



UNIVERSIDADE DE COIMBRA



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Master Thesis

Work-family conflict and facilitation profiles of higher education professors: What does influence organizational commitment?

Erasmus Mundus Joint Master Degree in Work, Organizational and
Personnel Psychology

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Coimbra, July 2020

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Acknowledgments

I would first like to thank my thesis advisors, Professor Carla Carvalho Professor Lisete Monico and Professor Carolina Moliner for the patience and support, in good and bad times.

I am thankful to all the professors I met during my Master, both in Coimbra and in Valencia. You shaped my mind and you inspired me in my journey. You gave me support and valuable knowledge that I promise I will use honourably in my future career.

Grazie to my family, I would never, in a million years, be the person I am proud to be without every of you. You gave me values I will carry with me forever. It was not easy to be apart from you, but my heart is always with you at home.

A very special *Grazie* goes to Manuel. You are the significant person that gave me confidence and happiness, that had to bear my complaints and emotions. Thank you, you have been so important. I am grateful to have you in my life, constantly listening and supporting me.

Obrigada to my colleagues in Coimbra. Thank you, for every word you had the patience to teach me, to every piece of your culture you shared with me. I felt integrated thanks to every single of you.

I was honoured to have had a marvellous class in Valencia, thanks to every single of you. I will always remember the laughs, the tapas and the pizza with ketchup we have shared.

A special *Obrigada* to my friends Amanda, Bruna and Luis. Thanks to have shared your culture with me. I am *gorda*, thanks to the food you have cooked for me, I am *tagarela*, thanks to the words you taught me and I am a *funkeira* thanks to the playlist you have made me listen to. I am grateful to have you in my life.

Finally, I am grateful for the support of my Italian friends: Sara, Alessandro and my Girls team. You were always my anchor, always ready to remind me I had a home to return to.

Abstract

Achieving a balance between professional life and personal life has always been challenging, especially now that new forms of working conditions are emerging. Work-Life Balance has become a big challenge and a matter of utter relevance to the European Union, considering that this dimension has individual, organizational and social implications. Recent literature shows the concept of Work-Life Balance as a continuum between conflict and facilitation from work to family and from family to work. That is why this research is focused on the analyse of the relationship between Conflict and Facilitation with Organizational Commitment, an important factor to evaluate turnover intentions. The relationship between Organizational Commitment and work-family interface has been the subject of many investigations in different fields of study. However, results do not seem consensual. This study aims to analyse how different level of conflict and facilitation of work-family profiles could affect the organizational commitment in a sample of Portuguese professors. For this study, the Trabalho-Família Scale Shorten Version (Carvalho et al., 2009, 2012, 2016, 2018) and the Organizational Commitment Scale (Meyer & Allen, 1991) were applied across Portuguese Universities, and data were collected from a sample of 654 professors. Results show that the level of conflict and facilitation in the profiles we have analysed does not significantly influence the Organizational Commitment. These results push the research forward to find new results and a new point of views on the work-family balance spectrum.

Keywords: Work-family balance, work-family conflict, work-family facilitation, Organizational Commitment, professors.

Introduction

We all experience an imbalance between professional life and personal life at least once in a lifetime. This imbalance could be happening at different intensities and if it is protracted for a long time, it leads to some dysfunctional outcomes such as stress, inefficiency and poor physical and mental health, among others.

In many countries in Europe, work and family balance are becoming a key matter to develop new welfares that protect families from both demographic and family structural changes. These changes are gradual and they had affected work and family roles and their relationship (e.g., Bond, Galinsky, & Swanberg, 1998; Ferber, O'Farrell, & Allen, 1991): more women are working and the divorce rate increased. This led to single-earner families and more demands for both childcare and eldercare. Many types of research show that there is a shift from the "traditional" ideal of family, in which the woman stays at home with the children and the man goes to work, to a more modern ideal, where both parents are going to work, taking care of the offspring together (Malone, 2010). Scandinavian countries are the most developed regarding this issue (Lunau, Bambra, Eikemo, Van der Wel, & Dragano, 2014), with policies that facilitate a balance between paid employment and private life, offering high-quality childcare, optimal parental rights and good parental leave salary. In Portugal, where the present study is carried out, there is a little public provision (Lunau et al., 2014). Part-time jobs are difficult to find, childcare options are not always available, and mothers have more time with a new-born while fathers must come back to work sooner. Luckily, this setting is slowly changing with new law proposals aimed to help parents and encourage facilitation between work and family (CEP, 2018).

