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Work-to-family profiles, family structure and burnout in mothers

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Abstract

Purpose The purpose of this paper is to identify work-to-family profiles in working mothers, test whether profiles differ between sole and partnered mothers, and examine whether the work-to-family profiles are associated with burnout. Design/methodology/approach Data on work-to-family conflict (WFC), work-to-family enrichment (WFE), burnout, and relevant socio-demographic covariates were collected via a self-report online survey. Latent profile analysis on WFC and WFE items was used to identify profiles in 179-sole and 857-partnered mothers in paid employment. Regression analyses were performed to examine whether profiles were associated with burnout. Findings Five distinct work-to-family profiles were identified: Harmful, Negative Active, Active, Beneficial, and Fulfilled. Profile membership differed significantly between sole and partnered mothers, with sole mothers more likely to be in the harmful profile. The five profiles had differing implications for burnout. Practical implications WFC and WFE can co-occur, and have differing implications for health and well-being. It is important to consider both WFC and WFE when addressing employee burnout. Furthermore, sole mothers may need greater assistance in reducing WFC and increasing WFE in order to minimize burnout. Originality/value This study contributes to existing research by demonstrating differences in work-to-family profiles between sole and partnered mothers, and highlights the need for future research on diverse family types.

Keywords

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Findings: Five distinct work-to-family profiles were identified: Harmful, Negative Active, Active, Beneficial and Fulfilled. Profile membership differed significantly between sole and partnered mothers, with sole mothers more likely to be in the Harmful profile. The five profiles had differing implications for burnout.

Practical implications: WFC and WFE can co-occur, and have differing implications for health and well-being. It is important to consider both WFC and WFE when addressing employee burnout. Furthermore, sole mothers may need greater assistance in reducing WFC and increasing WFE in order to minimize burnout.

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partnered mothers, and highlights the need for future research on diverse family types.

Keywords: Work-family enrichment, Work-family conflict, Profiles, Mothers, Burnout, Latent profile analysis

Paper type: Research paper

Introduction

A large body of research has examined components of the work-to-family interface such as work-to-family conflict (WFC) and work-to-family enrichment (WFE) (Allen *et al.*, 2000; McNall *et al.*, 2010). Although many studies have explored WFC and WFE in traditional family structures (i.e., two-parent families), very little is known about experiences in other family structures (e.g., sole-parent families). This is an important gap because family structures are increasingly diverse, and it is anticipated that this trend will continue (OECD., 2014). For instance, the proportion of sole parent families in Australia is projected to increase by between 47% and 70% during the period 2011 to 2036 (ABS., 2015).

Sole mothers may have unique experiences of WFC and WFE compared to partnered mothers due to a number of factors, including the absence of a partner to share family responsibilities. In the present study, we utilize a person-centered approach to investigate distinct work-to-family profiles (based on WFC and WFE) in sole and partnered Australian mothers. Person-centered approaches are particularly meaningful because rather than investigating WFC and WFE in isolation, they allow for naturally occurring WFC and WFE combinations to be identified. The primary aim of this paper is to clarify the

nature of work-to-family profiles in this population, and to investigate any differences in profile membership between sole and partnered mothers. The second aim is to investigate whether identified profiles are associated with burnout, this is a highly relevant issue for employees and it may be influenced by components of the work-to-family interface, such as WFC (Innstrand *et al.*, 2008).

Work-Family Conflict and Enrichment

WFC occurs when the demands of work interfere with the ability to perform family duties (Greenhaus and Beutell, 1985). WFC is linked to adverse outcomes, including lower job productivity and satisfaction, poorer mental and physical health, and higher burnout (Allen *et al.*, 2000; Magee *et al.*, 2012). The Conservation of Resources (COR) theory (Hobfoll, 2001) has been applied in numerous studies to understand the causes and consequences of WFC (Grandey and Cropanzano, 1999). According to COR theory, individuals seek to retain, gain, or avoid losing, valued resources such as personal health, stable employment, and support from co-workers (Hobfoll, 2001). Competing demands from work and family roles promotes resource loss, which is a major source of stress. Prolonged WFC can lead to poor health outcomes such as burnout and depression (Hobfoll and Shirom, 2001).

Work can also benefit individuals and their families (Greenhaus and Powell, 2006). WFE is a process that occurs when work-related experiences generate or promote the development of resources (e.g., mood, psychosocial benefits) that benefit the family domain (Carlson *et al.*, 2006). Research shows that higher WFE is associated with positive outcomes, including higher job

satisfaction, and improved physical health and mental health (McNall *et al.*, 2010). The Resource Gain-Development (RGD) model provides a framework for understanding WFE (Wayne *et al.*, 2007). The RGD model assumes that individuals have a natural predisposition to developing, achieving and growing to the greatest degree possible for themselves and groups or systems they belong to, including family and organizations (Wayne *et al.*, 2007). According to the RGD model, WFE occurs when resources gained in the work domain are applied, sustained and reinforced in the family domain. The extent of enrichment experienced is dependent on the level of resources an individual already possesses (Wayne *et al.*, 2007). For example, compared to mothers with few resources, mothers with high resource levels (e.g., high income or a supportive partner) can more readily acquire additional resources, and consequently experience greater WFE.

