

# Work-family enrichment and psychological health

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**Orientation:** This study examines the beneficial aspects of the interface between work and family and its relationships with psychological health from a positive psychology perspective.

**Research purpose:** The objective of this study was to investigate whether work-family enrichment helps to predict psychological health, specifically increased subjective well-being and decreased feelings of emotional exhaustion and depression.

**Motivation for the study:** The burgeoning literature on the work-family interface contains little on the potentially positive benefits of maintaining work and family roles.

**Research approach, design and method:** The authors used a descriptive research design. Employees in two national organisations in the financial retail and logistics industries completed a self-administered survey questionnaire. The authors analysed responses from those who reported both family and work responsibilities ( $N = 160$ ).

**Main findings:** Consistent with previous research, factor analysis revealed two distinct directions of work-family enrichment: from work to family (W2FE) and from family to work (F2WE). Multiple regression analysis showed that F2WE explained a significant proportion of the variance in subjective wellbeing, whilst W2FE explained a significant proportion of the variance in depression and emotional exhaustion.

**Practical/managerial implications:** The findings of this study revealed the individual and organisational benefits of fostering work-family enrichment.

**Contributions/value add:** This study presents empirical evidence for the need to focus on the positive aspects of the work-family interface, provides further support for a positive organisational psychology perspective in organisations and hopefully will encourage further research on interventions in organisations and families.

## Introduction

The economically active population in post-apartheid South Africa is now almost evenly distributed across gender (men comprise 54.0% whilst women comprise 46.0%) (Congress of South African Trade Unions, 2012). The acceptance of traditional, stereotypical gender role responsibilities, with women assuming the care and household roles and men assuming the role of primary breadwinner, has long ceased to be the norm (Commission of Employment Equity, 2010). Therefore, work-family issues are no longer a marginal concern but a lived reality for most South Africans.

Role shifts and intense work pressures in a global economy have increased employee stress. These occurrences have resulted in increased depression and burnout (Mostert, Peeters & Rost, 2011). They may be particularly acute in South Africa, with its diversity of family structures and highly unequal pattern of wealth distribution (Chibba & Luiz, 2011). With work and family as important life domains for most employees, the challenge is for South African employees to integrate these role responsibilities without compromising their health or sense of wellbeing.

## Background to the study

Current research on the interface between work and family still largely ignores the positive benefits that those who experience work and family role responsibilities derive. The focus remains largely on issues related to work-family conflict (Greenhaus & Beutell, 1985) and its negative effects. Nevertheless, there is increasing recognition of the salience of the positive benefits that occur when employees combine several roles (McNall, Nicklin & Masuda, 2010). This recognition is both informed by, and consistent with, a growing interest in positive psychology, positive organisational behaviour and positive organisational scholarship (Shein & Chen, 2011).

Researchers have used the terms positive spillover, facilitation, enhancement and enrichment interchangeably to explain the positive side of the work-family interface. Although using these

terms may have led to some confusion, researchers have argued that they are distinct (Carlson, Kacmar, Wayne & Grzywacz, 2006).

Enhancement (Sieber, 1974) refers to gains in resources and experiences that benefit the employee in several life roles. The term positive spillover (Grzywacz & Marks, 2000), on the other hand, refers to the transfer of positive experiences from one life role to the other. Enrichment refers to the process in which an improvement in the quality of experiences in a role arises because of positive experiences in another (Greenhaus & Powell, 2006). Enrichment builds on positive spillover and enhancement, although the literature indicates that the construct is considerably more complex. For enrichment to occur, it is critical for employees to transfer resource gains from one role to the other and for improved performance to occur in the receiving domain (Greenhaus & Powell, 2006). The primary distinction between enrichment and facilitation (Wayne, Grzywacz, Carlson & Kacmar, 2007) is the unit of functional analysis. Where enrichment focuses on improved performance on the individual level, facilitation focuses on improved performance on a systems level (Carlson *et al.*, 2006).

This study uses the construct of work-family enrichment to reflect the positive work-family interface because it provides the most inclusive conceptualisation of this phenomenon at the individual level of analysis (McNall *et al.*, 2010).

## Research purpose

Given the growing evidence of a link between work-family enrichment (WFE), satisfaction and improved general wellbeing (Carlson *et al.*, 2011), further examination of this relationship is important for the development of positive organisational scholarship in South Africa. Unfortunately, researchers have hardly studied the positive aspects of the work-family interface in South Africa (Mostert *et al.*, 2011).

Researchers have consistently found that work-family enrichment positively influences employee health in areas like improved physical health (see Carlson *et al.*, 2011), improved personal wellbeing (see Kinnunen, Feldt, Geurts, & Pulkkinen, 2006), improved mental health (see Gareis, Barnett, Ertel & Berkman, 2009) and improved sleep quality (see Williams, Franche, Ibrahim, Mustard & Layton, 2006). Researchers have also found that work-family enrichment reduces negative health outcomes like burnout (see Van Steenbergen, Ellemers & Mooijaart, 2007), depression (see Nitzsche, Jung, Pfaff & Driller, 2013) and anxiety (see Grzywacz & Bass, 2003).

This study examines the influence of WFE on three important areas of psychological health: subjective wellbeing, depression and emotional exhaustion. Van der Colff and Rothmann (2009) emphasised that employee mental health issues deserve urgent attention from South African organisations.