This overview of the new work situation in Europe will be taken as a reference in the following Literature Review. The concept of balance between work and family and why this concept is fundamental for the health of the employee will be addressed.

This construct of work and family balance was historically being studied as a whole, but in the last years, researches are more inclined to use work and family balance as a continuous interchange between conflict and facilitation. These two situations could manifest themselves both from the work environment to the family and the opposite, from the family surroundings to the work environment. If people observe a high level of conflict, the outcomes are negative and can lead to depression, burnout and intention to

leave.

Since these outcomes are very important to better understand how work-family balance can positively increase, we focus our study on organizational commitment, as a predictor of the intention to leave an organization (Meyer & Allen, 2001). In the second part of the literature review, the article analyses the organizational commitment construct and its three different profiles: affective, continuance and normative.

Recent literature does not show synergic results, since most of the studies use just one of the two constructs, conflict or facilitation, without considering the whole spectrum. One of the contributions of this study is to analyse both conflict and facilitation simultaneously by creating different profiles that lead to different levels of these two variables.

Our main aim is to investigate how different levels of work and family conflict and facilitation influence the three different types of organizational commitment. It is fundamental to study this aspect to help organizations and national policies to develop a better balance for all the workers, increasing, for example, the equal condition between women and men or understand what is important for the workers' well-being (CEP, 2018).

Finally, our research is focused on professors because we think it is important to understand their needs since it is a category of professionals that carry out many different tasks such as lectures, research, homework. Another aspect to be taken into consideration is the flexibility and adaptability that this work requires. Not the only adaptability is required to teach and to adapt to different classes, but it is especially mandatory when we refer to working conditions. A good example of this aspect can be seen in the light of the latest facts about the pandemic crisis COVID-19, that required a dramatic shift in the daily life of professors, affecting both private life and professional life. The article will better analyse this point of view further on, together with a general overview of previous results in this field of investigation.

Literature Review

To start, we need to assess what are work and nonwork-related domains. During the lifetime, every person experiences multiple roles at the same time and for each one of them, the person creates different expectations. Every role has specific demands that the person has to carry out successfully. These demands are incompatible between each other and, at some point, they create a conflict between roles (Wolfe, Quinn, Snoek, & Rosenthal, 1964) that the literature has identified as role stress (Sarbin & Allen, 1968). Role stress happens when one person is given different roles that cannot be handled together. This theory is part of a bigger theory of roles (Sarbin & Allen, 1968) that includes role overload and role conflict. A person experiences role overload when the resources are not enough to overcome all the demands from different roles. Role conflict is referred, instead, to mutually incompatible role expectations. This concept of role conflict will later be investigated.

The two main roles that literature takes more in consideration (Allis & O'Driscoll, 2007; Frone, 2003; Greenhaus & Beutell, 1985) are work and personal life, that can be identified in family life and personal benefit activities (Allis & O'Driscoll, 2007). Personal benefit activities integrate roles that have their roots in religion (e.g., meditation, religious activities), personal development and education (e.g., private studies, personal goals) or leisure (e.g., sport, hobbies) (Allis & O'Driscoll, 2007; Frone, 2003). These above-mentioned categories are activities that the individual does to take care of himself. The research found out that these personal benefit activities generate, as an outcome, feelings of freedom, satisfaction and positive mood, so it is related to well-being in general (Eden, 2001). Research, however, has focused more on the relationship between work and family instead of considering all these personal benefit activities, because family is presumed to be the major non-work aspect of life (Allis & O'Driscoll, 2007; Frone, 2003). In this literature review, we will analyse the non-work domain mainly as family-oriented.