Work-Family Profiles

Previous work-family research has tended to investigate components such as WFC and WFE separately (e.g., Allen *et al.*, 2000; McNall *et al.*, 2010). However, WFC and WFE are co-occurring processes, and individuals can experience different combinations of WFC and WFE simultaneously (Grzywacz and Marks, 2000). For example, an individual who has a demanding job (e.g., long work hours, high demands) could experience a loss of time and energy (high WFC) but simultaneously experience skill development (high WFE). Person-centered approaches capturing individual differences in levels of WFC and WFE are important because they have the potential to provide a more comprehensive understanding of the complexity of work-to-family processes.

The existence of distinct work-family conflict and enrichment profiles has been supported in some previous studies (e.g. Demerouti and Geurts, 2004; Mauno *et al.*, 2011; Rantanen *et al.*, 2013). Some studies have examined bi-directional measures of work-family experience, however, three studies have specifically examined profiles based on the work-to-family direction (that is, WFC and WFE) (Grzywacz *et al.*, 2008; Rantanen *et al.*, 2011; Rantanen, Kinnunen and Pulkkinen, 2013). All three studies identified four profiles, which despite being labelled differently between studies, represented similar combinations of WFC and WFE: (1) low WFC/high WFE (Beneficial, Balanced, Beneficial imbalance); (2) high WFC/high WFE (Active, Blurred, Active); (3) low WFC/low WFE (Passive, Segmented, Passive balance); and (4) high WFC/low WFE (Harmful, Imbalanced, Harmful imbalance) (Grzywacz *et al.*, 2008; Rantanen *et al.*, 2011; Rantanen, Kinnunen and Pulkkinen, 2013). The three studies examining profiles based on both work-to-family and family-to-work processes have produced some different findings in relation to the number and types of profiles (Demerouti and Geurts, 2004; Mauno *et al.*, 2011; Rantanen *et al.*, 2013). However, some of the work-family conflict and enrichment profiles noted above are evident in these studies. For example, Demerouti and Geurts (2004) identified five profiles: (1) high positive home-work interaction (HWI) (positive HWI); (2) high positive work-home interaction (WHI) (positive WHI); (3) high negative HWI/WHI (negative interaction); (4) high positive and negative HWI/WHI (both positive and negative interaction); and (5) low positive and negative HWI/WHI (no interaction). Mauno *et al.* (2011) also identified five profiles, however they were: (1) low WFC/high WFE/low family-work conflict (FWC)/high family-work enrichment (FWE) (Beneficial); (2) low WFC/low

WFE/ low FWC/low FWE (Passive); (3) high WFC/high WFE/very high FWC/high FWE (Active -1); (4) high WFC/high WFE/moderate FWC/high FWE (Active - 2); (5) high WFC/low WFE/low FWC/high FWE (Contradictory). Despite differences in sample composition, analysis method, and measures (e.g., directionality of WFE and WFC), these studies clearly demonstrate distinct profiles based on multiple aspects of the work-family interface.

An important gap in the literature is that very little is known about the nature of work-to-family profiles in employed mothers, and sole working mothers in particular. Although not yet investigated, Rantanen *et al.'*s (2013) study provides some indication that women could experience different combinations of WFC and WFE compared with men. Unlike other studies they did not identify a profile low in WFC and low in WFE (Passive profile). They attributed the absence of this profile to the large proportion of women (88%) in their sample. In particular, Rantanen *et al.* (2013) suggested that because women are more active in both work and family roles compared with men, they are less likely to experience a combination of low WFC and low WFE. However, Rantanen *et al.*'s (2013) study provides only a partial insight into the nature of the work-to-family interface in working mothers because it included some men and did not examine variables important in the current context such as number of children and family structure. Therefore, the first aim of this study was to identify the number and nature of work-to-family profiles in a sample of women with dependent children. We focused on developing a comprehensive understanding on how work impacts family through WFC and WFE. As such, this study examines conflict and enrichment in the work to family direction only. Drawing on Rantanen *et al.* (2013) findings we expected that a profile low in

WFC and low in WFE (that is, a Passive profile) would not exist in a sample of only working mothers.

