



# Testing the Spillover-Crossover Model between Work-Life Balance and Satisfaction in Different Domains of Life in Dual-Earner Households

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Received: 3 April 2019 / Accepted: 4 March 2020 / Published online: 30 March 2020

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## Abstract

This study explored the spillover and crossover associations between work-life balance and satisfaction with life, food-related life and family life in dual-earner parents. Questionnaires were administered to 303 dual-earner couples with adolescent children in Temuco, Chile. Both members of the couples answered the Work-life Balance (WLB) scale, Satisfaction with Life Scale (SWLS), Satisfaction with Food-related Life scale (SWFoL) and the Satisfaction with Family Life scale (SWFaL). Using the actor-partner independence model and structural equation modeling and having controlled for the effects of age, number of children, number of family members and family socioeconomic status, we found that the man's work-life balance was positively associated with his own levels of satisfaction with life, family life and food related life, as well as with his partner's (the woman's) levels of satisfaction with life, food related life and family life. Likewise, the woman's work-life balance was positively associated with her own levels of satisfaction with life, family life and food related life, as well as with her partner's (the man's) levels of satisfaction with food related life and family life, but not with his level of life satisfaction. These findings suggest the need to improve work-life balance for employees of both genders in order to enhance their overall life satisfaction, as well as their satisfaction in the family and food domains.

**Keywords** Subjective well-being · Work-life balance · Spillover · Crossover · Family · Food

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## Introduction

There have been many changes in the last few decades which has made work-family conflict more common among people in different countries (Minnotte and Yucel 2018). This conflict in the balance between work and family life is defined as “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus and Beutell 1985). Several authors have demonstrated that conflict between work and family life often has negative effects not only on individuals, but on families, businesses, and society at large (Frone 2003; Matias et al. 2017a). While the work-family conflict has negative consequences, work-family enrichment can be thought of as “how family roles benefit from work roles through developmental resources, positive affect, and psychosocial capital derived from involvement in work” (Siu et al. 2010:471). Definitions differ with regard to work-family balance. Some authors relate it to the absence of conflict (e.g.: Premeaux et al. 2007), others stress that this type of balance involves having more enrichment than conflict (e.g.: Frone 2003), while others suggest that balance is an additional construct beyond conflict and enrichment (Grzywacz and Carlson 2007; Carlson et al. 2009). However, as Haar (2013) pointed out, “work-family balance studies focus on the family only and do not extend into the life domain”. Therefore, given that in the present study we inquire into other work-life dimensions and not only the family domain, following authors such as Greenhaus and Allen (2011), Haar (2013) and Haar et al. (2014), in this paper we focus on work-life balance (WLB). WLB can be thought of as a person’s perceived balance of their roles in work and the rest of life (Haar 2013; Haar et al. 2014). In this regard, WLB involves a wider and more encompassing approach of the interface between an employee’s work and their other roles, i.e.: “the extent to which an individual is able to adequately manage the multiple roles in their life, including work, family and other major responsibilities” (Haar 2013:3308). Although WLB should be a primary concern, studies are still scarce (Greenhaus and Allen 2011; Haar et al. 2014) and focus on the intra-individual transfer of balance. In this regard, there is evidence that employees who perceive that they have balanced work and life roles effectively tend to have higher senses of well-being (Lyness and Judiesch 2014) and experience higher levels of life satisfaction (Haar et al. 2014; Haar 2013), job satisfaction (Brough et al. 2014; Haar et al. 2014; Haar 2013; Viñas-Bardolet et al. 2019), family satisfaction (Brough et al. 2014; Viñas-Bardolet et al. 2019) and fewer health problems (Haar 2013; Lunau et al. 2014).

In dual-earner households, both adult household members must effectively balance their work lives with other life roles, as their work-life balance may affect not only their own well-being, but also the well-being of the partner. After a thorough search of the literature, we found that no other study has assessed the relationships between work-life balance and subjective well-being from a dyadic point of view, addressing the interdependencies of both members of dual-earner couples. Thus, our study analyses the spillover and crossover associations between work-life balance and subjective well-being in dual-earner parents in Chile, a developing country in Latin America. In Chile, although female participation the workforce is below average for Latin America (55%) and for developed countries (61%), had increased from 31% in 1990 to 48% in 2017 (CNP 2017), thereby changing the traditional gendered family roles. Double income families imply that the time dedicated to the family and other life domains decreases,

which can increase pressure felt by both members of the couple (Pinto and Barra 2015; Fan et al. 2015). Thus, we sought to focus on the relationships between couples' WLB and their overall life satisfaction, as well as their satisfaction in the domains of family and food.

### Conceptual Approach and Hypotheses

The scarcity hypothesis proposed by Goode (1960) and different models based on role theory (Pleck 1977) posit that individuals have a finite amount of time and energy; thus, when energy or time becomes depleted in one role it is not available for utilization in other roles. Therefore, employees participating in multiple roles experience conflict between these roles (Haar 2013). By contrast, the expansionist theory (Barnett and Hyde 2001) argues that multiple roles are beneficial for both genders of employees. From another perspective, the conservation of resources theory (COR; Hobfoll 1989, 2002) postulates that "people attempt to obtain, retain, and protect resources and that stress occurs they risk losing, or actually lose, such resources" (Hobfoll 2002; Hobfoll et al. 2018; ten Brummelhuis and Bakker 2012:547). COR theory involves two major processes: "The first is a loss spiral, in which stress develops and resources further deplete, and the other is a gain spiral, in which resources accumulate" (Hobfoll 1989, 2002; ten Brummelhuis and Bakker 2012:547). Therefore, according to COR theory, resources are a key factor in generating or decreasing stress and in enhancing a sense of well-being across all domains (Pattusamy and Jacob 2017). In this regard, it is possible for an employee to use contextual resources, such as job autonomy, to do their work more efficiently and thus save time (a personal resource) for use in other domains, such as leisure, work, family and others (ten Brummelhuis and Bakker 2012). Therefore, consistent with the COR theory, we expect that the resources necessary to enhance balance between work and other domains also promote satisfaction in overall life satisfaction as well as in other life domains. In fact, Haar (2013) stressed that "role balance can provide additional benefits through the ability to balance multiple roles and successfully juggle multiple commitments".

Although COR theory's main focus corresponds to protecting, gaining and preserving resources (Hobfoll 1989, 2002), an extra dimension is the exchange of resources on the basis of the crossover model (Hobfoll et al. 2018). This is relevant given that how well a balance is struck between work and family life can impact other life domains and is likely to affect not only the individual, but also those closest to them (Bakker and Demerouti 2013; Matias et al. 2017a, 2017b; Yucel 2017a). Working hard to meet a deadline at work, for example, may reduce the time the employee can spend partner (Yucel 2017a). Therefore, positive or negative experiences in one life domain may be transmitted to another, which is known as the "spillover-crossover" model (SCM; Bakker and Demerouti 2013). "Spillover" refers transmitting either stress or positive experiences in one domain to another, while "crossover" involves transmitting stress or positive experiences from one domain to another, but the stress or positive experiences cross over between close persons sharing the same environment (Bakker and Demerouti 2013; Matias et al. 2017b; Yucel 2018). Whereas spillover involves the transfer of stressors (negative spillover) or positive experiences (positive spillover) that can be viewed as intra-individual, crossover is the dyadic, inter-individual transfer of stressors (negative crossover) or positive experiences (positive crossover) (Bakker and

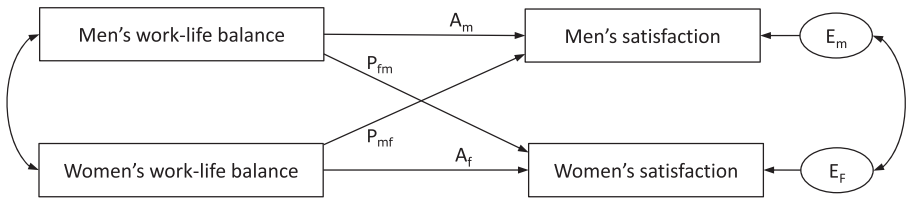
Demerouti 2013; Demerouti et al. 2005). An example of the basic model for spillover-crossover is demonstrated in Fig. 1. The literature suggests different mechanisms of the crossover process, which are applicable for both negative and positive experiences (Steiner and Krings 2016). Westman and Vinokur (1998) proposed that crossover occurs directly when experiences, affective states and resources are transmitted between the partners through empathy, while indirect crossover occurs through social interactions between partners. It is important to highlight that the SCM suggests that work-related experiences first spillover to the home domain, and subsequently cross over to those who share the same environment (Bakker and Demerouti 2013). Therefore, it is possible to hypothesize that if the level of WLB of one member of the couple is high or improves, he/she would have more resources to dedicate to the home domain (including family and other important home tasks), positively affecting their own performance in the home domain, and in turn positively influencing directly or indirectly the other member of the couple's positive outcomes (e.g.: life satisfaction), and vice versa. While some studies have focused solely on unidirectional crossover effects (husbands to wives), others have studied bidirectional crossover (from husbands to wives and from wives to husbands) (Westman and Bakker 2008). The bidirectional crossover influence is especially important in the case of dual-earner couples who both must balance work, family life and other roles (Matias et al. 2017b), where, according to the family system theory, there is a notable "interdependence between individuals, structures and processes" (Kerr and Bowen 1988). Recent studies support the SCM in dual-earner couples. Regarding negative spillover-crossover effects, Xin et al. (2018) reported that employee job tension increases level of conflict between work and family life, which negatively affects partner-family satisfaction. Emanuel et al. (2018) found that job insecurity of one member of the couple not only affected their family life satisfaction, but affected that of their partner's as well. Lu et al. (2016) found that work-family conflict in males relates negatively to their female partner's family satisfaction, physical and mental well-being, and vice versa. Regarding positive spillover-crossover effects, Rodríguez-Muñoz et al. (2014) demonstrated that the daily work engagement of an employee affected their partner's daily happiness through the employees' daily happiness. Liu and Cheung (2015) found that female work-to-family enrichment was negatively associated with their male partner's psychological strain, and positively associated with husbands' life and marital satisfaction, whereas male work-to-family enrichment was positively related to their female partner's life and marital satisfaction. Thus, based on the COR theory (Hobfoll 1989, 2002), the SCM (Bakker and Demerouti 2013), the additional benefits associated with role balance (Haar 2013) and the evidence showing that positive work-life balance relates positively with outcomes regarding life and family satisfaction (Brough et al. 2014; Haar et al. 2014; Haar 2013; Viñas-Bardolet et al. 2019), we pose the following hypotheses:

H1a: An employee's work-life balance is positively associated with their life satisfaction (spillover effect).