This was a prescient call, given that the South African Depression and Anxiety Group (n.d.) now claims that mental health issues exceed physical injuries as the leading causes of workplace absenteeism in South Africa. The World Health Organisation strengthened this assertion. It stated that, by the year 2020, depression will be the second foremost cause of workplace disability globally (following chronic heart disease) and that, by 2030, it will be the largest contributor to disease problems (World Health Organization, 2009). The prevalence of emotional exhaustion (as an occupational disorder) amongst employees is also increasing, possibly because of the high demands associated with a globally competitive economic environment (Rothmann & Cilliers, 2007).

Consistent with a positive approach to psychological health, this paper also considers subjective wellbeing – how people feel and think about their lives. Subjective wellbeing may have important implications for organisational psychology research given the growing awareness of the salience of maintaining a happy, positive workforce (Harter, Schmidt & Keyes, 2003).

## Role theories

There are two perspectives in work-family research. The work-family conflict (WFC) perspective, still the dominant perspective, focuses on the negative effects that arise from combining work and family. It draws on role stress theory (Khan, Wolfe, Quinn, Snoek & Rosenthal, 1964) and the scarcity hypothesis (Goode, 1960). The emerging positive work-family enrichment perspective draws on role accumulation theory (Sieber, 1974) and the enhancement hypothesis (Marks, 1977). From this positive perspective, participation in several roles yields rewards that help outweigh the negative effect of the demands of several roles. Marks (1977) added that people tend to find energy for what they enjoy doing and experience an increase in energy. The prevailing assumption is that WFC and WFE are orthogonal constructs and one should measure each along its own continuum rather than seeing them as being on opposite ends of the same continuum (Carlson *et al.*, 2006; Greenhaus & Powell, 2006).

## The nature of work-family enrichment

Work-family enrichment is bidirectional, from work to family (W2FE) and from family to work (F2WE). One transfers the resources one gains in one role to another. This results in improved quality in the receiving role (Carlson *et al.*, 2006). For example, employees who gain recognition in their jobs for accomplishing challenging work may feel increased self-esteem in their roles as parent and spouse. Employees with children may develop increased levels of patience from their parenting role and improve their working relationships with colleagues and subordinates (Greenhaus & Powell, 2006).

Meta analytical evidence reveals that the two directions of WFE are distinct but can occur simultaneously. Although predictors of W2FE originate primarily in the work domain and predictors of F2WE originate mainly in the family domain,

cross-domain effects have also been established (McNall *et al.*, 2010). For example, family support was a significant predictor of W2FE (Bhargava & Baral, 2009; Karatepe & Bekteshi, 2008). However, these results are not consistent. Aryee, Srinivas & Tan (2005) found that family support had a positive relationship with F2WE and not with W2FE.

Carlson *et al.* (2006) found three dimensions of W2FE (development, affect and capital) and three dimensions of F2WE (development, affect and efficiency). Recent empirical research has yielded mixed evidence about the factorial validity of these dimensions and the trend in current research is to consider only the two directions of work-family enrichment, W2FE and F2WE (cf. Rantanen, Kinnunen, Saija & Tement, 2013).

### Work-family enrichment and psychological health

Researchers have shown that the resources one gains from participating in several roles result in improved physical and mental well-being (Carlson *et al.*, 2011). The mechanisms that lead to these beneficial effects include buffering stress in one role by successes and satisfaction in the other, increased opportunities for social support, several opportunities to experience success and an expanded frame of reference (Barnett & Hyde, 2001).

According to the conservation of resources (COR) theory (Hobfoll, 1989), people seek to acquire and preserve resources. These resources may include conditions (like marital status), personal characteristics (like self-efficacy) and energies (like time) (Lu, 2011). The drain of resources that accompany several role demands are less likely to affect people with greater resources. In addition, they are better able to cope with stress-related variables that negatively influence their wellbeing (McNall *et al.*, 2010; Odle-Dusseau, Britt & Greene-Shortridge, 2012). When one uses COR theory to understand the relationship between WFE and psychological health, it emphasises the dynamism of resources deployment. This is because one role provides resources that assist the person to manage the responsibilities of the other role and improve the quality of the receiving role.

### Research objectives

This study investigates the influence of work-family enrichment, both W2FE and F2WE, on the psychological health outcomes of subjective wellbeing, depression and emotional exhaustion.

### Subjective wellbeing

The conceptualisation of wellbeing has often lacked clarity and researchers have used the concept in varying ways (Mellor *et al.*, 2009). For this study, subjective wellbeing refers to people's appraisals of their lives that comprise several life domains that contribute to a holistic experience of life quality (Cummins, McCabe, Romeo & Gullone, 1994). It is the extent to which people feel positive about themselves in eight

life domains (standard of living, health, achieving in life, relationships, safety, connection to community, spirituality and future security).

To date, the research findings on the relationship between work-family enrichment and wellbeing are mixed. Stephens, Franks and Atienza (1997) reported a positive relationship between both directions of WFE and wellbeing in a sample of 105 American caregivers. In support of these findings, in a later and much larger study of Finnish employees ( $N = 5097$ ), Mauno, Kinnunen and Rantanen (2011) found that both directions of WFE had positive relationships with wellbeing. However, Kinnunen *et al.* (2006) used path analysis on data from a sample of 202 Finnish employees and found that wellbeing had a relationship with W2FE but not with F2WE. On the other hand, Allis and O'Driscoll (2008) found positive relationships between non-work and work enrichment and three forms of wellbeing (family, personal and work).