Work-to-family profiles and family structure in mothers

The second aim of this paper was to investigate whether work-to-family profiles differ between sole and partnered mothers. The propositions of COR theory (Hobfoll, 2001) suggest that sole and partnered mothers could differ in relation to work-to-family profiles. This is because relationships can provide individuals with important resources such as support, income, and companionship (Grandey and Cropanzano, 1999; Hobfoll, 2001). The absence of a partner could thus mean that compared to partnered mothers, sole mothers have access to fewer resources which can increase vulnerability to further losses. This is an important consideration as individuals with low resource reserves are more vulnerable to further losses during times of high demands, such as when experiencing competing demands from work and family (Hobfoll and Shirom, 2001). Sole mothers may then have greater vulnerability to resource loss and high WFC.

No existing studies have investigated whether sole and partnered working mothers experience different combinations of WFC and WFE. However, there is some recent research showing that levels of WFC differ between sole and partnered mothers (e.g. Dziak *et al.*, 2010; Innstrand *et al.,* 2010). Dziak *et al.* (2010), for example, found that sole mothers had higher levels of WFC compared with partnered mothers. Another study by Innstrand *et al.* (2010) compared WFC between four different family structures, and found that single parents

(73% of whom were women) had significantly higher levels of WFC compared with partnered parents.

Our aim is to extend these findings by investigating whether profiles of WFC and WFE differ between sole and partnered working mothers. According to the propositions of COR theory, we specifically hypothesize the following.

Hypothesis 1a. Sole mothers have a greater likelihood of belonging in a profile high in WFC and low in WFE than partnered mothers.

Hypothesis 1b. Sole mothers have a greater likelihood of belonging in a profile low in WFC and high in WFE than partnered mothers.

Profiles and Burnout

Building on past studies showing that work-family profiles have differing implications for indicators of health and wellbeing (Demerouti and Geurts, 2004; Rantanen *et al.*, 2013), the final aim of this paper was to examine the relationships between work-to-family profiles and burnout. Previous research shows that compared to the Active and Contradictory profiles, the Beneficial profile had the highest life satisfaction and the lowest psychological strains Rantanen *et al.*, 2013). Job and life satisfaction, core-self-evaluation, and job exhaustion have also differed across work-family profiles (Demerouti and Geurts, 2004; Rantanen *et al.*, 2011).

Distinct profiles of WFC and WFE may have implications for burnout, which represents a "combination of physical fatigue, emotional exhaustion, and cognitive weariness" (Shirom, 1989, p. 33). Existing studies have demonstrated that WFC is associated with burnout (e.g., Innstrand *et al.*, 2008), which affects

work performance and parenting, and is a growing problem, particularly for women employees (Jarvisalo *et al.*, 2005). The associations between WFC and burnout can be understood within the context of COR theory. WFC reflects a process whereby work-related demands lead to a threatened, or actual loss, of personal resources, leading to stress (Grandey and Cropanzano, 1999). Resource losses are then exacerbated as individuals invest available resources to prevent further losses, leading to a spiral of resource losses, and over time burnout (Hobfoll, 2001). It is then plausible that profiles characterized by higher levels of WFC will experience higher burnout levels than profiles with lower WFC levels.

In contrast, WFE has been linked with lower levels of burnout (Innstrand *et al.,* 2008). According to COR theory, in times of low stress individuals seek to gain surplus resources in order to prevent or minimise future losses (Hobfoll, 2001). Moreover, any gains can at least partially offset stress and potentially minimise burnout; thus suggesting that WFE may serve as a buffer against the adverse effects of WFC. It is then plausible that individuals with high WFE may not experience the effects of WFC to the same extent as those with low WFE. The following hypotheses are proposed.

> *Hypothesis 2a. Compared to individuals with other profiles, working*
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> *mothers with high WFE and low WFC have the lowest personal and work*
>
> *burnout levels.*
>
> *Hypothesis 2b. Compared to individuals with other profiles, working*
>
> *mothers with low WFE and high WFC have the highest personal and work*
>
> *burnout levels.*

Hypothesis 2c. Compared to individuals with profiles high in WFE and low in WFC, working mothers with high WFE and high WFC have the highest personal and work burnout levels.

Hypothesis 2d. Compared to individuals with profiles low in WFE and high in WFC, working mothers with high WFE and low WFC have the lowest personal and work burnout levels.

Method

Sample

The sample size included 1036 mothers in paid employment with a dependent child (179-sole and 857-partnered). The average age of mothers was 38.44 years (*SD*=6.79). The overall mean number of dependent children was 2.01 (*SD*=.82), which is consistent with the Australian average of 1.9 children per family (ABS, 2013). The mean age of the youngest child in a family was 5.73 years (*SD*=4.94). About 60% had tertiary qualifications, which is higher than the Australian general population (25%) (ABS, 2014). The proportion of Australian-born versus overseas-born participants was higher in the present sample (82.0% and 18%, respectively) compared with the Australian general population (72.7% and 27.3%, respectively) (ABS, 2013).