H1b: An employee's work-life balance is positively associated with their partner's life satisfaction (crossover effect).

H2a: An employee's work-life balance is positively associated with their family life satisfaction (spillover effect).

H2b: An employee's work-life balance is positively associated with their partner's family life satisfaction (crossover effect).



**Fig. 1** Basic actor-partner interdependence model of work-life balance and satisfaction.  $A_m$ : actor effect of men's work-life balance on his own satisfaction;  $A_f$ : actor effect of women's work-life balance on her own satisfaction;  $P_{fm}$ : partner effect of men's work-life balance on women's satisfaction;  $P_{mf}$ : partner effect of women's work-life balance on men's satisfaction;  $E_m$  and  $E_f$ : residual errors on satisfaction for men and women, respectively.

Based on the COR theory, ten Brummelhuis and Bakker (2012) proposed the work-home resources (W-HR) model, which provides a view of what occurs when the work and home domains conflict with or enrich each other. In the W-HR model, work-home conflict shows a process by which the demands in one domain consume personal resources, resulting in a reduction of outcomes in the other domain. Work-home enrichment shows the process of resource accumulation, by which work and home resources increase personal resources, improving the performance in the other domain. It is noteworthy that this model goes beyond the family domain. ten Brummelhuis and Bakker (2012) consider the “home domain” instead of the “family domain” because “home” encompasses the various life roles that employees might have beyond their work roles (Greenhaus and Powell 2006). In this sense, the W-HR model and the concept of WLB are in the same line, given that both involve a wider approach of the interface between work and the role that individuals have in other life domains besides the family. Therefore, another sphere of the home domain that may be affected by WLB is food.

Food as a domain can be expected to be related to satisfaction with life for several reasons, given that food plays a fundamental and vital role in our lives (Scott and Vallen 2019). First, health is among the important domains that influence life satisfaction (Lamu and Olsen 2018), which nowadays is importantly associated with the prevention of non-communicable diseases through the promotion of healthy lifestyles, including a healthy diet (Tan et al. 2018). In this regard, there is evidence showing that higher levels of overall life satisfaction have been positively associated with healthier eating in a large range of ages (e.g.: André et al. 2017; Peltzer and Pengpid 2017; Schnettler et al. 2013; Schnettler et al. 2018a; Tan et al. 2018). On this basis, Scott and Vallen (2019) suggest that issues related to food affect the short- and long-term well-being of people and communities. Second, food and food consumption occupy an important part of an average person's life in terms of time, energy and financial resources (Grunert et al. 2007; Scott and Vallen 2019), with very limited consensus on a normative solution that maximizes the well-being of every individual (Scott and Vallen 2019). Third, research into positive emotions has shown that basic need activities, such as eating, are an important category of stimuli giving rise to happiness and a good life (Lobos et al. 2016; Macht et al. 2004, 2005; Schnettler et al. 2015a). In addition, eating habits are associated with other domains of life, such as family (e.g.: Agrawal et al. 2018; Schnettler et al. 2017a), work (e.g.: Agrawal et al. 2018; Liu et al. 2017) and leisure (Maier et al. 2013), including the social

dimension of food which goes beyond nutrition (Salvy et al. 2017; Speirs et al. 2016). In fact, for individuals, food not only provides nourishment and sustenance, but also carries cultural and symbolic meaning (Block et al. 2011). The food well-being framework developed by Block et al. (2011) is defined “as a positive psychological, physical, emotional, and social relationship with food at both the individual and societal levels”, and emphasizes the positive and holistic contributions that food can make to people’s well-being (Mugel et al. 2019). Following the food well-being framework, Bublitz et al. (2013) identified three types of goals for food well-being. First, functional goals are about achieving health objectives. Second, symbolic goals are associated with the creation of social links as a result of sharing meals with others or by adopting a particular diet to adhere to or remain within social norms. And third, the hedonic goals refer to the gustatory pleasure and perception of well-being inherent in the experience of consuming food (Bublitz et al. 2013).

Based on the previous background and according to the “bottom-up” theoretical approach of life satisfaction (Pavot and Diener 2008), Grunert et al. (2007) suggested that food is among the important domains of life related to an individual’s life satisfaction. Satisfaction with food-related is defined as a person’s overall assessment of their food and eating habits (Grunert et al. 2007). Studies involving adult samples show that satisfaction with food related-life is associated with overall life satisfaction (e.g.: Grunert et al. 2007; Lobos et al. 2017; Schnettler et al. 2013, 2014; Schnettler et al. 2015a; Schnettler et al. 2015b; Schnettler et al. 2017a), which corresponds to the hedonic approach to subjective well-being (Kahneman et al. 1999), where eating is usually viewed as a pursuit of pleasure or pleasant emotions (Kahneman et al. 2010). However, a recent study also found support for a relationship between the eudemonic approach to subjective well-being (Ryan and Deci 2000) and food consumption (Mugel et al. 2019). From this perspective, these authors found that food well-being is a dynamic and meaningful experience including different processes, quests, contextual conditions and resulting emotions and moods, which goes beyond happiness and pleasure (the hedonic approach) (Muguel et al. 2019).

According to the “work-home conflict” concept proposed in the W-HR model, there is evidence showing that competing demands for time and energy of an employee (i.e.: demands in one domain consume personal resources) often contributes to fewer meals prepared or eaten at home, thus leading to poorer nutritional quality of meals (Agrawal et al. 2018; Brannen et al. 2013; Devine et al. 2006; Pearson et al. 2017), which represents a reduction of outcomes in the other domain (ten Brummelhuis and Bakker 2012). Other studies also provide evidence of the occurrence of “work-home conflict”, in which demands in the work domain resulted in a reduction of outcomes in the food domain (Liu et al. 2017; Melby and Takeda 2014). Melby and Takeda (2014) found that an inadequate work-life balance (in particular related to time availability imposed by the work conditions) is among the main barriers to achieving ideal diet in workers. Liu et al. (2017) found that workers who experience more job demands in the morning consumed less healthy food and fewer types of healthy food in the evening. At the same time, these studies provide evidence in favor of the existence of the spillover effect between work and the food domain. However, there is also evidence showing both spillover and crossover effects between these two domains. It has been reported that employees who experience problems in balancing work and home obligations have

maintain less healthy environments at home (Blake et al. 2009; Hearst et al. 2012; Monsivais et al. 2014), less frequent family meals (Pagnan et al. 2017) and a greater frequency of fast food consumption, all of which negatively affect the quality of diet of both members of the couple (Fan et al. 2015). Given that healthy eating habits have been related to higher levels of food-related life satisfaction in adults (Bech-Larsen and Tsalis 2018; Lobos et al. 2017; Schnettler et al. 2013, 2014; Schnettler et al. 2015a; Schnettler et al. 2015b; Schnettler et al. 2017a; Schnettler et al. 2018a), according to the W-HR model (ten Brummelhuis and Bakker 2012) and the SCM (Bakker and Demerouti 2013), the following hypotheses are proposed:

H3a: An employee's work-life balance is positively associated with their food-related life satisfaction (spillover effect).

H3b: An employee's work-life balance is positively associated with their partner's food-related life satisfaction (crossover effect).

## Method

### Sample and Procedure

We utilized non-probability sampling to obtain a sample consisting of 303 dual-earner couples with adolescent children in Temuco, Chile. We included couples who were married as well as those who were cohabiting, since there has been a recently growing trend of cohabitation in lieu of legal marriage in Chile (Calvo et al. 2011). Participants were recruited through their children from seven schools in socioeconomically diverse areas. The principals from each school were asked to sign letters of authorization to contact their students' parents and provided a list of students from grade 5 and up (minimum age of 10) as well as their parents' telephone numbers. Trained interviewers made contact with parents to explain the study's objectives and strict confidentiality. Details were then provided regarding the questionnaires, and both parents were asked to participate in the study. Interviews were conducted in participants' homes. After participants signed written informed consent forms, surveys were administered to the couple by a trained interviewer. Each member of the couple was interviewed alone and with assured anonymity. This was performed between May and August 2017, and the study design was approved by the Ethic Committee of the Universidad de La Frontera. A pilot test was conducted for the surveys by using 20 families following the same recruitment method. The pilot test was deemed satisfactory, thus no changes were made to the questionnaires or the interview procedure.

### Measures

The following instruments were answered by both members of the couple:

- *Work-life Balance* (WLB): The WLB (Haar 2013) is a scale composed of three items grouped into a single dimension ("*I manage to balance the demands of my work and personal/family life well*", "*Nowadays, I seem to enjoy every part of my life equally well*", "*I manage to balance the demands of my work and personal/family life well*"). The WLB scale has shown good internal consistency in previous studies conducted in different countries (Haar et al. 2014). The Spanish version of the WLB

scale was used (Schnettler et al. 2018c). Respondents indicated their degree of agreement with the three statements using a 5-point Likert scale (1: completely disagree to 5: completely agree). The WLB scores were obtained via a sum of the scores from the three items.

- *Satisfaction with Life Scale* (SWLS): The SWLS (Diener et al. 1985) consists of five items grouped into a single dimension that is used to evaluate overall cognitive judgments about a person's own life (e.g.: "In most ways my life is close to my ideal"). The Spanish version of the SWLS was used (Schnettler et al. 2011). Respondents indicated their degree of agreement with each statement using a 6-point Likert scale (1: completely disagree; 6: completely agree). SWLS scores were obtained via a sum of the scores from the five items.

- *Satisfaction with Food-related Life* (SWFoL): The SWFoL (Grunert et al. 2007) consists of five items grouped into a single dimension that is used to evaluate a person's overall assessment of their food and eating habits ("Food and meals are positive elements"; "I am generally pleased with my food"; "My life in relation to food and meals is close to ideal"; "With regard to food, the conditions of my life are excellent"; "Food and meals give me satisfaction in daily life"). The Spanish version of the SWFoL was used (Schnettler et al. 2011). Respondents indicated their degree of agreement with each statement using a 6-point Likert scale (1: completely disagree; 6: completely agree). SWFoL scores were obtained via a sum of the scores from the five items.

- *Satisfaction with Family Life* (SWFaL): This scale, proposed by Zabriskie and McCormick (2003), is an adaptation of the SWLS (Diener et al. 1985) in which the words "family life" replace the word "life" in each of the five original items of the SWLS. Family satisfaction can be defined as a "conscious cognitive judgment of one's family life based on the subjective criteria of each individual" (Zabriskie and McCormick 2003). The Spanish version of the SWFaL was used (Schnettler et al. 2017b). Respondents indicated their degree of agreement with each of the statements using a 6-point Likert scale (1: completely disagree; 6: completely agree).