### Depression

A loss of self-esteem and perceived low prospects of achieving personal life goals characterise depression (Lovibond & Lovibond, 1995). Only a few published studies have examined the positive work-family relationship with depression (cf. Grzywacz & Bass, 2003; Hammer, Cullen, Neal, Sinclair & Shafiro, 2005; Nitzsche *et al.*, 2013; Van Steenbergen *et al.*, 2007). In a longitudinal study, Hammer *et al.* (2005) surveyed 234 American dual-earner couples in two waves. They found that, at Wave 2, the wives in their sample experienced lower levels of depression because of higher W2FE, whilst the husbands in their sample experienced lower levels of depression because of higher F2WE. Hammer *et al.* (2005) also found crossover effects in that husbands' W2FE at Wave 1 had significant relationships with wives' depression at Wave 2 and that wives' F2WE at Wave 1 had relationships with husbands' depression at Wave 2.

Other studies that linked WFE and depression have reported mixed results. Van Steenbergen *et al.* (2007) found a negative relationship between WFE and depression in a sample of 377 Dutch financial services employees. Whilst Grzywacz and Bass (2003) reported that F2WE predicted depression, they found no such relationship between W2FE and depression.

Therefore, the authors examined the predictive relationship between both directions of WFE on depression.

### Emotional exhaustion

Feelings of being emotionally drained, with few resources to call upon, explain emotional exhaustion. It is the core feature and the most noticeable manifestation of burnout (Maslach & Jackson, 1981). Burnout refers to the draining of energy and resources that chronic job stress causes (Montgomery, Panagopolou, De Wildt & Meenks, 2006). There have been varied findings about the relationship between work-family enrichment and emotional exhaustion. For example, Van Steenbergen *et al.* (2007) found that WFE explained a significant proportion of the variance in emotional exhaustion. However,

Kinnunen *et al.* (2006) did not obtain these findings. In a longitudinal study, Innstrand, Langballe, Espnes, Falkum and Aasland (2008) reported significant evidence for a lagged negative effect between WFE at Time 1 and emotional exhaustion at Time 2. On the other hand, Langballe, Innstrand, Aasland and Falkum (2011) found no lagged effects, yet found that WFE at Time 2 predicted emotional exhaustion at Time 2, but only in women.

Based on this background, this study proposes the hypotheses that follow:

- Hypothesis 1: WFE has two distinct directions, W2FE and F2WE.
- Hypothesis 2a: W2FE predicts personal wellbeing.
- Hypothesis 2b: F2WE predicts personal wellbeing.
- Hypothesis 3a: W2FE predicts depression.
- Hypothesis 3b: F2WE predicts depression.
- Hypothesis 4a: W2FE predicts emotional exhaustion.
- Hypothesis 4b: F2WE predicts emotional exhaustion.

## The potential value of this study

This study aims to contribute to the limited South African research on the positive side of the work-family interface by examining the potentially beneficial influence of work-family enrichment on employees' psychological health. The findings of this study should contribute to a more complete understanding of the benefits of engaging in several roles and provide organisations with a basis for designing more effective interventions to accommodate the needs of today's diverse workers (Aryee *et al.*, 2005). Such interventions should assist organisations to improve their competitive advantage by attracting and retaining a committed workforce (Allen, 2001).

The rest of this article describes the method the authors employed to conduct the study. A presentation of the analyses the authors used to test the hypotheses follows. The article concludes with a discussion of the main results and some limitations of the study. It offers implications for managers.

## Research design

### Research approach

This research followed a quantitative approach using a descriptive research design to test the hypotheses (Hair, Babin, Money & Samouel, 2003). It used a cross-sectional self-administered, self-report survey questionnaire to gather data for analysis. The descriptive design and application of the survey method is appropriate to assess interrelationships between variables in the population (Hair *et al.*, 2003).

### Research method

#### Research participants

Authors conducted the study in two national organisations: the financial division of a retail organisation and a logistics company. All participants had a paid work role and at least one family role (like parent, spouse or committed partner).

The authors surveyed only some employees in Cape Town because of time and cost constraints. They distributed 254 questionnaires using a non-probability sampling approach. The participants returned 160 usable questionnaires, yielding a response rate of 63%.

The sample comprised women primarily (82%). Of them, 64% were married or cohabiting and in full-time employment (95%). Of the 68% of the sample that responded to the question about parental status, 48% reported having at least one child and 52% reported having no children. Thirty-three per cent of the sample had at least one dependent (other than their own children) living with them. Forty-nine per cent of the sample did not have any dependents living with them and 16% of the sample had more than two dependents living with them. On average, the participants worked 40 hours a week (SD = 8.161), whilst the average number of hours of childcare and household duties per week was 17.66 (SD = 17.55). Over a third (37%) of the sample reported having paid domestic support. Tenure ranged from one day to 20 years with an average of 4.4 years (SD = 4.452). Twenty-eight per cent of the sample held managerial jobs.

### Measuring instruments

**Work-family enrichment:** The authors used the 18-item work-family enrichment scale, which Carlson *et al.* (2006) developed, to measure both directions (W2FE and F2WE). Carlson *et al.* (2006) reported a coefficient alpha of 0.92 for the full scale. Participants responded to the items on a five-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree).

The authors chose this measure because it incorporates the bidirectional nature of enrichment (Carlson *et al.*, 2006). A sample item in the work-to-family direction is 'My involvement in my work helps me to gain knowledge and this helps me be a better family member'. In the family-to-work direction, a sample item is 'My involvement in my family puts me in a good mood and this helps me be a better employee'.