Greenhaus and Beutell (1985) state that it is important to recognize that non-work responsibilities could influence work-related demands, affecting an individual's health and performance but also the other way around. This effect takes the name of spillover. Spillover refers to the situation in which, one of the domains, is been affected

by another (Burke & Greenglass, 1987; Evans & Bartolome, 1986; Lambert, 1990; Near, Rice & Hunt, 1980; Staines, 1980; Zedeck, 1992). This spillover manifests itself in a person's mood, satisfaction, values, skills and behaviour. Just recently, literature accepted that this effect could be both negative, when one domain negatively performs with another, or positive when the two domains are synergic. In literature, these two types of spillover are referred to as conflict (negative spillover) and facilitation (positive spillover), (Kalliath & Brough, 2008).

Normally, people experience both conflict and facilitation at the same time but different levels. People can experience a high level of conflict but a low level of facilitation or the other way around. In both cases, people encounter an imbalance. This imbalance is itself a stressor that can lead to bad outcomes in the affected life domain. It can influence the health and well-being, causing depression (Frone, Russell, & Barnes, 1996), anxiety, life distress, psychological strain (Greenhaus, 2006, Grzywacz & Bass, 2003), negative emotions (Greenhaus, 2006) or, more in general, dissatisfaction with life (Carlson & Kacmar, 2000).

Conflict and Facilitation

In this research, it is crucial to better introduce concepts of conflict and facilitation related to work and family. As seen before, conflict is a negative spillover between work to family and family to work meanwhile facilitation does not exclude the conflict but it simply deadens its level (Frone, 2003). In a more wide definition, "Balance is a combined measure whereby work-family conflict was subtracted from work-family facilitation, and family-work conflict was subtracted from family-work facilitation" (Grzywacz & Bass, 2003, p. 257)

The concept of a negative interference (referred in literature also as conflict or negative spillover) between work and family is, surely, the most studied (Carvalho & Chambel, 2016; Greenhaus & Beutell, 1985; McGinnity & Carvert, 2009). The main idea is that there is a conflict between these two spheres. Greenhaus and Beutell (1985) describe this situation as a form of inter-role conflict in which both of these two domains are incompatible and the participation in one another's role is difficult or impossible.

There are many reasons for this conflict. In Frone's review (2003), he identifies two main predictors. First, the role of the environment: this includes *behavioural*

involvement (time spent for each role), *psychological involvement* (how much people feels connected and satisfied with their role) and *work and family stressors*. The second potential cause, it is related to personality. The research found that some personality traits such as mastery, hardiness, positive affectivity and extraversion helped the individual to manage the conflict better (Bernas & Mayor, 2000; Grandey & Cropanzano, 1999; Grzywacz & Marks, 2000). Instead, personality characteristics, as negative affectivity and neuroticism, were more likely to predispose negative conflict (Grzywacz & Marks, 2000).

Stoiko, Strough, and Turiano (2016) found evidence that work and family conflict was positively associated with many diseases both physical and mental. Some work-related aspects, such as long hours shift, more workload pressure, bringing work home, having less support, could cause tension and bad outcomes (Grzywacz & Marks, 2000; Voydanoff, 1988, 2005). Regarding family characteristics, it seems that having an offspring that is less than 18 years old increase the conflict with work. This conflict will grow even more if children are less than 5 years old (Voydanoff, 1988).

The construct of facilitation between work and family is surely less studied than the conflict dimension and the investigation is more recent. Historically, active participation in nonwork domains (family in particular) has been judged as reducing the time available for work and so, associated to a lack of commitment at work (Marks & MacDermid, 1996). Opposite to this vision, multiple research found out the importance of having multiple roles (Barnett & Hyde, 2001; Ruderman, Ohlott, Panzer, & King, 2002; Seiber, 1974). Facilitation is a descendant of the Role Accumulation Theory (Seiber, 1974) that affirms that every role comes with advantages that the person might benefit as a reward. Rewards that could be divided into four different classes: role privileges, status security, status enhancement and enrichment of personality (Seiber, 1974). This classification takes into consideration the positive spillover between roles that a person could experience (Kirchmeyer, 1992) and it seizes the concept of work-family enrichment (Greenhaus & Powell, 2006).