The Spanish-language versions of the SWLS, SWFoL and SWFaL have previously shown good internal consistency with adults (Schnettler et al. 2013, 2014, 2015a, 2015b; Schnettler et al. 2017a; Schnettler et al. 2017b; Schnettler et al. 2018a, 2018b). Results for confirmatory factor analyses (CFA) with correlated latent constructs indicated that the correlations between SWLS and SWFoL (0.30–0.52), SWLS and SWFaL (0.46–0.74) and between SWFaL and SWFoL (0.29–0.56) were positive and statistically significant in samples of adults in Chile (Schnettler et al. 2017a; Schnettler et al. 2017b; Schnettler et al. 2018b). The CFA conducted by these authors showed that the standardized factor loadings for all items on the three scales were above 0.5 and statistically significant, while the models had a good fit of the data (CFI = 0.96–0.99, RMSEA = 0.049–0.060). In addition, the three scales satisfied the average variance extracted (AVE) values (above to 0.5) and the discriminant validity of the SWLS, SWFoL and SWFaL was demonstrated in the samples of these studies (Schnettler et al. 2017a; Schnettler et al. 2017b; Schnettler et al. 2018b).

Both members of the couple were asked about their age. Women were asked about the number of family members and the number of children. Education level and occupation of the head of household were used to determine socioeconomic status (SES) (Adimark 2004).



## Data Analysis

We conducted descriptive analyses using SPSS v.23. To verify the one-factorial structure of each scale and test their psychometric properties, an exploratory factor analysis (EFA) was used and then a confirmatory factor analysis (CFA). The EFA was conducted separately with a subsample of men ( $n = 152$ ) and a subsample of women ( $n = 151$ ) obtained through the randomized procedure of the SPSS. The factors from each scale were extracted using a principal component analysis, considering eigenvalues greater than 1 (Hair et al. 2007). To determine the adequacy of the factor analysis, the KMO (Kaiser-Meyer-Olkin) test and Bartlett's test of sphericity were used.

The CFA with correlated latent constructs for each member of the couple was conducted with different subsamples of men ( $n = 151$ ) and women ( $n = 152$ ). The Omega coefficient was used to examine the internal consistency of the scales (McDonald 1970). We assessed convergent validity by inspecting the standardized factor loadings of each scale (ideally  $>0.5$ ) as well as their significance, and average variance extracted (AVE, values  $>0.5$ ) (Hair et al. 2007). Discriminant validity was obtained by comparing the AVE for each scale with the square of the correlation between the scales (Lévy and Varela 2006).

To test the hypotheses, the actor-partner interdependence model (APIM) with distinguishable dyads was assessed using structural equation modeling (SEM) (Kenny et al. 2006). The APIM utilizes the dyadic interaction as the unit of analysis (Kenny et al. 2006) so that the work-life balance levels of each partner were viewed as potentially associated with both partner's satisfaction with family and food-related life, as well as life in general. In the APIM framework, each dyad member is considered to be an actor as well as a partner in the analysis (Kenny et al. 2006). The relationships between the satisfaction with life, family life and food-related life of one member of the dyad with their own work-life balance are referred to as "actor effects" (spillover). The relationships between the levels the satisfaction with life, family life and food-related life of one member of the dyad with the work-life balance by the other member of the dyad are referred to as "partner effects" (crossover). The APIM controls for the extent to which one partner's work-life balance is affected by the other partner's work-life balance and vice versa through a correlation between independent variables of each member of the dyad (the male and female WLB). The APIM also include correlations between the residuals errors of the dependent variables of each member of the dyad, which controls for other sources of interdependence between partners (Kenny et al. 2006).

The CFA and SEM were conducted via MPlus 7.11. We estimated the parameters of the CFA and structural models via robust unweighted least squares (ULSMV). A polychoric correlation matrix was used to perform the SEM analysis, considering the ordinal scale of the items. We used the Tucker-Lewis index (TLI) and the comparative fit index (CFI) to determine the model fit of the data. Both the TLI and CFI indicated a good fit with a value above 0.95, while 0.90 was considered a cut-off point for establishing an acceptable fit. In addition, the root mean square error of approximation (RMSEA) was considered. The RMSEA is a poorness-of-fit measurement. A good fit is found when the value of the RMSEA is lower than 0.06, whereas an acceptable fit corresponds to a value lower than 0.08 (Hu and Bentler 1999; Marsh et al. 2005).

In order to control for the effects of age, number of children, number of family members and family SES in modeling the fit of the data, these variables with a direct effect on the dependent variables (SWLS, SWFoL and SWFaL) were incorporated.

Finally, we explored differences between spillover (actor WLB on their own satisfaction) and crossover (partner WLB on the other partner's satisfaction) effects according to the gender of the couple's members. We tested differences between both path coefficients via a structural equation model through 95% confidence intervals. Statistical differences were established when the confidence interval did not include zero.

## Results

### Sample Description

Table 1 shows sociodemographic characteristics of the sample consisting of 303 male and female dual-earners as well as their average SWLS, SWFoL, SWFL and WLB scores. The mean age of the female was 40.9 years, whereas the average age of the male was 43.2 years. The couples had an average of 4.3 family members and 2.4 children. In terms of SES, the majority of participants corresponded to middle-middle, lower-middle and low SES. The sample was composed of parents of adolescents aged 10–17 years and therefore was relatively homogeneous in terms of age. The sample had a higher average of family members and children per family (3.1 and 1.3, respectively) than Chilean families (INE 2018). In addition, the sample's greatest proportions of families belonged to the middle-middle and lower-middle SES (12.0%, 25.0%, respectively) and there was a lower presence of families belonging to the low SES (37.0%) than the Chilean population (AIM 2018).

Regarding differences between members of the couples, men were slightly older than women ( $p \leq 0.001$ ), while women had a slightly higher average score than the men on the WLB scale ( $p \leq 0.05$ ). Women and men did not differ in the average scores on the SWLS, SWFoL and SWFaL ( $p > 0.05$ ) (Table 1).

### Psychometric Properties of the Scales

The results of the EFA revealed that only one factor grouped the total items on each scale with eigenvalues greater than one, confirming the one-factor structure of each in the men and women subsamples (Table 2). The values from the KMO sample adequacy test were satisfactory in general, and those from Bartlett's test of sphericity were significant ( $p \leq 0.001$ ) (Hair et al. 2007).

Results for the CFA indicated that the measurement model of SWLS, SWFaL, SWFoL and WLB for women (Table 3) has an acceptable fit to the data (RMSEA = 0.063; CFI = 0.968; TLI = 0.963). The reliability of each scale is good with values of Omega coefficients between 0.877 and 0.919 and AVE values above 0.50. Discriminant validity is supported since all AVE values are greater than the square correlation between the scales. Convergent validity is supported by the size of factor loadings all statistically significant and with values above 0.7.

**Table 1** Sample characteristics ( $n = 303$ )

Characteristic	Total sample	P value <sup>1</sup>
Age [Mean (SD)]		
Woman	40.9 (7.4)	0.000
Man	43.2 (7.2)	
Number of family members [Mean (SD)]	4.3 (1.1)	
Number of children [Mean (SD)]	2.4 (1.0)	
Socioeconomic status (%)		
High and upper-middle	11.2	
Middle-Middle	20.8	
Lower-Middle	37.0	
Low	21.5	
Very low	9.6	
Satisfaction with life (SWLS) [Mean (SD)]		
Woman	24.9 (4.2)	0.295
Man	25.2 (3.9)	
Satisfaction with family life (SWFaL) [Mean (SD)]		
Woman	25.0 (4.5)	0.233
Man	25.4 (4.3)	
Satisfaction with food-related life (SWFoL) [Mean (SD)]		
Woman	23.5 (4.6)	0.052
Man	24.2 (4.1)	
Work-life Balance (WLB) [Mean (SD)]		
Woman	12.5 (2.2)	0.046
Man	12.1 (2.3)	

<sup>1</sup> Independent sample t-test

The measurement model of SWLS, SWFaL, SWFoL and WLB for men (Table 4) has a good fit to data (RMSEA = 0.057; CFI = 0.979; TLI = 0.975). The reliability of each scale is good with Omega coefficient values between 0.810 and 0.941 and AVE values above 0.50. Discriminant validity is supported since all AVE values are greater than the square correlation between the scales. Convergent validity is supported by the size of the factor loadings, all statistically significant and with values above 0.7.

## APIM Results

Having controlled for the effects of age, number of children, number of family members and family SES, the model that assessed the APIM association between both members of a couple's work-life balance and their levels of satisfaction with life, family life and food-related life had fit indices that showed a good fit with the data (CFI = 0.989; TLI = 0.987; RMSEA = 0.021).

A significant correlation (covariance) was discovered between the work-life balance of both members of the couple ( $r = 0.573$ ,  $p \leq 0.01$ ), as well as between the residual

**Table 2** Results of exploratory factor analysis for the Satisfaction with Life Scale (SWLS), Satisfaction with Family Life scale (SWFoL), Satisfaction with Food-related Life scale (SWFoL) and for the Work-life Balance scale (WLB)

	Women (n = 151)	Men (n = 152)
SWLS		
1. In most ways my life is close to my ideal	0.823	0.905
2. The conditions of my life are excellent	0.829	0.903
3. I am satisfied with my life	0.838	0.898
4. So far, I have gotten the important things I want in life	0.855	0.866
5. If I could live my life over, I would change almost nothing.	0.741	0.803
Variance explained (%)	66.694	76.697
KMO	0.850	0.896
Bartlett's Test of Sphericity, approximate Chi-square (p value)	364.979 (0.000)	561.463 (0.000)
SWFaL		
1. In most ways my family life is close to my ideal	0.879	0.921
2. The conditions of my family life are excellent	0.881	0.914
3. I am satisfied with my family life	0.888	0.910
4. So far, I have gotten the important things I want in family life	0.850	0.905
5. If I could live my family life over, I would change almost nothing	0.698	0.819
Variance explained (%)	70.917	79.994
KMO	0.878	0.901
Bartlett's Test of Sphericity, approximate Chi-square (p value)	450.353 (0.000)	655.039 (0.000)
SWFoL		
1. Food and meals are positive elements	0.791	0.871
2. I am generally pleased with my food	0.783	0.871
3. My life in relation to food and meals is close to ideal	0.877	0.772
4. With regard to food, the conditions of my life are excellent	0.832	0.769

Table 2 (continued)