**Subjective wellbeing:** To measure subjective wellbeing, the authors used seven items of the eight-item Personal Wellbeing Index (International Wellbeing Group, 2006). The measure was designed as the first level deconstruction of satisfaction with life as a whole (Tiliouine, Cummins & Davern, 2006). Each item measures one's level of satisfaction with a distinct life domain on a 10-point scale.

The authors removed one item (the item related to one's satisfaction with security) because of the ambiguity of the domain it measured. Although indices are not amenable to reliability analysis, researchers often calculate them to show the internal consistency between the items. Tiliouine *et al.* (2006) reported a Cronbach's alpha of 0.85 for the scale. An example of an item is 'How satisfied are you with your personal health?'

**Emotional exhaustion:** The authors measured the emotional exhaustion component of burnout using the five-item subscale

of the Maslach Burnout Inventory – General Survey (MBI-GS) scale (Shimmin, 2008). Maslach developed this scale from the original Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981). Whilst Maslach designed the original MBI specifically for human service occupations, the MBI-GS is a measure that assesses burnout amongst employees in all occupations. A sample item is ‘I feel drained when I finish work’.

The authors measured items on a five-point Likert scale (1 = never; 5 = always). High scores indicated emotional exhaustion. The Cronbach alpha value that Nitzsche *et al.* (2013) reported was 0.88.

**Depression:** The authors used the depression subscale, of the Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995), to measure depression. This subscale was appropriate for use in this study because the major DASS scales were developed with non-clinical samples. The depression subscale consisted of 14 items. The authors measured the items on a five-point Likert scale (1 = not at all; 5 = all of the time). Participants had to state the frequency with which they experienced each item over the previous week. An example of an item is ‘I feel that life is meaningless’. Lovibond and Lovibond (1995) reported the internal consistency for this scale as 0.91.

**Control variables:** The authors controlled for several potentially confounding factors when they investigated the relationship between work-family enrichment and psychological health. Personal variables included gender, age, number of children and marital status, whilst the work variables included average hours worked per week, tenure and job level.

### Research procedure

A university ethics committee approved the research protocol for this study. The human resource manager and financial director at the participating organisations gave a written approval for the survey to proceed.

A covering letter explained the anonymous nature of the questionnaire and gave instructions for completion. It emphasised voluntary participation and that participants could withdraw at any point in the study. The researchers administered the paper-based questionnaires directly to the participants at the two organisations and collected the data over a three-week period. The participants returned the completed questionnaires in sealed envelopes.

### Statistical analysis

STATISTICA 11 was the statistical software package that the authors used to help them to compute the data. They coded data before entering them in STATISTICA and were careful to ensure that the data in the database was ‘clean’. They analysed the psychometric properties of the scales using factor and reliability analyses. They calculated descriptive statistics and used correlation analysis and multiple regression analysis to test the hypotheses (Hair *et al.*, 2003).

## Results

### Reliability analysis

The authors calculated Cronbach’s alpha reliability coefficients for each of the final scales and found high levels of internal consistency reliability for each scale (see the diagonal in Table 1). All alpha values were greater than 0.70, an acceptable level of reliability (Hair *et al.*, 2003). All inter-item correlations exceeded 0.30 (range: 0.34 to 0.64), which is acceptable (Hair *et al.*, 2003).

### Exploratory factor analysis

After assessing the suitability of the data for factor analysis (using the Kaiser-Meyer-Olkin test and Bartlett’s test of sphericity), the authors conducted iterative principal axis factor analysis with varimax normalised rotation on each set of measures (Blaikie, 2004). The work family enrichment items loaded onto two distinct factors, with all the W2FE items loading onto one factor and all the F2WE items loading onto a second factor. The authors removed two items because of high cross-loadings. Although the subjective wellbeing items are not strictly appropriate for factor analysis because they form an index, the authors analysed them for comparative purposes. All seven items loaded onto a single factor. The authors analysed the emotional exhaustion and depression items together. They loaded onto two distinct factors.

Further details about these results are available from the authors.

### Correlation analysis

The authors used Pearson’s product-moment correlation analysis (with casewise deletion of missing data) to measure the extent to which WFE had relationships with subjective wellbeing, emotional exhaustion and depression.

Table 1 gives the correlation matrix, which shows values significant at  $p \leq 0.001$ . The authors used Cohen’s (1988) guidelines to assess whether the correlations between variables were weak ( $r = \pm 0.10$  to  $\pm 0.29$ ), moderate ( $r = \pm 0.30$  to  $\pm 0.49$ ) or strong ( $r = \pm 0.50$  to  $\pm 0.1.0$ ).

Subjective wellbeing had a weak positive relationship with W2FE ( $r = 0.260$ ;  $p < 0.001$ ) and had a moderately significant relationship with F2WE ( $r = 0.370$ ;  $p < 0.001$ ). Emotional exhaustion had a strong negative relationship with W2FE ( $r = -0.419$ ;  $p < 0.001$ ) but did not correlate significantly with

**TABLE 1:** Correlation analysis.

Variable	M	SD	1	2	3	4	5
1. W2FE	3.515	0.756	(0.94)	-	-	-	-
2. F2WE	3.786	0.656	0.463*	(0.93)	-	-	-
3. Emotional exhaustion	2.756	0.809	-0.419*	-0.087	(0.84)	-	-
4. Depression	1.335	0.565	-0.500*	-0.254*	0.320*	(0.94)	-
5. Subjective wellbeing	3.638	0.710	0.260*	0.370*	-0.306*	-0.406*	(0.79)

M, mean; SD, standard deviation; W2FE, work-to-family enrichment; F2WE, family-to-work enrichment.