Presence and commitment in nonwork-related domains could improve satisfaction and energy, offering the worker more energy to cope with work-related issues (Ruderman et al., 2002). These researches offer the theoretical foundation of facilitation concept (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005). Important input was given by Frone (2003), based on previous researches about the facilitation health

outcomes (Grzywacz, 2000). One of these positive outcomes is surely less depression, as supported by Hammer et al. (2005). The definition that Frone supports is that “Work and family facilitation represent the extent to which participation at work (or home) is made easier under the experiences, skills, and opportunities gained or developed at home (or work)” (Frone, 2003, p. 145). So, according to this definition, facilitation is a positive influence between work and family (Carvalho et al., 2018). Active participation in non-work domains could predict an experience of facilitation at work (Allis & O’Driscoll, 2007; Kirchmeyer, 1995) and so on, positive outcomes occurring when the person experiences a high level of facilitation and low levels of conflict (Grzywacz & Bass, 2003). Other outcomes, that were found to be linked with a greater level of facilitation, are life satisfaction, family satisfaction and job satisfaction (Hanson, Colton, & Hammer, 2003).

As in the conflict, also in the facilitation literature was found out that some individual differences enhance the pattern of facilitation. In a study based on the BigFive Questionnaire (Wayne, Musisca, & Fleeson, 2004), it was found that extroversion is correlated with greater levels of facilitation between roles, as well as openness was a predictor of facilitation in work-to-family facilitation. Conscientiousness and agreeability are connected to family-to-work facilitation while neuroticism lows the facilitation level and increase conflict (Wayne, Musisca, & Fleeson, 2004). Another study by Sumer and Knight (2001) found out how different type of attachment can predict the positive or negative level of spillover between roles. Secure attachment resulted to be the predictor of a positive spillover from work-to-family and family-to-work. Also, individual coping strategies could predict work-family facilitation. Wayne, Randel and Stevens (2003) investigated if family-supportive work culture could predict work-to-family facilitation. The result was positive. They found out that advanced planning, seeking support, goal setting and positive thinking were all related to family-to-work facilitation while coping and planning strategies predicted work-to-family facilitation. In addition to personal characteristics, also family characteristics – such as age and number of children, family climate, family support system, family involvement – could predict facilitation (Gryzwacz, 2000; Wayne, Randel, & Stevens, 2003). Many types of research are carried out on this topic.

Grzywacz (2000), Grzywacz and Butler (2003) and Voydanoff (2004) reported that working hours significantly and positively foretell work-to-family facilitation. Increasing and accumulation of different roles increase gratification and good outcomes.

Work and Family Balance: A multidimensional concept

Literature often converges these two concepts in one, talking about the balance between facilitation and conflict (Frone, 2003). Many definitions of balance were proposed, but the simplest one is stated by Frone (2003) that affirms that work-family balance is a lack of conflict or interference between work and family roles. A more role-related definition is: "Work-family balance reflects an individual's orientation across different life roles, an inter-role phenomenon (Greenhaus, Collins, & Shaw, 2003, p. 513). These authors went forward with the analysis of balance, affirming that, to have a balance, we should focus on the equal satisfaction present in every different role we have. They propose a three-component model of work and family balance: time balance, involvement balance and satisfaction balance. Both roles have to experiment with these three constructs. Of course, this situation of perfection is impossible to achieve inasmuch every role in our life is influenced by another. That is why the most widely shared definition, it states that these two roles, work and non-work, are not very much compatible in some respect (Greenhaus & Beutell, 1985). This definition implies also that the relationship between these two spheres is bidimensional or rather work interferes with family as the family could interfere with work. The balance is difficult to achieve and that is why it is important to understand mechanisms that relate the two of them.