	Women (n = 151)	Men (n = 152)
5. Food and meals give me satisfaction in daily life.	0.801	0.588
Variance explained (%)	66.798	61.023
KMO	0.818	0.789
Bartlett's Test of Sphericity, approximate Chi-square (p value)	390.364 (0.000)	333.805 (0.000)
WLB		
1. I manage to balance the demands of my work and personal/family life well	0.881	0.889
2. Nowadays, I seem to enjoy every part of my life equally well	0.907	0.881
3. I manage to balance the demands of my work and personal/family life well	0.872	0.873
Variance explained (%)	78.594	77.603
KMO	0.729	0.733
Bartlett's Test of Sphericity, approximate Chi-square (p value)	213.023 (0.000)	200.006 (0.000)

Extraction method: Principal component analysis, Measure of sampling adequacy: Keiser-Meyer-Olkin (KMO). Note: The remaining items should qualify the following standards; the eigenvalues of each extracted factor should be more than 1.000; the factor loadings of each reserved item should be more than 0.40; each item should be only loaded on a single factor; each factor should include at least 3 items

**Table 3** Factor loadings range, Omega coefficients, average variance extracted (AVE), and squared correlations between the Satisfaction with Food-related Life scale (SWFoL), Satisfaction with Family life scale (SWFaL), Work-life Balance scale (WLB) and Satisfaction with Life Scale (SWLS) in the women subsample

Scale	Loadings range (min - max)	Omega	AVE	SWFoL ( $r^2$ )	SWFaL ( $r^2$ )	WLB ( $r^2$ )
SWFoL	0.740–0.918	0.913	0.680			
SWFaL	0.728–0.876	0.917	0.688	0.256		
WLB	0.784–0.915	0.877	0.705	0.283	0.233	
SWLS	0.764–0.877	0.919	0.695	0.225	0.623	0.298

$r^2$ : squared correlation between scales

errors of each member of the couple's satisfaction with life ( $r = 0.219$ ,  $p \leq 0.01$ ), family life ( $r = 0.384$ ,  $p \leq 0.01$ ) and food-related life ( $r = 0.387$ ,  $p \leq 0.01$ ).

The results from the estimation of the structural model are shown in Table 5. The path coefficients indicate that a man's work-life balance was positively associated with their own levels of satisfaction with life ( $\gamma = 0.487$ ,  $p = 0.000$ ), family life ( $\gamma = 0.487$ ,  $p = 0.000$ ) and food-related life ( $\gamma = 0.463$ ,  $p = 0.000$ ), thus supporting the hypothesis that a male work-life balance associated positively with his life satisfaction (H1a), family life satisfaction (H2a) and food-related life satisfaction (H3a). Path coefficients also indicate that male work-life balance was positively associated with his female partner's levels of satisfaction with life ( $\gamma = 0.206$ ,  $p = 0.006$ ), family life ( $\gamma = 0.284$ ,  $p = 0.000$ ) and food-related life ( $\gamma = 0.215$ ,  $p = 0.005$ ). These results indicate that male employee work-life balance is positively associated with his partner's life satisfaction (H1b), family life satisfaction (H2b) and food-related life satisfaction (H3b).

Likewise, the path coefficients indicate that female work-life balance associates positively with their own levels of satisfaction with life ( $\gamma = 0.393$ ,  $p = 0.000$ ), family life ( $\gamma = 0.297$ ,  $p = 0.000$ ) and food related life ( $\gamma = 0.401$ ,  $p = 0.000$ ), thus supporting the hypothesis that female work-life balance is positively associated with her life satisfaction (H1a), family life satisfaction (H2a) and food-related life satisfaction (H3a). Path coefficients also indicate that female work-life balance was positively associated with her male partner's levels of family life ( $\gamma = 0.165$ ,  $p = 0.011$ ) and satisfaction with food-related life ( $\gamma = 0.162$ ,  $p = 0.019$ ) and, but not with his level of life satisfaction ( $\gamma = 0.136$ ,  $p = 0.072$ ). These results support that a female work-life balance is positively associated with her male partner's family life satisfaction (H2b)

**Table 4** Factor loadings range, Omega coefficients, average variance extracted (AVE), and squared correlations between the Satisfaction with Food-related Life scale (SWFoL), Satisfaction with Family life scale (SWFaL), Work-life Balance scale (WLB) and Satisfaction with Life Scale (SWLS) in the men subsample

Scale	Loadings range (min - max)	Omega	AVE	SWFoL ( $r^2$ )	SWFaL ( $r^2$ )	WLB ( $r^2$ )
SWFoL	0.727–0.906	0.910	0.671			
SWFaL	0.793–0.916	0.941	0.761	0.349		
WLB	0.861–0.936	0.920	0.793	0.356	0.328	
SWLS	0.765–0.904	0.930	0.729	0.328	0.719	0.297

$r^2$ : squared correlation between scales

**Table 5** The actor-partner interdependence model of the effect of work-life balance (WLB) on Satisfaction with Life (SWLS), Satisfaction with Family Life (SWFaL) and Satisfaction with Food-related Life (SWFoL) in dual-earner couples

	SWLS		SWFaL		SWFoL	
	Estimate	p value	Estimate	p value	Estimate	p value
<b>Man (actor)</b>						
WLB actor's effect (spillover)	0.487	0.000**	0.487	0.000**	0.463	0.000**
WLB partner's effect (woman crossover)	0.136	0.072	0.165	0.011*	0.162	0.019*
<b>Woman (actor)</b>						
WLB actor's effect (spillover)	0.393	0.000**	0.297	0.000**	0.401	0.000**
WLB partner's effect (man crossover)	0.206	0.006*	0.284	0.000**	0.215	0.004*

\* $p \leq 0.05$ \*\* $p \leq 0.01$ 

and food-related life satisfaction (H3b), but this did not support the expectation that female work-life balance would be positively associated with her male partner's life satisfaction (H1b).

Most of the control variables did not affect the model significantly (Table 6), except the man's age, which positively affected their satisfaction with food-related life ( $\gamma = 0.232, p = 0.025$ ), the number of family members that positively affected the woman's life satisfaction ( $\gamma = 0.160, p = 0.044$ ) and family SES. This control variable negatively affected the man's ( $\gamma = -0.145, p = 0.023$ ) and woman's ( $\gamma = 0.202, p = 0.001$ ) family life satisfaction as well as the woman's life satisfaction ( $\gamma = 0.233, p = 0.000$ ).

Regarding gender differences (Table 7), the effects of a man's WLB on his own SWLS, SWFoL and SWFaL (spillover effects) were significantly higher than the effects of a woman's WLB on the man's SWLS, SWFoL and SWFaL (crossover effects), given that the 95% confidence intervals do not contain zero. By contrast, the effects of a woman's WLB on her own SWLS, SWFoL and SWFaL (spillover effects) did not differ from the effects of a man's WLB on the woman's SWLS, SWFoL and SWFaL (95% confidence intervals do include zero).

## Discussion

Using the APIM approach, this study focused on exploring the spillover and crossover associations between WLB and subjective well-being in dual-earner couples. This study provides new insights into the balance between roles in work and the rest of life (Haar 2013; Haar et al. 2014), i.e.: our results go beyond the balance between work and family domains, which have received greater attention in the literature (Haar 2013). In addition, although there are previous studies showing evidence in favor of a spillover effect between WLB and well-being (Brough et al. 2014; Haar et al. 2014; Haar 2013; Lyness and Judiesch 2014; Lunau et al. 2014; Viñas-Bardolet et al. 2019), to the best of our knowledge this is the first study showing evidence in favor of crossover in couples. Consistent with the COR theory

**Table 6** Standardized effects estimates of control variables on Satisfaction with Life (SWLS), Satisfaction with Family Life (SWFaL) and Satisfaction with Food-related Life (SWFoL) in dual-earner couples

	Estimate	p value
Man's age → Man's SWLS	0.087	0.447
Man's age → Man's SWFaL	0.018	0.868
Man's age → Man's SWFoL	0.232	0.025 *
Woman's age → Woman's SWLS	-0.031	0.784
Woman's age → Woman's SWFaL	-0.046	0.686
Woman's age → Woman's SWFoL	-0.082	0.462
Number of children → Man's SWLS	-0.065	0.448
Number of children → Man's SWFaL	-0.019	0.824
Number of children → Man's SWFoL	0.036	0.667
Number of children → Woman's SWLS	-0.013	0.881
Number of children → Woman's SWFaL	0.036	0.683
Number of children → Woman's SWFoL	0.043	0.629
Number of family members → Man's SWLS	0.078	0.330
Number of family members → Man's SWFaL	0.092	0.282
Number of family members → Man's SWFoL	-0.014	0.848
Number of family members → Woman's SWLS	0.160	0.044 *
Number of family members → Woman's SWFaL	0.074	0.386
Number of family members → Woman's SWFoL	-0.021	0.827
SES → Man's SWLS	-0.127	0.054
SES → Man's SWFaL	-0.145	0.023 *
SES → Man's SWFoL	0.028	0.619
SES → Woman's SWLS	-0.233	0.000 **
SES → Woman's SWFaL	-0.202	0.001 **
SES → Woman's SWFoL	-0.067	0.296

\* $p \leq 0.05$ \*\* $p \leq 0.01$ 

(Hobfoll 1989, 2002), our results confirm a positive spillover between WLB and life satisfaction, as was previously reported by Haar et al. (2014) and Haar (2013). Likewise, our findings confirm a positive spillover between WLB and family satisfaction that coincide with what has been reported by Brough et al. (2014) and Viñas-Bardolet et al. (2019). In addition, as was hypothesized and consistent with the W-HR model (ten Brummelhuis and Bakker 2012), the present study also shows a positive spillover between WLB and satisfaction with food-related life in both family dyad members. This result is in line with reports demonstrating that problems in balancing work and home tasks are associated with an unhealthy diet (Devine et al. 2003, 2006; Liu et al. 2017; Melby and Takeda 2014; Pagnan et al. 2017), which negatively affects the satisfaction with food-related life (Bech-Larsen and Tsalis 2018; Schnettler et al. 2013, 2014; Schnettler et al. 2015a; Schnettler et al. 2015b; Schnettler et al. 2017a; Schnettler et al. 2018a), or vice versa.