N = 154 after casewise deletion of missing data.

\*,  $p < 0.001$

F2WE ( $r = -0.087$ ;  $p = 0.283$ ). Depression had a strong negative relationship with W2FE ( $r = -0.500$ ;  $p < 0.001$ ) and a weak negative relationship with F2WE ( $r = -0.254$ ;  $p < 0.001$ ).

## Regression analysis

The authors used hierarchical multiple regression analysis to measure the influences that W2FE and F2WE had on the dependent variables (emotional exhaustion, subjective wellbeing and depression), after controlling for the influence of personal variables (gender, age, marital status and number of children) and work variables (hours spent at work per week, tenure and job level). After each analysis, the authors conducted a set of regression diagnostics (including a visual assessment of the normal probability plot of residuals and tests for multicollinearity). No concerns emerged.

Table 2 summarises the results of the hierarchical multiple regression analysis for emotional exhaustion. The authors entered the personal control variables of age, gender, marital status and number of children at step 1. The personal variables explained 7% of the variance in emotional exhaustion ( $p = 0.04$ ). The authors then entered the work control variables at step 2. The work variables explained an additional 6% of the variance in emotional exhaustion ( $\Delta R^2 = 0.062$ ;  $p = 0.03$ ). After the authors entered W2FE and F2WE at step 3, the total variance the model explained as a whole was 28%,  $F(9, 131) = 5.538$ ;  $p < 0.0001$ . The work-family enrichment variables explained an additional 14% of the variance in emotional exhaustion after controlling for the personal and work

variables the authors entered in step 1 and step 2 ( $\Delta R^2 = 0.143$ ;  $p < 0.0001$ ). In the final model, only W2FE was statistically significant ( $\beta = -0.415$ ;  $p < 0.0001$ ).

Table 3 summarises the results of the hierarchical multiple regression analysis for depression. The authors entered the personal control variables of age, gender, marital status and number of children at step 1. They explained 8% of the variance in depression ( $p = 0.03$ ). The authors entered the work control variables at step 2. They explained an additional 8% of the variance in depression ( $\Delta R^2 = 0.078$ ;  $p = 0.01$ ). After entering W2FE and F2WE at step 3, the total variance the model explained as a whole was 38%,  $F(9, 130) = 8.760$ ;  $p < 0.0001$ . The work-family enrichment variables explained an additional 22% of the variance in depression after the authors controlled for the personal and work variables they entered in step 1 and step 2 ( $\Delta R^2 = 0.221$ ;  $p < 0.0001$ ). In the final model, only marital status ( $\beta = -0.2071$ ;  $p = 0.001$ ) and W2FE were statistically significant ( $\beta = -0.503$ ;  $p < 0.0001$ ).

Table 4 summarises the results of the hierarchical multiple regression analysis for subjective wellbeing. The authors entered the personal control variables of age, gender, marital status and number of children at step 1. They explained 6% of the variance in wellbeing, which was not statistically significant ( $p = 0.09$ ). The authors entered the work control variables at step 2. They explained an additional 1% of the variance in wellbeing, which was not statistically significant

**TABLE 2:** Hierarchical regression analysis. The dependent variable is emotional exhaustion.

Variable	$\beta$	SE of $\beta$	b	SE of b	$t(136)$	$p$	$R$	$R^2$	Adjusted $R^2$	$F(4, 136)$	$F(7, 133)$	$F(9, 131)$	Change in $R^2$
<b>Step 1</b>													
Age	-0.079	0.089	-0.008	0.009	-0.885	0.378	-	-	-	-	-	-	-
Gender	0.203	0.085	0.436	0.181	2.403	0.018	-	-	-	-	-	-	-
Marital status	0.131	0.088	0.217	0.146	1.482	0.141	-	-	-	-	-	-	-
Children	-0.081	0.086	-0.061	0.065	-0.939	0.349	-	-	-	-	-	-	-
After Step 1	-	-	-	-	-	0.0423	0.264	0.069	0.042	2.546	-	-	-
<b>Step 2</b>													
Age	-0.181	0.100	-0.018	0.010	-1.81	0.073	-	-	-	-	-	-	-
Gender	0.179	0.087	0.383	0.186	2.06	0.041	-	-	-	-	-	-	-
Marital status	0.129	0.088	0.214	0.147	1.46	0.146	-	-	-	-	-	-	-
Children	-0.097	0.085	-0.073	0.064	-1.14	0.257	-	-	-	-	-	-	-
Hours at work	0.158	0.083	0.015	0.008	1.90	0.059	-	-	-	-	-	-	-
Tenure	0.215	0.097	0.037	0.017	2.22	0.028	-	-	-	-	-	-	-
Job level	-0.013	0.090	-0.022	0.159	-0.14	0.890	-	-	-	-	-	-	-
After Step 2	-	-	-	-	-	0.008	0.364	0.132	0.086	-	2.893	-	0.062
	-	-	-	-	-	0.026	-	-	-	-	-	-	-
<b>Step 3</b>													
Age	-0.155	0.092	-0.015	0.009	-1.67	0.096	-	-	-	-	-	-	-
Gender	0.153	0.080	0.328	0.172	1.91	0.059	-	-	-	-	-	-	-
Marital status	0.068	0.085	0.113	0.142	0.80	0.427	-	-	-	-	-	-	-
Children	-0.038	0.080	-0.029	0.060	-0.48	0.631	-	-	-	-	-	-	-
Hours at work	0.113	0.077	0.011	0.007	1.47	0.144	-	-	-	-	-	-	-
Tenure	0.157	0.090	0.027	0.016	1.74	0.084	-	-	-	-	-	-	-
Job level	0.109	0.087	0.190	0.153	1.25	0.214	-	-	-	-	-	-	-
W2FE	-0.415	0.090	-0.436	0.095	-4.60	0.000	-	-	-	-	-	-	-
F2WE	0.026	0.088	0.032	0.109	0.30	0.766	-	-	-	-	-	-	-
After step 3	-	-	-	-	-	< 0.0001	0.525	0.276	0.226	-	-	5.538	0.143