To have full knowledge of the family and work balance spectrum, we need to consider both conflict and facilitation domains together, as a multi-dimensional construct. As previously analysed, work-family conflict and work-family facilitation are not mutually exclusive but they coexist at the same time (Grzywacz & Marks, 2000a, 2000b; Kirchmeyer, 1993; Tiedie, Wortman, Downey, Emmons, Biernat, & Lang, 1990; Voydanoff, 2004a, 2004b). In the meantime, the construct is also bidirectional: home to work and work to home, based on the spillover theory results. Therefore, several studies supported the distinction between four dimensions (Frone, 2003; Stoiko, Strough, & Turiano, 2016): work to family conflict, family to work conflict (Frone, Russell, & Cooper, 1992a, 1992b; Netemeyer, Boles, & McMurrian, 1996) and work to family facilitation and family to work facilitation (Grzywacz & Marks, 2000a, 2000b; Kirchmeyer, 1993; Tiedie et al., 1990). Through these above-mentioned four dimensions, we deeply understand the relationship that intercourse between work and family. All of these dimensions are related to work outcomes, family outcomes and individual psychological and physical well-being (Grzywacz, 2000; Grzywacz & Marks

2000a, 2000b; Kirchmeyer, 1992a, 1992b, 1993). Acknowledging this, new strategies to deaden the level of conflict and facilitation, creating a better balance, could be implemented. In this way, people could improve the process that they use to deal with the challenges proposed both by work and family roles (Carvalho et al., 2018). In their review, Kalliath and Brough (2008), focus the attention on the fact that to achieve a balance, every person should use personal resources such as time, commitment and energy. Work requires determined standards that can conflict with family (Voydanoff, 1988, 2005). Therefore, an increasing number of organizations focus the attention on knowing the personal life of their employees, to implement human resources practices that promote and support work and family facilitation (Allen, 2001; Chambel & Santos, 2009). Different research by Brookwood, Hammer and Neal (2003) suggests that positive family-to-work spillover might increase if the organization establishes programs that support parenting efforts such as parenting classes, daycare, flexible scheduling. All these good practices increase the level of satisfaction among workers. Another point of view is offered by the research of Barnett, Marshall and Sayer (1992). Results show that women that find their work challenging with good rewards, will experience less psychological distress and so better relationship with their children. These implementations are a form to maintain a competitive background, encouraging the balance between family and work (Allen, 2001), increasing the level of satisfaction among employees (Brookwood et al., 2003; Chambel & Santos, 2009) and the level of positive commitment given by the fact that workers see an environment that helps them to balance their life. Work and family balance is not important just for employees themselves, but also for their employers (CEP, 2018). When people feel that their employer cares about their personal lives and he/she encourages the facilitation, they will increase the level of satisfaction and desire to stay toward the organization that is represented by having a high level of commitment to the organization (Wayne, Randel, & Stevens, 2003).

Organizational Commitment

Precisely the organizational commitment is a key concept regarding the study of work attitudes and behaviours at work (Meyer & Allen, 1991). This construct is important because is mostly linked to turnover: more the commitment employees have for their organization, less they will leave their work (Meyer & Allen, 1991).

Organizational commitment can be defined as “a psychological link between the

employee and his or her organizational that makes it less likely that the employee will voluntarily leave the organization” (Meyer & Allen, 1996, pp. 252). This psychological link integrates attitudinal perspectives – which are a combination of work experiences, perception of the organization and personal characteristics (Becker, 1960; Mowday, Porter & Steers, 1982) – and behaviour perspectives, inspired by the theory of Porter (1974) who divide commitment into three different dimensions: acceptance and belief in values and in the objectives of the organization, desire to make efforts to the organization, feeling of pride in belonging to the organization and willingness to remain (Porter, 1974).

Going back to the main theory by Meyer and Allen, they created a three-component model of commitment based on previous researches and previous theories. This model was created to delineate all the different types of commitment and to asset these concepts to promote further researches (Meyer & Allen, 1991): affective commitment, continuance commitment and normative commitment. All the three components are based on different psychological states that employees could experience during their work and each of them link them with the organization in a different way.

Affective commitment is related to the identification and emotional attachment of employees to their organization. Accordingly, they will stay in the organization because they want to do so. This type of commitment relates to negative turnover cognition (Momani, 2017). Continuance commitment is based on how much employees value the loss and gains if they leave the organization. Of course, this type of commitment leads people to not be loyal to the organization, so they will face a turnover once their job is no longer useful for them. People with this type of commitment will remain because they have to do so. Finally, normative commitment refers to a psychological obligation that employees feel toward the organization. This obligation stems from the fact that employees recognize the cost – in terms of money, time and energy spent – faced by the organization for their formation. This behaviour created loyalty for the organization, and it will lead employees to work hard accordingly with the values of the organization (Momani, 2017). So, employees stay because they ought to do so, they feel an obligation to stay.