**Table 7** Confidence intervals for the difference between spillover and crossover effects in both members of the couple

Effects differences	Lower 2.5%	Estimate	Upper 2.5%
(wWLB → Woman's SWLS) – (mWLB → Woman's SWLS)	-0.078	0.234	0.547
(wWLB → Man's SWLS) – (mWLB → Man's SWLS)	-0.767	-0.436	-0.106
(wWLB → Woman's SWFaL) – (mWLB → Woman's SWFaL)	-0.296	0.016	0.327
(wWLB → Man's SWFaL) – (mWLB → Man's SWFaL)	-0.702	-0.410	-0.118
(wWLB → Woman's SWFoL) – (mWLB → Woman's SWFoL)	-0.091	0.225	0.542
(wWLB → Man's SWFoL) – (mWLB → Man's SWFoL)	-0.699	-0.385	-0.071

wWLB: Woman's work-life balance. mWLB: Man's work-life balance. SWLS: Satisfaction with Life. SWFaL: Satisfaction with Family Life. SWFoL: Satisfaction with Food-related life

Consistent with the SCM (Bakker and Demerouti 2013), our results show the existence of bidirectional crossovers between both dual-earning partners (Westman and Bakker 2008). Our findings show a significant correlation between one partner's WLB and the other partner's satisfaction with family life and food-related life. This suggests that not only would a positive WLB contribute to individual well-being, but it would also enhance the well-being of the partner. However, it should be noted that according to Cohen (1988), the associations between one member of the dyad's WLB and their satisfaction with family life and food-related life were of medium strength or close to it. On the contrary, the crossover associations between the dyad were of low strength, thus suggesting that the spillover effect is stronger than the crossover effect in the associations tested in the present study. In addition, it is noteworthy that the associations between a man's WLB and his partner's life, family life and food-related life satisfaction were stronger than the associations between a woman's WLB and her partner's life, family life and food-related life satisfaction. This coincides with what was suggested by Liu and Cheung (2015): that both members of a couple may differ in terms of the strength or level of significance of the crossover relationships.

The positive crossover between WLB and satisfaction with family life among the couple is not a surprising finding, considering that a couple's lives (in particular dual-earner parents) are particularly interrelated and share many significant experiences and responsibilities, especially in the home and work domains (Matias et al. 2017b; Steiner and Krings 2016; ten Brummelhuis and Bakker 2012). Ferguson et al. (2012) concluded that a person's perceived success of work and family balance is related to their spouse's family satisfaction. We hypothesized this may be true vice versa and also when a wider approach of the interface between an employee's work and their other roles (WLB; Haar 2013) is measured, as in the present study. Therefore, as occurs with work-family enrichment (Steiner and Krings 2016), it is expected that higher WLB levels in both members of the couple will increase positive marital interactions, which in turn will increase the well-being of both members of the couple, especially in the family domain. Some examples of positive marital interactions which may be associated with both partner's higher WLB include individuals being more available to provide support for their partner, performing more housework, having more positive quality time to spend with their partner, being less irritable at home (Lavner and Clark

2017), also having better interactions with their children (Costigan et al. 2003; Sharif et al. 2017). This is consistent with the COR theory (Hobfoll 1989, 2002) and W-HR model, the framework of which provides support to suggest that both physical (e.g.: energy) and capital (e.g.: time) resources provided by a high WLB may facilitate the family role performance of one member of the couple, resulting in positive attitudinal outcomes in the home domain, such as family satisfaction, good relationships with family members and family commitment (ten Brummelhuis and Bakker 2012), which in turn crosses over to the other member of the couple.

Regarding the positive crossover between WLB and satisfaction with food-related life, one possible explanation may be associated with the woman's influence on the family food consumption (Rhodes et al. 2016). There are studies that have demonstrated that working women with higher balance between their work and home-related tasks are more likely to have frequently family meals, plan the meals, cook home-made foods and serve healthier meals to their families (Agrawal et al. 2018; Brannen et al. 2013; Bauer et al. 2012; Hearst et al. 2012; Devine et al. 2003; Monsivais et al. 2014; Pagnan et al. 2017; Pearson et al. 2017), thereby positively influencing her partner's food-related life satisfaction. Also, couples with higher balance between their work and home-related tasks tend to be more involved in their children's food habits (Sharif et al. 2017), which has been related to both parents' satisfaction with food-related life (Schnettler et al. 2017a; Schnettler et al. 2018a). In parallel, it is conceivable that men who experience higher WLB levels may dedicate time to helping their partner with the food shopping, meal planning and cooking, positively influencing his and his partner's satisfaction with food-related life. Although future studies are necessary, it is remarkable that a recent study associated a person's cooking knowledge and experience with greater satisfaction with food-related life (Bech-Larsen and Tsalis 2018). This is also consistent with the COR theory (Hobfoll 1989, 2002) and W-HR model, given that it is possible that physical (e.g.: energy), capital (e.g.: time and money) and intellectual (e.g.: knowledge) resources provided by a high WLB may facilitate the food role performance of one member of the couple, resulting in positive production outcomes in the home domain, such as an efficient performance of household tasks including food and meal preparation (ten Brummelhuis and Bakker 2012), which in turn crosses over to the other member of the couple. However, food-related life satisfaction is not only about nutrition and cooking healthy foods; it is also associated with family interaction in regard to mealtimes (Schnettler et al. 2013; Schnettler et al. 2017a). Family meals have shown to be crucial in healthy interaction, preserving relationships, resolving conflicts, and providing emotional support and affection (Salvy et al. 2017; Speirs et al. 2016). Considering that couples who experience higher balance between their work and home-related tasks are likely to have more frequent family meals (Bauer et al. 2012; Devine et al. 2003; Monsivais et al. 2014), both members of the couple could experience the affective dimension of meals (Salvy et al. 2017; Speirs et al. 2016).

However, our findings show only a unidirectional crossover from a man's WLB to his partner's life satisfaction, whereas a man's life satisfaction was not associated with his partners' WLB. This coincides with what has been reported regarding asymmetric crossover patterns among couples (Liu and Cheung 2015; Westman et al. 2004). Considering that some authors suggest that men may not be as sensitive as women to their partners' stress experiences (Liu and Cheung 2015), it could also be possible that a

man's overall life satisfaction is more likely to be less sensitive to his partners' WLB, and thus a better WLB for a woman does not necessarily influence her partner's overall life satisfaction.

Nevertheless, although we previously stressed that spillover effects were stronger than crossover effects in the relationship between WLB and family and food-related satisfaction, the gender comparison allows us to suggest that different gender patterns may exist in the relationship between WLB and the three types of satisfaction in dual-earner couples. In fact, while a man's WLB association with his own satisfaction with life, family life and food-related life were significantly higher than the association with the woman's WLB, the woman's satisfaction with life, family life and food-related life would be equally associated with her own WLB and her partner's WLB. In the case of women, this means that they are equally susceptible to the contextual influences of their own WLB as well as their partner's, whereas in the case of men they seem to be more susceptible to the contextual influences of their own WLB. One explanation for the women may be the possibility that a higher WLB brings them the opportunity to perform better in the family and food domains, while enjoying life at the same time. However, in parallel, higher levels of WLB in their male partners may mean their greater participation in family and food-related tasks, which in turn may decrease their own demands in terms of such activities. In other respects, the stronger association between the men's satisfactions and their own WLB may be related to the fact that men are considered breadwinners for the family and their paid work is viewed as evidence of their masculinity (Xu et al. 2019). Therefore, it is possible to hypothesize that if they are capable of performing well at work as well as achieving a balance with the rest of their life their masculinity is reinforced, which in turn may positively influence their overall life satisfaction and also satisfaction in the food and family domains. Nevertheless, it is also possible that these results relate to the cultural context of the present study in that traditional family structures still prevail in Latin America, where men remain the main breadwinners and women must bear more responsibilities to keep their work from intruding into family life (Matias et al. 2017a). Therefore, further research is required in countries or cultures with a different family structure. In addition, given there is evidence that the strength of spillover and crossover between the work and family domains are dependent on the consistency in gender role attitudes and behaviors within, and agreement between, individuals and couples, respectively (Kramer et al. 2019), future studies should also address these variables in the relationships between WLB and well-being in dual earner couples.

A limitation of our methodology is its cross-sectional design, which does not allow determining causal relationships. Therefore, future studies must consider longitudinal designs to test for causality. The non-probabilistic nature of the sample and its relatively small size are also limitations, and it was also limited only to families with adolescent children, so results should not be generalized to families in other life cycle stages. In addition, the sample was not representative of the Chilean population in terms of the participant's age, number of family members, children per family or SES. The larger family size may affect the results, considering that this variable has been related to more family demands associated with having children (Perry-Jenkins et al. 2000), which may decrease the parents' WLB. At the same time, in developed countries low levels of life and family life satisfaction have been reported in working parents with children, while in Latin American countries the presence of children has been associated with higher

levels of well-being in working parents (Terrazas-Carrillo et al. 2016). Therefore, our results regarding life and family satisfaction may have been influenced by the cultural differences regarding family and parenthood in Latin American culture (Terrazas-Carrillo et al. 2016). In addition, the greater proportions of families belonging to the middle-middle and lower-middle SES and the lower presence of families belonging to the low SES than the Chilean population may have affected the results of the present study, given that higher SES has been related to higher levels of life, food-related life (Schnettler et al. 2015b) and family life satisfaction (Frasquilho et al. 2017). Therefore, future studies should include samples with a composition similar to the country's family composition and socioeconomic status. In addition, the study was conducted in only one country; cross-cultural analysis should thus be performed in future studies, as culture affects the association between having children and well-being (Terrazas-Carrillo et al. 2016) and the influence of gender roles (Shockley et al. 2017), which may also affect WLB.

Furthermore, data were self-reported, so there is room for results to be affected by social desirability. Also, while the paper discussed the potential relationship between satisfaction with food-related and family life and frequency of family meals, participants were not asked about the frequency of family meals. Therefore, future studies should verify these associations. Additionally, couples were not asked about their type of employment nor the number of working hours, so WLB could not be associated to actual job conditions. As well, couples were not asked about their relationship duration or the age of the youngest child. Future studies must analyze these variables, as they likely affect balance between work and family in working parents (Matias et al. 2017a; Paulin et al. 2017; Yucel 2017b, 2018). Finally, quality of diet was not analyzed, which may differ according to balance between work and family (Blake et al. 2009; Hearst et al. 2012; Monsivais et al. 2014). Therefore, it is possible that the aforementioned variables may also affect the levels of WLB in dual-earner couples.

These limitations notwithstanding, this is the first study that analyzes spillover and crossover associations as they relate to WLB and satisfaction with life, food-related life and family life in dual-earner couples. We used the APIM approach to analyze data at the dyadic level to analyze both members of the couple simultaneously. Therefore, our results are a crucial contribution to the literature regarding the crossover of positive experiences, such as the concepts of life satisfaction (Demerouti et al. 2001, 2005) and happiness (Rodríguez-Muñoz et al. 2014), which have received considerably less attention than those studies focusing on the crossover of negative experiences (Rodríguez-Muñoz et al. 2014; Steiner and Krings 2016). Therefore, a research implication is the need to distinguish variables that may enhance the level of WLB, not only in samples including dual-earner couples but also in parent-child dyads.