$\beta$ , standardised beta coefficient, SE, standard error, b, unstandardised beta;  $t$ , obtained  $t$ -test value;  $p$ ,  $p$ -value;  $R$ , multiple correlation;  $R^2$ , proportion variance explained;  $F$ ,  $F$ -value.  $N = 141$  (casewise deletion of missing data)  $p < 0.0001$ .

**TABLE 3:** Hierarchical regression analysis. The dependent variable is depression.

Variable	$\beta$	SE of $\beta$	b	SE of b	$t(136)$	$p$	$R$	$R^2$	Adjusted $R^2$	$F(7, 132)$	Change in $R^2$	$F(9, 130)$
<b>STEP 1</b>												
Gender	0.115	0.085	0.169	0.125	1.35	0.179	-	-	-	-	-	-
Age	0.154	0.089	0.010	0.006	1.72	0.087	-	-	-	-	-	-
Marital status	-0.265	0.088	-0.297	0.099	-3.00	0.003	-	-	-	-	-	-
Children	0.063	0.086	0.032	0.044	0.73	0.468	-	-	-	-	-	-
After step 1	-	-	-	-	-	-	0.278	0.078	0.051	-	-	-
<b>STEP 2</b>												
Gender	0.046	0.087	0.067	0.128	0.52	0.601	-	-	-	-	-	-
Age	0.125	0.100	0.008	0.007	1.25	0.214	-	-	-	-	-	-
Marital status	-0.203	0.087	-0.228	0.098	-2.32	0.022	-	-	-	-	-	-
Children	0.026	0.085	0.013	0.043	0.31	0.756	-	-	-	-	-	-
Hours at work	-0.045	0.082	-0.003	0.005	-0.56	0.580	-	-	-	-	-	-
Tenure	0.201	0.097	0.024	0.011	2.07	0.040	-	-	-	-	-	-
Job level	-0.270	0.089	-0.322	0.106	-3.03	0.003	-	-	-	-	-	-
After step 2	-	-	-	-	-	0.0001	0.395	0.156	0.112	3.4932	0.078	-
	-	-	-	-	-	0.008	-	-	-	-	-	-
<b>STEP 3</b>												
Gender	0.013	0.075	0.020	0.111	0.18	0.860	-	-	-	-	-	-
Age	0.157	0.087	0.010	0.006	1.81	0.072	-	-	-	-	-	-
Marital status	-0.271	0.080	-0.304	0.089	-3.41	0.001	-	-	-	-	-	-
Children	0.094	0.075	0.048	0.038	1.26	0.211	-	-	-	-	-	-
Hours at work	-0.101	0.071	-0.007	0.005	-1.42	0.158	-	-	-	-	-	-
Tenure	0.131	0.085	0.016	0.010	1.55	0.124	-	-	-	-	-	-
Job level	-0.122	0.080	-0.146	0.096	-1.52	0.130	-	-	-	-	-	-
W2FE	-0.503	0.084	-0.356	0.060	-5.98	0.000	-	-	-	-	-	-
F2WE	0.006	0.082	0.005	0.069	0.07	0.941	-	-	-	-	-	-
After step 3	-	-	-	-	-	0.0001	0.614	0.378	0.334	-	0.221	8.760

$\beta$ , standardised beta coefficient, SE, standard error, b, unstandardised beta;  $t$ , obtained  $t$ -test value;  $p$ ,  $p$ -value;  $R$ , multiple correlation;  $R^2$ , proportion variance explained;  $F$ ,  $F$ -value.  
 $N = 140$  (casewise deletion of missing data)  
 $p < 0.0001$ .