Later on, in 2001, Meyer and Herscovitch suggested the importance of mental patterns that follow every type of commitment. The mental pattern associated with affective commitment is the will. This means that a person with affective commitment

wants to reach the goal he/she prefixed. This happens when the person is engaged with the organization and recognize himself/herself the values as one's own. The mental pattern linked with continuance commitment is characterized by the perception of the losses and the gains to stay or leave the organization. This mental scheme will develop once the person realizes that could lose an investment, he/she did or that he/she does not have any alternative but stay in the organization. Normative commitment is characterized by an obligation mental pattern. The person internalizes the norms through socialization, he/she receives a benefit such as better salary and he/she has a strong psychological link with the organization.

Work-Family Conflict and Facilitation and Organizational Commitment

Many pieces of research were carried out regarding the outcomes of work-family conflict and facilitation on organizational commitment, but no research was able to find coherent results. Most of the research focus their attention just in one construct: conflict or facilitation and how they link with organizational commitment (Meyer, Stanley, Herscovich, & Topolnytsky, 2002; Riaz & Hunjra, 2015; Wayne, Randel, & Stevens, 2003). Few investigations consider the relationship between work and family balance and organizational commitment (Arif & Farooqui, 2014; Sakthivel & Jayakrishnan, 2012) and the results are inconsistent or not coherent.

Talking about research that took in consideration the conflict, Meyer, Stanley, Herscovich and Topolnytsky (2002) found that affective commitment and normative commitment have a negative correlation with stress and with work-family conflict thus continuance commitment well relate with these variables. Riaz and Hunjra (2015) found that there is a negative and significant relationship between work and family conflict and organizational commitment among Pakistan universities. Hence, work-family conflict badly influences organizational commitment.

Regarding work-life balance, results concluded that, among university professors in Pakistan, work and family balance affects employee's satisfaction and their commitment to the organization (Arif & Farooqui, 2014). Research has also been carried out in the health field. Sakthivel and Jayakrishnan (2012) found out that when nurses feel more family-work balance, they were more committed to the organization. Azeem and Akhtar's results (2014) confirmed this hypothesis: work and life balance is important to predict a good commitment among healthcare workers.

Opposite to these results, Parker and Langford (2008) found that employees with a higher level of work-family balance reported lower engagement and so less commitment to their organizations. Authors justify these results by saying that employees with a high level of engagement and commitment will cherish their work so they will sacrifice work-life balance to achieve organizational goals.

Finally, work-family facilitation is the least studied concept, for this reason, Wayne, Randel and Stevens (2003) examined both ways of facilitation (work to family and family to work) to try to understand the correlation with job satisfaction, organizational commitment and intention to leave. They found that work-to-family facilitation well predicts job satisfaction, continuance commitment and normative commitment but negatively predicted intention to leave.

Given such diversity of results of the above-mentioned research, it seems extremely interesting to analyse how the level of work-family conflict and facilitation (Alegre et al., 2019) affects the three types of commitment: affective, normative and continuance of our participants of the study (Portuguese professors). Previous research carried by Akanni and Oduaran (2017) highlight how is potentially appropriated to study the academic environment regarding work and life balance. Academic work is often very frenetic, with multiple tasks to carry on such as lectures, research, meetings with students, administrative duties. All these workloads affect the balance and create conflict between work and personal life. Even more if we take into consideration the pandemic that affected the whole world in the beginning of 2020. Coronavirus pandemic affected professors' work in a new way that was challenging for their balance. Although the research is not wide yet, we can suggest that family conflict was high, given the fact they had to give lectures and the same time take care of offspring's education (Ray, 2020). New ways of teaching are being under assessment such as smart-working, teleworking, podcast lectures, online classes and online exams (Ray, 2020). Previous research lack in this education field, inasmuch as the majority of research is focused on healthcare. The present research is the continuation of previous research that analysed how work and family conflict and facilitation is linked to Burnout (Alegre, Carvalho, Mónico, & Parreira, 2019).