The reciprocal associations of WLB between dual-earner couples detected in this study may have also practical implications for both individuals and organizations. Organizational efforts should be made to promote WLB in employees of both gender, which in turn may enhance workers' satisfaction with life, family life and food-related, thus positively affecting that of their partners. However, it seems that in Latin American countries, special emphasis should be placed on increasing the WLB of men belonging to dual-earner couples, because of their greater relationship with their own well-being and their important influence on the women's well-being. This is also relevant considering that promoting employees' WLB may not only improve their emotional well-

being, but also enhance the quality of the couple's diet and that of their children and protect them from health-related problems including overweight and obesity through more frequent family meals (Hebestreit et al. 2017; Schnettler et al. 2018a; Watts et al. 2017). In this regard, some workplace characteristics are relevant, such as flexibility and perceived control over an employees' own schedule (Pagnan et al. 2017), as mechanisms that make it possible to improve work-life balance.

## Conclusions

Based on an analysis using the APIM approach, positive spillovers were found between work-life balance and family and food-related life satisfaction, as well as life satisfaction in general, in both members of dual-earner couples. In addition, bidirectional crossovers between both members of the couples were found, between the success one person's work-life balance and their partner's family and food-related life satisfaction. By contrast, only a unidirectional crossover from a man's work-life balance to his partner's life satisfaction was obtained, which indicates an asymmetric crossover pattern. There must be future research analyzing spillover-crossover associations between work-life balance and satisfaction in other life domains, such as between work and leisure, as well as between satisfaction with life, food-related and family life and other variables related to families, such as the mental health of both members of the couple. In addition, future research should also explore possible moderators and mediators of these associations.

**Author Contributions** BSch conceived of and wrote the first manuscript draft, approved the statistical analysis and the final version of the manuscript. EM-Z guided the statistical analysis and made a critical analysis of the final version of the manuscript. GL and CH supervised data collection and made a critical analysis of the final version of the manuscript. ML and KG made a critical analysis of the final version of the manuscript. All authors read and approved the final manuscript.

**Funding Information** This study was funded by Conicyt, Fondecyt Project n° 1160005 and Fondecyt Project n° 1190017.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

## References

- Adimark. (2004). Mapa Socioeconómico de Chile. Retrieved from: <http://www.adimark.cl>. Accessed 30 December 2015.
- André, B., Canhão, H., Espnes, G. A., Rodrigues, A. M. F., Gregorio, M. J., Nguyen, C., Sousa, R., & Grønning, K. (2017). Is there an association between food patterns and life satisfaction among Norway's inhabitants ages 65 years and older? *Appetite, 110*, 108–115. <https://doi.org/10.1016/j.appet.2016.12.016>.

- Agrawal, T., Farrell, T. J., Wethington, E., & Devine, C. M. (2018). “Doing our best to keep a routine:” how low-income mothers manage child feeding with unpredictable work and family schedules. *Appetite*, *120*, 57–66. <https://doi.org/10.1016/j.appet.2017.08.010>.
- Asociación Investigadores de Mercado (AIM). (2018). Nueva metodología de segmentación y clasificación socioeconómica [https://www.pauta.cl/pauta/site/docs/20180622/20180622170601/aim\\_nuevo\\_gse\\_2018.pdf](https://www.pauta.cl/pauta/site/docs/20180622/20180622170601/aim_nuevo_gse_2018.pdf) Accessed 2nd August 2019.
- Bakker, A. B., & Demerouti, E. (2013). The spillover-crossover model. In J. G. Grzywacz & E. Demerouti (Eds.), *Current issues in work and organizational psychology: New frontiers in work and family research* (pp. 55–70). New York: Psychology Press.
- Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An expansionist theory. *American Psychologist*, *56*, 781–796.
- Bauer, K. W., Hearst, M. O., Escoto, K., Berge, J. M., & Neumark-Sztainer, D. (2012). Parental employment and work-family stress: Associations with family food environments. *Social Science & Medicine*, *75*(3), 496–504. <https://doi.org/10.1016/j.socscimed.2012.03.026>.
- Bech-Larsen, T., & Tsalis, G. (2018). Impact of cooking competence on satisfaction with food-related life: Construction and validation of cumulative experience & knowledge scales. *Food Quality and Preference*, *68*, 191–197. <https://doi.org/10.1016/j.foodqual.2018.02.006>.
- Blake, C. E., Devine, C. M., Wethington, E., Jastran, M., Farrell, T. J., & Bisogni, C. A. (2009). Employed parents’ satisfaction with food-choice coping strategies. Influence of gender and structure. *Appetite*, *52*(3), 711–719. <https://doi.org/10.1016/j.appet.2009.03.011>.
- Block, L. G., Grier, S. A., Childers, T. L., Davis, B., Ebert, J. E., Kumanyika, S., et al. (2011). From nutrients to nurturance: A conceptual introduction to food well-being. *Journal of Public Policy & Marketing*, *30*(1), 5–13. <https://doi.org/10.1509/jppm.30.1.5>.
- Brannen, J., O’Connell, R., & Mooney, A. (2013). Families, meals and synchronicity: Eating together in British dual earner families. *Community, Work & Family*, *16*(4), 417–434. <https://doi.org/10.1080/13668803.2013.776514>.
- Brough, P., Timms, C., O’Driscoll, M. P., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2014). Work–life balance: A longitudinal evaluation of a new measure across Australia and New Zealand workers. *The International Journal of Human Resource Management*, *25*(19), 2724–2744. <https://doi.org/10.1080/09585192.2014.899262>.
- Bublitz, M. G., Peracchio, L. A., Andreasen, A. R., Kees, J., Kidwell, B., Miller, E. G., et al. (2013). Promoting positive change: Advancing the food well-being paradigm. *Journal of Business Research*, *66*(8), 1211–1218.
- Calvo, A., Tartakowsky, A., & Maffei, T. (2011). Transformaciones en las estructuras familiares en Chile. Retrieved from: <http://www.ministeriodesarrollosocial.gob.cl/btca/txtcompleto/mideplan/transformac.fam.chilenas.pdf>. Accessed 05 July 2017.
- Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work—Family balance more than conflict and enrichment? *Human Relations*, *62*(10), 1459–1486. <https://doi.org/10.1177/0018726709336500>.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale: Erlbaum.
- Comisión Nacional de Productividad (CNP). (2017). Mujeres en el mundo laboral: Un aporte para Chile. Más oportunidades, crecimiento y bienestar. Retrieved from: [http://www.comisiondeproductividad.cl/wp-content/uploads/2017/09/Participacion\\_Laboral\\_Femenina\\_26\\_septiembre.pdf](http://www.comisiondeproductividad.cl/wp-content/uploads/2017/09/Participacion_Laboral_Femenina_26_septiembre.pdf) Accessed 13 April 2018.
- Costigan, C. L., Cox, M. J., & Cauce, A. M. (2003). Work-parenting linkages among dual-earner couples at the transition to parenthood. *Journal of Family Psychology*, *17*, 397–408. <https://doi.org/10.1037/0893-3200.17.3.397>.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, *86*, 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>.
- Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2005). Spillover and crossover of exhaustion and life satisfaction among dual-earner parents. *Journal of Vocational Behavior*, *67*(2), 266–289. <https://doi.org/10.1016/j.jvb.2004.07.001>.
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71–75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13).
- Devine, C. M., Connors, M. M., Sobal, J., & Bisogni, C. A. (2003). Sandwiching it in: Spillover of work onto food choices and family roles in low-and moderate-income urban households. *Social Science & Medicine*, *56*(3), 617–630. [https://doi.org/10.1016/S0277-9536\(02\)00058-8](https://doi.org/10.1016/S0277-9536(02)00058-8).
- Devine, C. M., Jastran, M., Jabs, J., Wethington, E., Farrell, T. J., & Bisogni, C. A. (2006). “A lot of sacrifices”: Work-family spillover and the food-choice coping strategies of income employed parents. *Social Science and Medicine*, *63*, 2591–2603. <https://doi.org/10.1016/j.socscimed.2006.06.029>.

- Emanuel, F., Molino, M., Lo Presti, A., Spagnoli, P., & Ghislieri, C. (2018). A crossover study from a gender perspective: The relationship between job insecurity, job satisfaction and partners' family life satisfaction. *Frontiers in Psychology, 9*, 1481. <https://doi.org/10.3389/fpsyg.2018.01481>.
- Fan, W., Lam, J., Moen, P., Kelly, E., King, R., & McHale, S. (2015). Constrained choices? Linking employees' and spouses' work time to health behaviors. *Social Science & Medicine, 126*, 99–109. <https://doi.org/10.1016/j.socscimed.2014.12.015>.
- Ferguson, M., Carlson, D. S., Zivnuska, S., & Whitten, D. (2012). Support at work and home: The path to satisfaction through balance. *Journal of Vocational Behavior, 80*(2), 299–307. <https://doi.org/10.1016/j.jvb.2012.01.001>.
- Frasquilho, D., de Matos, M. G., Marques, A., Gaspar, T., & Caldas-de-Almeida, J. M. (2017). Factors affecting the well-being of adolescents living with unemployed parents in times of economic recession: Findings from the Portuguese HBSC study. *Public Health, 143*, 17–24. <https://doi.org/10.1016/j.puhe.2016.10.003>.
- Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 13–162). Washington, DC: American Psychological Association.
- Goode, W. J. (1960). A theory of role strain. *American Sociological Review, 25*, 483–496. <https://doi.org/10.2307/2092933>.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*(1), 76–88. <https://doi.org/10.2307/258214>.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review, 31*(1), 72–92. <https://doi.org/10.5465/amr.2006.19379625>.
- Greenhaus, J., & Allen, T. (2011). Work-family balance: A review and extension of the literature. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (2nd ed.). Washington, DC: American Psychological Association.
- Grunert, K. G., Dean, M., Raats, M. M., Nielsen, N. A., & Lumbers, M. (2007). A measure of satisfaction with food-related life. *Appetite, 49*(2), 486–493. <https://doi.org/10.1016/j.appet.2007.03.010>.
- Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing work-family balance: Implications for practice and research. *Advances in Developing Human Resources, 9*, 455–471. <https://doi.org/10.1177/1523422307305487>.
- Haar, J. M. (2013). Testing a new measure of work-life balance: A study of parent and non-parent employees from New Zealand. *The International Journal of Human Resource Management, 24*(17), 3305–3324. <https://doi.org/10.1080/09585192.2013.775175>.
- Haar, J. M., Russo, M., Suñe, A., & Ollier-Malaterre, A. (2014). Outcomes of work-life balance on job satisfaction, life satisfaction and mental health: A study across seven cultures. *Journal of Vocational Behavior, 85*(3), 361–373. <https://doi.org/10.1016/j.jvb.2014.08.010>.
- Hebestreit, A., Intemann, T., Siani, A., De Henauf, S., Eiben, G., Kourides, Y. A., Kovacs, E., Moreno, L. A., Veidebaum, T., Krogh, V., & Pala, V. (2017). Dietary patterns of European children and their parents in association with family food environment: Results from the I. *Family Study. Nutrients, 9*, 126. <https://doi.org/10.3390/nu9020126>.
- Hearst, M. O., Sevcik, S., Fulkerson, J. A., Pasch, K. E., Harnack, L. J., & Lytle, L. A. (2012). Stressed out and overcommitted! The relationships between time demands and family rules and parents' and their child's weight status. *Health Education & Behavior, 39*(4), 446–454. <https://doi.org/10.1177/1090198111426453>.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524. <https://doi.org/10.1037/0003-066X.44.3.513>.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6*(4), 307–324. <https://doi.org/10.1037/1089-2680.6.4.307>.
- Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>.
- Hair, J., Anderson, R., Tatham, R., & Black, W. (2007). *Análisis multivariante*. Madrid: Prentice Hall International, Inc..
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55. <https://doi.org/10.1080/10705519909540118>.