Procedure

Potential respondents were recruited using a snowball sampling method (Goodman, 1961), posts on social media, including Twitter, and online parenting forums. Posts provided information on the study and an invitation to participate. Snowball sampling involved emailing authors' contacts and asking them to

forward the details of the study onto others who potentially meet the eligibility
criteria, which was a mother in paid employment with a dependent child aged
less than 18 years. Those who received the email were asked to forward the
email to other potential respondents. Emails had a link to the online survey. To
ensure respondents met the inclusion criteria, potential participants were asked
whether they were in paid employment, their work hours, gender and age of
youngest residential child. Those participants who did not meet these
requirements were automatically exited from the survey. This research has
approval from the University's Human Research Ethics Committee.

Measures

Work-to-family conflict (WFC). Netemyer *et al.*'s (1996) five-item scale
was used in this study. An example item is "The demands of my work interfere
with my home and family life". Responses were recorded on a 5-point Likert
scale ranging from strongly disagree (1) to strongly agree (5).

Work-to-family enrichment (WFE). Carlson *et al.*'s (2006) nine items WFE
measure were used in this study. An example item is "My involvement in work
helps me feel personally fulfilled and this helps me be a better family member".
Responses were recorded on a 5-point Likert scale ranging from strongly
disagree (1) to strongly agree (5).

Burnout. Two of the three subscales of the Copenhagen Burnout
Inventory (CBI) - personal (PB) and work-related (WB) - were used to measure
burnout (Kristensen *et al.*, 2005). The two scales are related but distinct from
one another, as supported by factor analysis: χ^2=419.31 (df = 1.43, *p*<0.001). An
example item from the PB subscale is "How often do you feel worn out?".
Responses for this subscale, and four of the WB items were recorded on a 5-

point Likert scale ranging from 1 (always) to 5 (never/almost never). The scale labels were then re-coded to the original labels of 100 (always), 75, 50, 25, and 0 (Never). An example item from the WB subscale is "Does your work frustrate you?". The remaining items are measured on a 5-point Likert scale ranging from 1 (To a very high degree) to 5 (To a very low degree). Again scale labels were re-coded in to the original labels of 100 (always), 75, 50, 25, and 0 (Never). Items for each subscale were summed together to make a total score, and higher scores reflect greater burnout levels.

Demographic Characteristics. There is evidence that some demographic variables influence WFC and WFE (Allen *et al.,* 2000; Rantanen *et al.,* 2013). As such**,** the following were included in this study: age, age of youngest child, number of children, marital status (Rantanen *et al.,* 2013), country of birth (Grzywacz and Marks, 2000), education (Dziak *et al.,* 2010) and household income (Allen *et al.,* 2000). Marital status was coded into two categories: married or partnered relationship, versus single, separated, divorced or widowed.

Results

Sample Characteristics

Table 1 provides information on correlations between study variables. WFC was negatively related to WFE, and positively related to all other variables. WFE was negatively related to the age of the youngest child, and work and personal burnout. Work and personal burnout were positively correlated. Demographic variables of sole and partnered mothers were examined using *t*-tests and chi-square analyses in SPSS (IBM Corp, 2010) in order to provide greater insight into the sample (Table 2). Sole mothers had significantly lower

household incomes, and worked significantly longer hours, than partnered

mothers.

(Insert Table 1 here)

(Insert Table 2 here)

Work-to-Family Profiles

Latent profile analysis (LPA) using MPlus (version 7; Muthen and Muthen,

1998-2015) was performed to identify distinct work-to-family profiles on the

WFC and WFE items. LPA is a person-centered approach that identifies

groupings of individuals who have similar characteristics on the given variables

but differ from those in other groups (Marsh *et al.,* 2009). Consistent with

current recommendations, several model fit indices - the Bayesian information

criterion (BIC), entropy, the Lo-Mendell-Rubin adjusted likelihood ratio test

(LMR), and the bootstrap likelihood ratio test - were used guide the selection of

the optimal numbers of profiles (Muthen and Muthen, 1998-2015; Nylund *et al.*,

2007). An optimal number of profiles is characterized by a minimum LMR value,

a minimum BLRT-value and significant BLRT *p*-value, and maximum entropy. In

addition the meaning, distinctiveness and interpretability of identified profiles,

together with past research guide model selection (Berlin *et al.,* 2014; Marsh *et

al.,* 2009).

We investigated the model fits of models with two to six profiles. As

shown in Table 3, the six-profile solution had the lowest LMR value, and the

lowest, and significant, BLRT value as well as the highest entropy value.

