entails that negative or positive feelings are transferred to the spouse or colleagues. According to Demerouti, Bakker, and Schaufeli (2005), spillover is one of the reasons why parents become exhausted or dissatisfied with life. These authors arrived at insightful conclusions in their study that can be explored further. For example, they found that both positive and negative experiences can be transferred – not only between the nonwork domain and work domain, but also between individuals (Demerouti, Bakker, & Schaufeli, 2005). It would therefore be valuable to research crossover and spillover effects among dual earner parents.

As mentioned in the literature on crossover effects, the positive side of work-nonwork is also important. It is therefore recommended that the positive antecedents and consequences of different roles and interferences need to be investigated. Interferences are not always negative and can sometimes prove to be valuable. Also, having different roles can sometimes hold advantages (Thoits, 1986). Barnett and Hyde (2001) add that multiple roles provide the individual with a broader frame of reference. This offers opportunities for relieving work problems with family roles, and vice versa (Schouteten & De Witte, 2005). Multiple roles offer multiple opportunities to experience success and to develop a sense of self-confidence or a sense of self-efficacy (Barnett & Hyde, 2001).

Closely related to cross-over studies are studies which focus on different perspectives regarding the research phenomenon, which can also be recommended for future research (e.g. from children, spouses, and observers) (e.g. Demerouti, Bakker, & Schaufeli, 2005). According to Demerouti et al. (2010), their study was strengthened by incorporating information from spouses and co-workers into their analysis. It would therefore prove to be insightful to explore this phenomenon further in future research.

Other recommendations include increasing the sample size. A more thorough investigation of the phenomenon will then be possible. Also, a more representative sample of different culture or demographic groups could be included with a view to arrive at more general findings (Demerouti, et al., 2010). In order to avoid common method variance, it could also perhaps be helpful to use interviewer-administered questionnaires (Struwig & Stead, 2001). It is also important that future studies should include parents who have older children within the study sample.

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