- INE (Instituto Nacional de Estadísticas). (2018). Censo de Población y Vivienda 2017. INE. RedAtam Web server. Retrieved from: [https://redatam-ine.ine.cl/redbin/RpWebEngine.exe/Portal?BASE=CENSO\\_2017&lang=esp](https://redatam-ine.ine.cl/redbin/RpWebEngine.exe/Portal?BASE=CENSO_2017&lang=esp) Accessed 05 August 2019.
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: Foundations of hedonic psychology*. Russell Sage Foundation.
- Kahneman, D., Schkade, D. A., Fischler, C., Krueger, A. B., & Krilla, A. (2010). The structure of well-being in two cities: Life satisfaction and experienced happiness in Columbus, Ohio; and Rennes, France. In E. Diener, J. Helliwell, & D. Kahneman (Eds.), *International differences in well-being* (pp. 16–33). Oxford: Oxford University Press.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.
- Kerr, M. E., & Bowen, M. (1988). *Family evaluation*. New York: W.W. Norton.
- Kramer, K. Z., Bae, H., Huh, C. A., & Pak, S. (2019). The positive spillover and crossover of paternity leave use: A dyadic longitudinal analysis. *Journal of Vocational Behavior*, *115*, 103310. <https://doi.org/10.1016/j.jvb.2019.05.007>.
- Lamu, A. N., & Olsen, J. A. (2018). Yes, health is important, but as much for its importance via social life: The direct and indirect effects of health on subjective well-being in chronically ill individuals. *Health Economics*, *27*(1), 209–222. <https://doi.org/10.1002/hec.3536>.
- Lavner, J. A., & Clark, M. A. (2017). Workload and marital satisfaction over time: Testing lagged spillover and crossover effects during the newlywed years. *Journal of Vocational Behavior*, *101*, 67–76. <https://doi.org/10.1016/j.jvb.2017.05.002>.
- Lévy, J. P., & Varela, J. (2006). *Modelización con estructuras de covarianzas en ciencias sociales: temas esenciales, avanzados y aportaciones especiales* (2th ed.). Madrid: Netbiblo.
- Liu, Y., Song, Y., Koopmann, J., Wang, M., Chang, C. H. D., & Shi, J. (2017). Eating your feelings? Testing a model of employees' work-related stressors, sleep quality, and unhealthy eating. *Journal of Applied Psychology*, *102*(8), 1237–1258. <https://doi.org/10.1037/apl0000209>.
- Liu, H., & Cheung, F. M. (2015). Testing crossover effects in an actor-partner interdependence model among Chinese dual-earner couples. *International Journal of Psychology*, *50*(2), 106–114. <https://doi.org/10.1002/ijop.12070>.
- Lobos, G., Grunert, K. G., Bustamante, M., & Schnettler, B. (2016). With health and good food, great life! Gender differences and happiness in Chilean rural older adults. *Social Indicators Research*, *127*(2), 865–885. <https://doi.org/10.1007/s11205-015-0971-0>.
- Lobos, G., Schnettler, B., Grunert, K. G., & Adasme, C. (2017). Perceived resources as a predictor of satisfaction with food-related life among Chilean elderly: An approach with generalized linear models. *The Journal of Nutrition, Health & Aging*, *21*(10), 1240–1249. <https://doi.org/10.1007/s12603-017-0901-8>.
- Lyness, K. S., & Judiesch, M. K. (2014). Gender egalitarianism and work–life balance for managers: Multisource perspectives in 36 countries. *Applied Psychology*, *63*, 96–129. <https://doi.org/10.1111/apps.12011>.
- Lu, C. Q., Lu, J. J., Du, D. Y., & Brough, P. (2016). Crossover effects of work–family conflict among Chinese couples. *Journal of Managerial Psychology*, *31*(1), 235–250. <https://doi.org/10.1108/JMP-09-2012-0283>.
- Lunau, T., Bamba, C., Eikemo, T. A., van Der Wel, K. A., & Dragano, N. (2014). A balancing act? Work–life balance, health and well-being in European welfare states. *The European Journal of Public Health*, *24*(3), 422–427. <https://doi.org/10.1093/eurpub/cku010>.
- Macht, M., Haupt, C., & Salewsky, A. (2004). Emotions and eating in everyday life: Application of the experience-sampling method. *Ecology of Food and Nutrition*, *43*, 327–337.
- Macht, M., Meininger, J., & Roth, J. (2005). The pleasures of eating: A qualitative analysis. *Journal of Happiness Studies*, *6*, 137–160. <https://doi.org/10.1007/s10902-005-0287-x>.
- Maier, I. B., Özel, Y., Wagnerberger, S., Bischoff, S. C., & Bergheim, I. (2013). Dietary pattern and leisure time activity of overweight and normal weight children in Germany: Sex-specific differences. *Nutrition Journal*, *15*(1), 12–14. <https://doi.org/10.1186/1475-2891-12-14>.
- Marsh, H. W., Hau, K. T., & Grayson, D. (2005). Goodness of fit evaluation in structural equation modeling. In A. Maydeu-Olivares, and J. McArdle (Eds.), *Contemporary psychometrics. A Festschrift for Roderick P. McDonald*. Mahwah NJ: Erlbaum. 275–340.
- Matias, M., Ferreira, T., Vieira, J., Cadima, J., Leal, T., & Matos, P. (2017a). Work–family conflict, psychological availability, and child emotion regulation: Spillover and crossover in dual-earner families. *Personal Relationships*, *24*(3), 623–639. <https://doi.org/10.1111/perc.12198>.
- Matias, M., Ferreira, T., Vieira, J., Cadima, J., Leal, T., & Matos, P. (2017b). Workplace family support, parental satisfaction, and work–family conflict: Individual and crossover effects among dual-earner couples. *Applied Psychology*, *66*(4), 628–652. <https://doi.org/10.1111/apps.12103>.



- McDonald, R. P. (1970). Theoretical foundations of principal factor analysis, canonical factor analysis, and alpha factor analysis. *The British Journal of Mathematical and Statistical Psychology*, 23, 1–21. <https://doi.org/10.1111/j.2044-8317.1970.tb00432.x>.
- Minnotte, K. L., & Yucel, D. (2018). Work–family conflict, job insecurity, and health outcomes among US workers. *Social Indicators Research*, 139(2), 517–540. <https://doi.org/10.1007/s11205-017-1716-z>.
- Melby, M. K., & Takeda, W. (2014). Lifestyle constraints, not inadequate nutrition education, cause gap between breakfast ideals and realities among Japanese in Tokyo. *Appetite*, 72, 37–49. <https://doi.org/10.1016/j.appet.2013.09.013>.
- Monsivais, P., Aggarwal, A., & Drewnowski, A. (2014). Time spent on home food preparation and indicators of healthy eating. *American Journal of Preventive Medicine*, 47(6), 796–802. <https://doi.org/10.1016/j.amepre.2014.07.033>.
- Mugel, O., Gurviez, P., & Decrop, A. (2019). Eudaimonia around the kitchen: A hermeneutic approach to understanding food well-being in consumers' lived experiences. *Journal of Public Policy & Marketing*, 38(2), 280–295. <https://doi.org/10.1177/0743915618825267>.
- Pagnan, C. E., Seidel, A., & MacDermid, S. (2017). I just can't fit it in! Implications of the fit between work and family on health-promoting behaviors. *Journal of Family Issues*, 38(11), 1577–1603. <https://doi.org/10.1177/0192513X16631016>.
- Pattusamy, M., & Jacob, J. (2017). The mediating role of family-to-work conflict and work-family balance in the relationship between family support and family satisfaction: A three path mediation approach. *Current Psychology*, 36(4), 812–822. <https://doi.org/10.1007/s12144-016-9470-y>.
- Paulin, M., Lachance-Grzela, M., & McGee, S. (2017). Bringing work home or bringing family to work: Personal and relational consequences for working parents. *Journal of Family and Economic Issues*, 38(4), 463–476. <https://doi.org/10.1007/s10834-017-9524-9>.
- Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3(2), 137–152. <https://doi.org/10.1080/17439760701756946>.
- Pinto, J., & Barra, E. (2015). Conflicto trabajo-familia y bienestar psicológico en trabajadores de empresas industriales de Chile. *Revista Peruana de Psicología y Trabajo Social*, 4(1), 15–24.
- Pearson, N., Griffiths, P., Biddle, S. J., Johnston, J. P., & Haycraft, E. (2017). Individual, behavioural and home environmental factors associated with eating behaviours in young adolescents. *Appetite*, 112, 35–43. <https://doi.org/10.1016/j.appet.2017.01.001>.
- Peltzer, K., & Pengpid, S. (2017). Dietary behaviors, psychological well-being, and mental distress among university students in ASEAN. *Iranian Journal of Psychiatry and Behavioral Sciences*, 11(2), e10118.
- Perry-Jenkins, M., Repetti, R. L., & Crouter, A. C. (2000). Work and family in the 1990s. *Journal of Marriage and Family*, 62(4), 981–998. <https://doi.org/10.1111/j.1741-3737.2000.00981.x>.
- Pleck, J. H. (1977). The work-family role system. *Social Problems*, 24(4), 417–427.
- Premeaux, S. F., Adkins, C. L., & Mossholder, K. W. (2007). Balancing work and family: A field study of multi-dimensional, multi-role work-family conflict. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 28(6), 705–727. <https://doi.org/10.1002/job.439>.
- Rhodes, K., Chan, F., Prichard, I., Coveney, J., Ward, P., & Wilson, C. (2016). Intergenerational transmission of dietary behaviours: A qualitative study of Anglo-Australian, Chinese-Australian and Italian-Australian three-generation families. *Appetite*, 103, 309–317. <https://doi.org/10.1016/j.appet.2016.04.036>.
- Rodríguez-Muñoz, A., Sanz-Vergel, A. I., Demerouti, E., & Bakker, A. B. (2014). Engaged at work and happy at home: A spillover–crossover model. *Journal of Happiness Studies*, 15(2), 271–283. <https://doi.org/10.1007/s10902-013-9421-3>.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>.
- Salvy, S. J., Miles, J. N., Shih, R. A., Tucker, J. S., & D'Amico, E. J. (2017). Neighborhood, family and peer-level predictors of obesity-related health behaviors among young adolescents. *Journal of Pediatric Psychology*, 42(2), 153–161. <https://doi.org/10.1093/jpepsy/jsw035>.
- Schnettler, B., Miranda, H., Sepúlveda, J., & Denegri, M. (2011). Satisfacción con la alimentación y la vida, un estudio exploratorio en estudiantes de la Universidad de La Frontera, Temuco- Chile. *Psicología & Sociedad*, 23(2), 426–435. <https://doi.org/10.1590/S0102-71822011000200024>.
- Schnettler, B., Peña, J. P., Mora, M., Miranda, H., Sepúlveda, J., Denegri, M., & Lobos, G. (2013). Estilos de vida en relación a la alimentación y hábitos alimentarios dentro y fuera del hogar en la Región Metropolitana de Santiago, Chile. *Nutrición Hospitalaria*, 28(4), 1266–1273. <https://doi.org/10.3305/nh.2013.28.4.6465>.