However, the smallest class was below 5% of the sample and was not distinctive

from other profiles (Bauer and Curran, 2004). The five-profile model had the

second lowest BIC values, provided an improved fit relative to the four-profile model, and identified five-distinct profiles. Therefore, the five-profile model was deemed to provide the most parsimonious solution.

The five profiles were named according to their scores across the WFC and WFE items. The means for WFC and WFE items and total scores for the Negative Active, Beneficial, Fulfilled, Active and Harmful profiles are shown in Table 4. Analyses of variance indicated significant differences in WFC ($F_{(4,1031)}$=350.47, p<.001)and WFE ($F_{(4,1031)}$=1606.63, p<.001) across profiles, with post-hoc comparisons indicating significant pairwise differences between profiles (see Table 4 for a summary of these results). We briefly outline these differences below when describing the characteristics of the five profiles. Where relevant, we utilize labels employed in previous research to name comparable profiles (Harmful, Negative Active, Active, Beneficial and Fulfilled). For clarity, the characteristics of the profiles are described at a construct level unless there are any divergent patterns at an item level.

Profile 1 (n = 243; 23.5%) had medium scores on WFC items and medium-to-high scores on WFE items. This profile was labelled Negative Active. The second profile (n = 229; 22.1%) had lower scores across the WFC items compared with the other profiles, and higher scores across WFE items compared with most of the profiles. Consistent with patterns observed in previous research, we labelled this profile Beneficial. Profile 3 (n = 121; 11.7%) had a similar pattern of low WFC and high WFE. However, scores on the WFE items (particularly items assessing fulfillment, accomplishment and success) were higher in this profile compared with the Beneficial profile (along with all other profiles). We therefore labelled this third profile Fulfilled. Profile 4 (n = 349;

33.7%) had generally high scores on all WFC and WFE items; consistent with previous research, we labelled this profile Active. The fifth profile (n = 94; 9.1%) had higher scores across all WFC items and low scores on WFE items. Consistent with existing studies, we labelled this profile Harmful.

(Insert Table 3)

(Insert Table 4)

Table 4 shows that there were no significant differences across profiles in work hours or mother's age (Table 4). The number of children across profiles differed significantly ($F_{(4,1031)}$=6.62, p<.001). Mothers in the Active profile had the most number of children (m=2.07, SD=.90) and mothers in the Harmful profile had the fewest number of children (m=1.74, SD=.75). The age of the youngest child at home also differed significantly across profiles ($F_{(4,1031)}$=3.85, p<.05) and was the lowest for the Fulfilled profile (m=4.68, SD=4.56) and the highest for the Negative Active profile (m=6.87, SD=4.75).

Work-to-Family profiles in sole and partnered mothers

As shown in Table 4 profile membership differed significantly between sole and partnered mothers (χ^2(4)=13.04, p=.01). Post-hoc analyses indicated that partnered mothers were more likely than sole mothers to be in the Beneficial profile than in the Harmful profile (χ^2(1)=5.20, p=.02), and the Fulfilled profile than the Harmful profile (χ^2(1)=5.20, p=.02). A significantly greater proportion of partnered to sole mothers were in the Fulfilled profile compared to the Negative Active profile (χ^2(1)=5.26, p=.02). Thus hypotheses 1a and 1b were supported.

Work-to-Family profiles and burnout

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Personal burnout scores differed significantly between the profiles ($F_{(4,1031)}$=37.67, p<.001). Post-hoc analyses showed that the Harmful profile had significantly higher personal burnout than Beneficial Fulfilled, and Active profiles at p<.001 (Table 4). The Negative Active profile had significantly higher personal burnout than Beneficial, Fulfilled, and Active profiles at p<.001. Finally, the Active profile had significantly higher personal burnout than the Beneficial and Fulfilled profiles at p<.001. Work burnout scores differed significantly between profiles ($F_{(4,1031)}$=91.26, p<.001). Post-hoc analyses showed that the Harmful work burnout levels were significantly higher than Beneficial, Negative Active, Active and Fulfilled levels p<.05. The Negative Active profile had significantly higher work burnout levels than the Beneficial, Active and Fulfilled profiles and the Active profile had significantly higher work burnout levels than the Fulfilled profile at p<.001. Thus Hypothesis 2a, 2b, 2c and 2d were supported.