**TABLE 4:** Hierarchical regression analysis. The dependent variable is subjective wellbeing.

Variable	$\beta$	SE of $\beta$	b	SE of b	$t(136)$	$p$	$R$	$R^2$	Adjusted $R^2$	$F(4, 136)$	$F(7, 133)$	$F(9, 131)$	Change in $R^2$
<b>STEP 1</b>													
Gender	0.075	0.085	0.145	0.165	0.88	0.381	-	-	-	-	-	-	-
Age	-0.003	0.091	-0.000	0.008	-0.04	0.969	-	-	-	-	-	-	-
Marital status	0.227	0.089	0.343	0.135	2.54	0.012	-	-	-	-	-	-	-
Children	-0.060	0.087	-0.041	0.059	-0.69	0.491	-	-	-	-	-	-	-
After step 1	-	-	-	-	-	0.099	0.235	0.055	0.027	1.990	-	-	-
<b>STEP 2</b>													
Gender	0.097	0.090	0.188	0.174	1.08	0.282	-	-	-	-	-	-	-
Age	0.040	0.104	0.004	0.009	0.38	0.702	-	-	-	-	-	-	-
Marital status	0.215	0.092	0.325	0.139	2.34	0.021	-	-	-	-	-	-	-
Children	-0.047	0.088	-0.032	0.060	-0.54	0.593	-	-	-	-	-	-	-
Hours at work	-0.056	0.086	-0.005	0.007	-0.65	0.514	-	-	-	-	-	-	-
Tenure	-0.120	0.101	-0.019	0.016	-1.19	0.235	-	-	-	-	-	-	-
Job level	0.060	0.094	0.095	0.148	0.64	0.523	-	-	-	-	-	-	-
After step 2	-	-	-	-	-	0.201	0.264	0.070	0.021	-	1.424	-	0.014
	-	-	-	-	-	0.560	-	-	-	-	-	-	-
<b>STEP 3</b>													
Gender	0.095	0.085	0.184	0.164	1.118	0.266	-	-	-	-	-	-	-
Age	0.025	0.098	0.002	0.009	0.250	0.803	-	-	-	-	-	-	-
Marital status	0.159	0.091	0.240	0.137	1.757	0.081	-	-	-	-	-	-	-
Children	-0.047	0.084	-0.032	0.057	-0.562	0.575	-	-	-	-	-	-	-
Hours at work	-0.015	0.081	-0.001	0.007	-0.183	0.855	-	-	-	-	-	-	-
Tenure	-0.088	0.095	-0.014	0.015	-0.919	0.360	-	-	-	-	-	-	-
Job level	0.007	0.092	0.011	0.145	0.077	0.938	-	-	-	-	-	-	-
W2FE	0.112	0.095	0.108	0.091	1.188	0.237	-	-	-	-	-	-	-
F2WE	0.298	0.092	0.338	0.104	3.234	0.002	-	-	-	-	-	-	-
After step 3	-	-	-	-	-	0.0001	0.438	0.192	0.136	-	-	3.452	0.122

$\beta$ , standardised beta coefficient, SE, standard error, b, unstandardised beta;  $t$ , obtained  $t$ -test value;  $p$ ,  $p$ -value;  $R$ , multiple correlation;  $R^2$ , proportion variance explained;  $F$ ,  $F$ -value.  
 $N = 141$  (casewise deletion of missing data)  
 $p < 0.0001$ .

( $\Delta R^2 = 0.014$ ;  $p = 0.56$ ). After the authors entered W2FE and F2WE at step 3, the total variance the model explained as a whole was 19%,  $F(9, 131) = 3.452$ ;  $p < 0.001$ . The work-family enrichment variables explained an additional 12% of the variance in wellbeing after the authors controlled for the personal and work variables they entered at step 1 and step 2 ( $\Delta R^2 = 0.122$ ;  $p = 0.0001$ ). In the final model, only F2WE was statistically significant ( $\beta = 0.298$ ;  $p = 0.002$ ).

## Discussion

### Outline of the results

This study contributes to the research on the positive interface between work and family. It shows that work-family enrichment is bidirectional and that each direction has a unique relationship with the psychological health outcomes of subjective wellbeing, depression and emotional exhaustion.

### Directionality of work-family enrichment

Consistent with past research and meta-analyses on WFE, the exploratory factor analysis showed the bidirectional nature of WFE and confirmed Hypothesis 1. This finding suggests that work provides resource gains that improve functioning and quality of life in the family domain (work-to-family enrichment) and vice versa. Resource gains from a work role (like friendships with co-workers or cognitive stimulation from one's work) may give workers a sense of fulfilment and, in turn, improve their experiences in their family roles (the receiving domain). Similarly, the resources workers gain through participation in their family role (like multitasking or positive feelings associated with spending time with their children) may improve their productivity at work.

In this study, participants reported higher levels of F2WE than W2FE. A possible reason for this is that workers may derive more transferable resource gains from their family role than from their work role. This finding is consistent with past research (Carlson *et al.*, 2006) and highlights how important it is that organisations promote family-friendly workplace cultures.

### The relationship between work-family enrichment and psychological health

**Subjective wellbeing:** Contrary to the authors' expectations, the results of the multiple regression analysis showed no support for Hypothesis 2a (that W2FE predicts subjective wellbeing). This finding may be context specific. It could suggest that the work domain does not offer environments that positively affect family experiences in a way that results in a greater sense of personal wellbeing in the life domains of personal relationships, safety, community belonging and spirituality. The multiple regression analysis showed that F2WE significantly predicted subjective wellbeing and confirmed Hypothesis 2b. This finding shows that workers, who are able to draw on positive resource gains from their family role to improve the quality of life in their work role, will tend to experience a greater sense of subjective wellbeing. The influence of F2WE on wellbeing is in line with

Siebert's (1974) role accumulation theory. Siebert (1974) argued that participating in several roles is beneficial because the rewards people derive from the accumulated roles outweigh the negative effects of maintaining the responsibilities of several roles.

**Depression:** As the authors mentioned earlier, there is scant empirical research on the relationship between WFE and depression. To their knowledge, this is the only study that has investigated this relationship in South Africa. Consistent with a few past international studies (cf. Hammer *et al.*, 2005, Nitzsche *et al.*, 2013; Van Steenberg *et al.*, 2007), the authors found that W2FE was a significant predictor of depression. This result confirms Hypothesis 3a that, when resources generated in employees' work roles improve their functioning in their family role, they are likely to experience reduced depressive symptoms. W2FE may even serve as a protective factor against depression (Nitzsche *et al.*, 2013). Interestingly, being married was also a significant predictor of depression. One could attribute this to spousal support as an important resource for reducing depressive symptoms (Wallace, 2005). Contrary to the authors' expectation, they found no support for Hypothesis 3b (that F2WE predicts depression).