- Schnettler, B., Denegri, M., Miranda, H., Sepúlveda, J., Mora, M., & Lobos, G. (2014). Satisfaction with life and with food-related life in Central Chile. *Psicothema*, *26*(2), 200–206. <https://doi.org/10.7334/psicothema2013.13>.
- Schnettler, B., Lobos, G., Orellana, L., Grunert, K. G., Sepúlveda, J., Mora, M., Denegri, M., & Miranda, H. (2015a). Analyzing food-related life satisfaction and other predictors of life satisfaction in Central Chile. *The Spanish Journal of Psychology*, *18*, 1–14. <https://doi.org/10.1017/sjp.2015.32>.
- Schnettler, B., Miranda, H., Lobos, G., Orellana, L., Sepúlveda, J., Denegri, M., Etchebabe, S., Mora, M., & Grunert, K. G. (2015b). Eating habits and subjective well-being. *A typology of students in Chilean state universities*. *Appetite*, *89*, 203–214. <https://doi.org/10.1016/j.appet.2015.02.008>.
- Schnettler, B., Lobos, G., Miranda-Zapata, E., Denegri, M., Ares, G., & Hueche, C. (2017a). Diet quality, satisfaction with life, family life and food-related life across families: A cross-sectional pilot study with mother-father-adolescent triads. *International Journal of Environmental Research and Public Health*, *14*(11), 1313. <https://doi.org/10.3390/ijerph14111313>.
- Schnettler, B., Miranda-Zapata, E., Grunert, K. G., Lobos, G., Denegri, M., Hueche, C., & Poblete, H. (2017b). Life satisfaction of university students in relation to family and food in a developing country. *Frontiers in Psychology*, *8*, 1522. <https://doi.org/10.3389/fpsyg.2017.01522>.
- Schnettler, B., Grunert, K. G., Lobos, G., Miranda-Zapata, E., Denegri, M., & Hueche, C. (2018a). Maternal food-related practices, quality of diet and well-being: Profiles of Chilean mother-adolescent dyads. *Journal of Nutrition Education and Behavior*, *50*(8), 776–787. <https://doi.org/10.1016/j.jneb.2018.03.003>.
- Schnettler, B., Grunert, K. G., Lobos, G., Miranda-Zapata, E., Denegri, M., & Hueche, C. (2018b). Exploring relationships between family food behaviour and well-being in single-headed and dual-headed households with adolescent children. *Current Psychology (in press)*. <https://doi.org/10.1007/s1214>.
- Schnettler, B., Miranda-Zapata, E., Lobos, G., Saracosti, M., Denegri, M., Lapo, M., & Hueche, C. (2018c). The mediating role of family and food-related life satisfaction in the relationships between family support, parent work-life balance and adolescent life satisfaction in dual-earner families. *International Journal of Environmental Research and Public Health*, *15*(11), 2549. <https://doi.org/10.3390/ijerph15112549>.
- Scott, M. L., & Vallen, B. (2019). Expanding the lens of food well-being: An examination of contemporary marketing, policy, and practice with an eye on the future. *Journal of Public Policy & Marketing*, *38*(2), 127–135. <https://doi.org/10.1177/0743915619831647>.
- Sharif, M. Z., Alcalá, H. E., Albert, S. L., & Fischer, H. (2017). Deconstructing family meals: Do family structure, gender and employment status influence the odds of having a family meal? *Appetite*, *114*, 187–193. <https://doi.org/10.1016/j.appet.2017.03.032>.
- Shockley, K. M., Douek, J., Smith, C. R., Peter, P. Y., Dumani, S., & French, K. A. (2017). Cross-cultural work and family research: A review of the literature. *Journal of Vocational Behavior*, *101*, 1–20. <https://doi.org/10.1016/j.jvb.2017.04.001>.
- Siu, O., Lu, J., Brough, P., Lu, C., Bakker, A. B., Kalliath, T., O'Driscoll, M., Phillips, D. R., Chen, W., Lo, D., Cit, S., & Shi, K. (2010). Role resources and work–family enrichment: The role of work engagement. *Journal of Vocational Behavior*, *77*, 470.480. <https://doi.org/10.1016/j.jvb.2010.06.007>.
- Steiner, R. S., & Krings, F. (2016). How was your day, darling? A literature review of positive and negative crossover at the work–family interface in couples. *European Psychologist*, *21*(4), 296. <https://doi.org/10.1027/1016-9040/a000275>.
- Speirs, K. E., Hayes, J. T., Musaad, S., VanBrackle, A., Sigman-Grant, M., & All 4 Kids Obesity Resiliency Research Team. (2016). Is family sense of coherence a protective factor against the obesogenic environment? *Appetite*, *99*, 268–276. <https://doi.org/10.1016/j.appet.2016.01.025>.
- Tan, S. L., Storm, V., Reinwand, D. A., Wienert, J., de Vries, H., & Lippke, S. (2018). Understanding the positive associations of sleep, physical activity, fruit and vegetable intake, as predictors of quality of life and subjective health across age groups: A theory based, cross-sectional web-based study. *Frontiers in Psychology*, *9*, 977. <https://doi.org/10.3389/fpsyg.2018.00977>.
- ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist*, *67*(7), 545–556. <https://doi.org/10.1037/a0027974>.
- Terrazas-Carrillo, E., McWhirter, P. T., & Muetzelfeld, H. K. (2016). Happy parents in Latin America? Exploring the impact of gender, work-family satisfaction, and parenthood on general life happiness. *International Journal of Happiness and Development*, *3*(2), 140–161. <https://doi.org/10.1504/IJHD.2016.079596>.
- Viñas-Bardolet, C., Guillen-Royo, M., & Torrent-Sellens, J. (2019). Job characteristics and life satisfaction in the EU: A domains-of-life approach. *Applied Research in Quality of Life*, *14*, 1–30. <https://doi.org/10.1007/s11482-019-09720-5>.
- Watts, A. W., Loth, K., Berge, J. M., Larson, N., & Neumark-Sztainer, D. (2017). No time for family meals? Parenting practices associated with adolescent fruit and vegetable intake when family meals are not an

- option. *Journal of the Academy of Nutrition and Dietetics*, 117, 707–714. <https://doi.org/10.1016/j.jand.2016.10.026>.
- Westman, M., & Bakker, A. B. (2008). Crossover of burnout among health care professionals. In J. Halbesleben (Ed.), *Handbook of stress and burnout in health care*. Hauppauge: Nova Science Publishers.
- Westman, M., & Vinokur, A. D. (1998). Unraveling the relationship of distress levels within couples: Common stressors, empathic reactions, or crossover via social interaction? *Human Relations*, 51(2), 137–156. <https://doi.org/10.1023/A:1016910118568>.
- Westman, M., Vinokur, A., Hamilton, L., & Roziner, I. (2004). Crossover of marital dissatisfaction during downsizing: A study of Russian army officers and their spouses. *Journal of Applied Psychology*, 89, 759–779. <https://doi.org/10.1037/0021-9010.89.5.769>.
- Xin, J., Chen, S., Kwan, H. K., Chiu, R. K., & Yim, F. H. K. (2018). Work–family spillover and crossover effects of sexual harassment: The moderating role of work–home segmentation preference. *Journal of Business Ethics*, 147(3), 619–629. <https://doi.org/10.1007/s10551-015-2966-9>.
- Yucel, D. (2017a). Work-to-family conflict and life satisfaction: The moderating role of type of employment. *Applied Research in Quality of Life*, 12(3), 577–591. <https://doi.org/10.1007/s11482-016-9477-4>.
- Yucel, D. (2017b). Work-family balance and marital satisfaction: The mediating effects of mental and physical health. *Society and Mental Health*, 7(3), 175–195. <https://doi.org/10.1177/2156869317713069>.
- Yucel, D. (2018). The dyadic nature of relationships: Relationship satisfaction among married and cohabiting couples. *Applied Research in Quality of Life*, 13(1), 37–58. <https://doi.org/10.1007/s11482-017-9505-z>.
- Xu, X., Peng, Y., Zhao, P., Hayes, R., & Jimenez, W. P. (2019). Fighting for time: Spillover and crossover effects of long work hours among dual-earner couples. *Stress and Health*, 35, 491–502. <https://doi.org/10.1002/smi.2882>.
- Zabriskie, R., & McCormick, B. (2003). Parent and child perspectives of family leisure involvement and satisfaction with family life. *Journal of Leisure Research*, 35, 163–189. <https://doi.org/10.1080/01494929.2013.768321>.

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