Discussion

This study provides a more nuanced understanding of work-to-family experiences in sole and partnered working mothers. The results indicated five distinct profiles reflecting different combinations of WFC and WFE: (1) high WFC/high WFE (Active); (2) high WFC/low WFE (Harmful); (3) high WFC/low to medium WFE (Negative Active); (4) low WFC/high WFE (Beneficial); and (5) low WFC/very high WFE (Fulfilled). Even though work-to-family profiles have not been examined in a sample comprised solely of employed mothers, the nature of identified profiles is somewhat consistent with previous findings. In particular, three of the five profiles in the present study (Harmful, Beneficial, and Active)

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are similar to those reported by Rantanen *et al.* (2013) in a sample comprising 88% women employees. Consistent with Rantanen *et al.* (2013) we did not observe a Passive profile. It is possible that the absence of a Passive profile in employed mothers reflects a greater permeability between work and family roles for women than men, which can have detrimental outcomes, such as being disruptive to family life (Ventura, 1995). In contrast to Rantanen *et al.* (2013), we identified two additional profiles – Fulfilled and Negative Active. These profiles, as discussed below, shed new light on the nature of work-to-family profiles in working mothers.

Two of our identified profiles - Beneficial and Fulfilled – were characterized by high WFE combined with low WFC. The Beneficial profile is similar to combinations identified in previous research (e.g., Grzywacz *et al.*, 2008; Rantanen *et al.*, 2011; Rantanen *et al.*, 2013). Although having a similar pattern, the Fulfilled profile had substantially higher scores on items relating to fulfillment, than for other WFE items. It is possible that for a subgroup of mothers work promotes greater psychosocial resources that aid functioning in the family role (Carlson *et al.,* 2006).

Two profiles also had a co-occurrence of high WFE/high WFC (Active and Negative Active). The presence of these two profiles aligns with Rantanen *et al.'s* (2013) claim that many women experience a higher permeability between work and family life than men, resulting in both higher WFC and higher WFE. Although, the Active and Negative Active profiles were similar, the Negative Active profile had lower scores on items relating to positive affect (e.g. work puts me in a good mood). Overall, these results suggest that work-to-family

experiences in employed mothers are complex, and could manifest in different combinations of WFC and WFE.

Differences in profile membership

As hypothesized, we observed differences in profile membership between sole and partnered mothers. Consistent with hypotheses 1a and 1b, compared to partnered mothers, sole mothers were more likely to belong to the Harmful profile, and less likely to belong to the Beneficial profile. This paper did not explicitly examine levels of personal resources. However, we observed that sole mothers had lower incomes and longer work hours compared with partnered mothers. Although more research is required, it is plausible that these differences reflect that sole mothers have fewer resources (Hobfoll 2001). According to COR theory, this could mean that sole mothers are more vulnerable to harmful work-to-family experiences. This is a tentative conclusion, and we recommend that further research be conducted examining factors such as work hours, and investigating the extent to which resource gains and losses underlie these differences.

Work-to-family profiles and burnout

Finally, we found that levels of burnout differed significantly between work-to-family profiles, supporting hypotheses 2a, 2b, 2c, and 2d. An important finding was that burnout was lower in the Active profile than the Harmful and Negative Active profiles despite the Active profile having higher or similar WFC levels. That is, higher levels of WFE in the Active profile appeared to buffer against the adverse effects of WFC, and protect against burnout (Greenhaus and Powell, 2006; Hobfoll, 2001). This is consistent with COR theory, and future

research is needed to clarify whether access to certain resources in the Active profile are particularly important in buffering against WFC.

Implications

The present study makes several noteworthy contributions to the work-to-family literature, and there are a number of implications arising from the findings. First, this is the only known study to identify WFC and WFE profiles in employed mothers, and shows that the majority of mothers experience high WFC and high WFE simultaneously. This suggests many mothers are investing highly in both work and family domains (Rantanen *et al.,* 2013), and ongoing efforts are needed to reduce the demands on employed mothers. One approach is to make family leave more accessible to families, in particular paid maternity leave for working mothers.

This study also shows, for the first time, that sole mothers are more likely than partnered mothers to experience high WFC/low WFE simultaneously, which is also linked to higher levels of burnout. It is important to recognize that combining work and family differs between sole and partnered mothers. Furthermore, this study confirms that health outcomes differ across work-to-family profiles. Findings suggest that WFE may provide a buffering effect on WFC, thus greater efforts are needed to ensure WFE is promoted particularly in cases where there is difficulty reducing WFC due to the nature of the work role.

Limitations and future studies

This study is limited by a cross-sectional design, thus only associations, and not predictions, can be determined. Additionally, the non-experimental design does not allow for causality to be determined. Future research using a longitudinal design is recommended. Future studies might identify profiles

using bi-directional, rather than unidirectional, work-family measures in working mothers. Because the scales used to identify profiles had more WFE items than WFC items, it is plausible that the profiles more heavily reflect WFE. We therefore recommend that future research use similar length scales for WFC and WFE.

Furthermore, due to the recruitment method used, the sample sizes of sole and partnered mothers differ, and future research may wish to repeat the study using similar sample sizes. Finally, the sample included highly educated Australian mothers, which limits generalizability. Future research should also be carried out to establish whether work-to-family profiles differ across other family types such as sole and partnered fathers, stepfamilies, elder caregivers, and grandparents raising grandchildren.