**Emotional exhaustion:** The results of this study confirmed Hypothesis 4a (that W2FE significantly predicts emotional exhaustion). This finding could infer that workplace resources, like social support and decision latitude, allow employees to feel more relaxed and less tired when they leave work to go home to their families, reducing their likelihood of emotional exhaustion. Employees who talk to co-workers and supervisors about their problems, or feel empowered by their ability to exercise autonomy in their roles, may feel less stressed. This feeling enhances their family role and serves as a preventative measure against emotional exhaustion. On the other hand, the authors found no support for Hypothesis 4b (that F2WE was a predictor of emotional exhaustion). Emotional exhaustion is an important aspect of burnout, which originates from the effects of the work role (Montgomery *et al.*, 2006). It seems that, for the participants in this study, the family did not provide resources that they could apply at work to relieve emotional exhaustion.

### Practical implications

This study shows the positive influence of work-family enrichment on psychological health. Most work-family studies have considered the negative relationship between work and family that leads to detrimental and stressful negative outcomes like increased depression and burnout as well as decreased subjective wellbeing.

Van Steenberg *et al.* (2007), who examined WFC and WFE in relation to depression and emotional exhaustion, found that WFE explained additional variance in depression and emotional exhaustion over and above that of WFC. Their findings, together with this study's findings, suggest that managers and employee assistance programmes should aim to find ways to foster WFE instead of only identifying strategies to reduce WFC (Hammer *et al.*, 2005). Work-



family enrichment plays a preventative role in the onset of negative outcomes. Therefore, increasing positive resources in workplaces that facilitate WFE may benefit employees more than applying remedial interventions to deal with WFC, especially in reducing absenteeism and improving workplace productivity.

Managers, who wish to promote WFE, could introduce resource-rich job components (like increased autonomy and task variety) and train managers to support employees, who try to manage their work and family responsibilities, more.

Rooted in social support theory, research on family-supportive supervisor behaviours (FSSB) has shown a strong positive relationship between supportive supervisory behaviour and WFE (Hammer, Kossek, Yragui, Bodner & Hanson, 2009). Furthermore, Haar and Roche (2008) argued that formal family-friendly policies in the workplace are insufficient and often not effectively implemented in the absence of family-friendly support from supervisors. In these circumstances, employees fear that family-friendly policies without their supervisors' support may jeopardise their performance evaluations and career prospects. Supervisors can provide support in the form of emotional support, role-modelling supportive work-family behaviours, direct instrumental support and general creative management (cf. Hammer *et al.*, 2009). When supervisors provide family-friendly support, initiatives like flexible working arrangements (part-time work, flexible parental leave or job sharing) have increased the experiences of work-family enrichment (McNall *et al.*, 2010).

These policies and practices are appropriate for both male and female employees. Organisations should be careful not to reinforce a gendered structuring of work-family life, which places women at the centre of such efforts (Stevens, Kiger & Riley, 2006). Clark (2001) found that employees, who have control over their working conditions and have better perceptions of autonomy, experienced greater levels of job satisfaction and well-being.

### Limitations of the study and future research

This study has some limitations that require noting. Firstly, the use of self-report questionnaires could have artificially inflated the relationships between the predictor and outcome variables (Gareis *et al.*, 2009). Secondly, the use of a cross-sectional design limits the ability to make causal inferences (McNall *et al.*, 2010). Researchers should attempt to design longitudinal studies. Future studies should examine the moderating effects of gender role ideology on the relationships between WFE and psychological health. Powell and Greenahus (2010) argued that gender role attitudes might differ across populations and time, with role stereotypes changing at different rates for diverse groups in distinct locations.

Future research could also include objective measures of employee health (like blood pressure) and sick leave days (Gareis *et al.*, 2009). Other variables to consider include alcohol and drug abuse, job stress and quality of sleep (McNall *et al.*, 2010).

Furthermore, and consistent with positive organisational scholarship, it would be interesting to examine the influence of positive dispositional variables (like optimism, happiness and sense of meaning in life) on the relationships between WFE and psychological health (Moskowitz, 2010).

### Conclusions

Changes in the composition of families and workforces have increased the likelihood that male and female employees will have substantial household responsibilities in addition to those they have at work (Allen, 2001). The results of this study suggest that, despite having several role responsibilities, the benefits that employees experience by combining work and family roles seem to have salutary effects on how employees evaluate their work and family lives (Van Steenbergen *et al.*, 2007). It is becoming increasingly impossible for organisations to motivate and retain employees without being aware that their relationships outside work affect their performance at work (Kanter, 2006).

This study also provides new evidence that work and family roles influence one another positively. Family-to-work enrichment resulted in employees feeling increased levels of subjective wellbeing and work-to-family enrichment led to employees experiencing lower levels of depression and emotional exhaustion.

We need further research on the positive aspects of the work-family interface to balance the plethora of research on work-family conflict and to realise the possibility of improving the quality of family life and workplace productivity.

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#### Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them when they wrote this article.

#### Authors' contributions

A.J. (University of Cape Town) and J.B. (University of Cape Town) wrote the manuscript. Z.W. (University of Cape Town) collected the data and helped to write the initial literature review.

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