Conclusion

The present findings suggest that mothers commonly experience high WFC and WFE simultaneously, and that sole mothers are at greater risk of harmful work-to-family conflict and enrichment profiles, which may further perpetuate the disadvantages facing this group of employees. It is important that future research expands on this study and identifies work-to-family profiles in other family types in order to support positive outcomes for individuals combining work and family.

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Table 1. Correlations and means (standard deviations) for sample

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 WFC	3.35	0.86	(0.86)										
2 WFE	3.54	0.74	-0.30**	(0.93)									
3 Years in current role	5.45	4.88	0.08*	-0.06									
4 Hours[a]	31.54	10.86	0.35**	-0.02	0.05								
5 Number of children	1.94	0.87	0.08*	0.06	0.07*	-0.06*							
6 Age of youngest child (years)	5.84	4.98	0.09**	-0.08**	0.12**	0.30**	0.02						
7 Age (years)	38.21	6.68	0.08**	-0.05	0.22**	0.20**	0.16**	0.71**					
8 PB	58.14	17.14	0.47**	-0.35**	0.03	0.08*	0.02	-0.02	-0.03	(.90)			
9 WB	48.34	18.08	0.61**	-0.48**	0.11**	0.23**	-0.03	0.10**	0.02	0.70**	(.88)		
10 Education[b]	2.58	0.69	0.04	0.15**	0.06	-0.01	0.01	-0.11**	0.11**	-0.06	-0.05		
11 Marital status[c]	0.83	0.38	-0.11*	0.10**	0.05	-0.08**	0.05	0.29**	-0.18*	-0.11**	-0.12**	1.44**	
12 Household income[d]	2.29	0.80	0.01	0.13**	0.13**	0.12**	0.04	-0.14**	-0.03	-0.12**	-0.06	0.28**	0.55**

Notes: WFC – work-family conflict; WFE – work-family enrichment; PB – personal burnout; WB – work burnout; [a]work hours is continuous [b]1=up to high school, 2=trade or certificate; and 3=tertiary; [c]0=sole and 1=partnered; [d]1=up to $80,0000; 2=$80,001 to $120,000; 3=$120,001+. Reliability coefficients are reported in parentheses on the diagonal for relevant variables. *$p < 0.05$; ** $p < 0.01$ (two tailed)..

Table 2. Personal and work characteristics of the sample, and differences between sole and partnered mothers

	Total (*n*=1036) *N* (%)	Sole (*n*=179) *N* (%)	Partnered (*n*=857) *N* (%)	Chi Square or *t*-test *p*-value
Ethnicity				
Australian	894 (86.3)	156 (86.1)	738 (87.2)	*n.s.*
Other	142 (13.7)	23 (13.9)	119 (12.8)	
Education				
Up to High School	118 (11.4)	27 (15.1)[a]	91 (10.6)[a]	*p*<.001
Trade/certificate	200 (19.3)	60 (33.5)[a]	140 (16.3)[b]	
Tertiary	718 (69.3)	92 (51.4)[a]	626 (73.0)[b]	
Income ($)				
Up to 80K	220 (21.2)	130 (72.6)[a]	90 (10.5)[b]	*p*<.001
81K to 120K	293 (28.3)	38 (21.2)[a]	255 (29.8)[b]	
More than 120K	523 (50.5)	11 (6.1)[a]	512 (59.7)[b]	
Work hours				
<21 hours	174 (16.8)	29 (16.2)[a]	145 (16.9)[a]	*p*<.001
21 – 34 hours	380(36.7)	42 (23.5)[a]	338 (39.4)[b]	
More than 34 hours	482 (46.5)	108 (60.3)[a]	374 (43.6)[b]	
Age in years, mean (*SD*)	39.24 (6.95)	40.80 (7.53)	37.67 (6.36)	*p*<.001
Age of youngest child in years, mean (*SD*)	7.10 (4.84)	9.02 (4.94)	5.17 (4.73)	*p*<.001
Number of children, mean (*SD*)	1.90 (.93)	1.84 (1.02)	1.96 (.84)	*n.s.*

n.s. not significant at *p*<.05; columns with the same subscript letter denote that there are no significant differences in column proportions between sole and partnered mothers at the .05 level.

Table 3. Fit indices for the estimated solutions of the latent class analyses.

	Log likelihood	BIC	Entropy	BLRT
2 classes	-18051.70	36401.95	.91	-20002.57*
3 classes	-17205.54	34813.79	.91	-18054.70*
4 classes	-16736.47	33979.78	.90	-17205.64*
5 classes	-16736.47	33201.46	.91	-16736.47*
6 classes	-16004.31	32723.77	.92	-16295.23*

BIC, Bayesian information criterion; BLRT, bootstrap likelihood ratio; * BLRT p value < 0.05.

Table 4. Means (M) and standard deviations (SD) for characteristics and burnout of the five identified work-family profiles

	Harmful M (SD)	Negative Active M (SD)	Beneficial M (SD)	Active M (SD)	Fulfilled M (SD)	F
Size (N(%))	94 (9.1)	243(23.5)	229 (22.1)	349 (33.7)	121 (11.7)	-
Sole mothers (N(%))	23(24.5)	52 (29.1)	32 (14.0)	58 (16.6)	14 (11.6)	39.35*
Partnered mothers (N(%))	71 (75.5)	191(22.3)	197 (86.0)	291 (83.4)	107(88.4)	172.53*
Mean total work-family conflict (WFC)	3.70 (0.85)	3.84 (0.57)	2.33 (0.46)	3.82 (0.45)	2.67 (0.71)	350.47**
The demands of my work interfere with my home and family life.	3.80 (1.05)	3.91 (0.67)	2.44 (0.80)	3.91 (0.63)	2.76 (0.97)	181.50**
The amount of time my job takes up makes it difficult to fulfil family responsibilities	3.66 (1.06)	3.78 (0.82)	2.20 (0.66)	3.77 (0.68)	2.48 (0.81)	214.08**
Things I want to do at home do not get done because of the demands my job puts on me	3.89 (0.90)	4.07 (0.66)	2.41 (0.84)	4.03 (0.56)	2.98 (1.01)	220.61**
My job produces strain that makes it difficult to fulfil family duties	3.66 (1.09)	3.74 (0.82)	2.07 (0.56)	3.62 (0.78)	2.28 (0.83)	220.89**
Due to work-related duties, I have to make changes to my plans for family activities	3.59 (1.04)	3.69 (0.93)	2.55 (0.99)	3.79 (0.80)	2.87 (1.10)	79.34**
Mean total work-family enrichment (WFE)	2.09 (0.49)	2.98 (0.31)	3.73 (0.33)	3.83 (0.30)	4.64 (0.28)	1060.63**
Helps me to understand different viewpoints	2.68 (0.95)	3.19 (0.84)	3.76 (0.66)	3.82 (0.66)	4.41 (0.68)	102.74**
Helps me to gain knowledge	2.50 (0.90)	3.19 (0.85)	3.78 (0.65)	3.89 (0.62)	4.58 (0.53)	152.65**
Helps me acquire skills	2.51 (0.97)	3.21 (0.83)	3.76 (0.61)	3.89 (0.63)	4.57 (0.56)	147.25**
Puts me in a good mood	1.80 (0.71)	2.22 (0.59)	3.46 (0.64)	3.40 (0.64)	4.51 (0.58)	411.83**
Makes me feel happy	1.83 (0.65)	2.49 (0.60)	3.57 (0.60)	3.64 (0.54)	4.56 (0.50)	470.01**
Makes me cheerful	1.77 (0.59)	2.35 (0.56)	3.32 (0.64)	3.30 (0.61)	4.38 (0.57)	370.21**
Helps me feel personally fulfilled	1.90 (0.66)	3.34 (0.68)	3.96 (0.54)	4.19 (0.51)	4.93 (0.25)	494.16**
Provides me with a sense of accomplishment	1.96 (0.62)	3.51 (0.58)	3.97 (0.55)	4.21 (0.43)	4.95 (0.22)	562.71**
Provides me with a sense of success	1.85 (0.57)	3.32 (0.64)	3.86 (0.63)	4.13 (0.49)	4.83 (0.39)	468.31**
Personal burnout (mean)	11.30 (2.93)	11.10 (2.29)	7.98 (2.66)	9.99 (2.37)	8.00 (2.96)	37.67(4)**
Work burnout (mean)	9.36 (2.38)	8.51 (2.10)	4.95 (1.93)	9.92 (2.10)	4.61 (2.01)	91.26(4)**

Work hours	31.77 (10.04)	22.88 (10.31)	25.60 (10.02)	34.01 (10.37)	30.83 (11.13)	1.98
Number of children	1.74 (0.75)	1.93 (0.96)	1.86 (0.82)	2.07 (0.90)	1.88 (0.74)	3.85*
Age of youngest child (years)	6.43 (4.75)	6.87 (5.30)	4.94 (4.61)	5.95(5.04)	4.68 (4.56)	6.62**
Mothers' Age (years)	38.96 (6.75)	38.81 (7.12)	37.66 (6.25)	38.33 (6.65)	37.12 (6.46)	2.03

*significant at $p<0.05$ **significant at $p<0.001$.