Hypothesis

In line with previous research and with work-family conflict and facilitation

theories, this investigation aims to analyse how the level of work-family conflict and facilitation affects the three types of commitment: affective, normative and continuance. Our ultimate goal, beyond analysing these dimensions, is to offer more knowledge about work and family balance.

Suggested hypothesis are the following:

H1. The intent is to develop a Cluster analysis of the Trabalho-Família scale Shorten Version. The hypothesis is to reveal four profiles that carry different levels in conflict and facilitation such as high level of conflict and high level of facilitation, high level of conflict and low facilitation, high facilitation and low conflict and finally, low facilitation and low conflict.

This hypothesis is based on previous research carried on by Alegre et al. (2019) with a similar sample and with the same validated questionnaire.

H2. The four profiles present significant relationships between each other in all the different types of commitment: affective, continuance and normative.

Since the previous literature is lacking in continuity and coherency, this hypothesis, based on different profiles and analysing both Conflict and Facilitation at the same time, is experimental with no expectation concerning the results nor the final discussion.

Method

Sample

The sample is composed of 654 university professors that belong to different universities both private and public located in Continental Portugal and Islands. The sample was collected between 2012 and 2019. The sampling method that was used was for convenience, after which a random distribution was performed by different groups. The sample is composed of 322 men (49,2%) and 312 women (47,7%), 20 participants did not express their gender (3,1%) (Table 1).

The age group between 22 and 90 ($M= 42,88$, $SD= 9,67$) (Table 1). It is composed mostly by married teachers (58,9%), followed by single (22,9), divorced (8,4%), other (4,3%) and separated (2,3%). 21 subjects did not express their marital status (3,2%) (Table 1). The participants have from 0 to 5 children ($M=1,22$, $SD= 1,06$) (Table 1).

Most of the participants teach in a public university (76,9) while 19,3% teach in a private university (3,8% are missing values) (Table 1).

The seniority in the university is between 2 and 529 months ($M=154,34$, $SD=102,91$) (Table 1) and our study covers almost entirely the country of Portugal with the majority of professors in Coimbra area (34,71%), followed by Lisbon area (20,03%) and Castelo Branco area (12,08%) (Table 1).

Table 1: *Sample characteristics*

	n	%	M	SD
Gender				
Masculine	322	49.2		
Feminine	312	47.7		
Age				
			42.88	9.67
Civil state				
Single	150	22.9		
Married	385	58.9		
Divorced	55	8.4		
Separated	15	2.3		
Other	28	4.3		
Number of sons				
			1.22	1.06
Type of University				
Public	503	76.9		
Private	126	19.3		
Years in seniority				
			12.86	102.91
University (ranged by city)				
Algarve	1	0.15		
Aveiro	15	2.29		
Castelo Branco	79	12.08		
Coimbra	227	34.71		
Guarda	36	5.5		
Leiria	5	0.77		
Lisboa	131	20.03		
Madeira	13	1.99		
Minho	8	1.22		
Portalegre	14	2.15		
Porto	17	2.60		
Santarem	49	7.49		
Setubal	21	3.21		
Viseu	35	5.35		
Missing value	3	0.46		

Instruments

Two questionnaires and sociodemographic questions were used:

A. Trabalho-Família Scale (Carvalho et al., 2009, 2012, 2016, 2018)

The original version of this questionnaire was developed into the Portuguese version and adapted for academic context by Carvalho and Peralta (2009), it has a total of 93 items. The assessment of the scales was made by MacDermid et al. (2000) and it was later tested and validated in different investigations by Carvalho and her research team (e.g., Carvalho & Andrade 2012; Carvalho, Mónico, Parreira, Fernandes, Salgueiro-Oliveira, Braga, & Gómez, 2016; Carvalho, Parreira, Mónico, & Ruivo, 2016; Carvalho, Mónico, Pinto, Pinto, Alegre, Oliveira & Parreira, 2018, Alegre, Carvalho, Mónico, & Parreira, 2019). It is based on the Sloan Work-Family Researches Electronic Network INTF Scales (MacDermid, Barnett, Crosby, Greenhaus, Koblenz, Marks, Perry-Jenkins, Voydanoff, Wethington, & Sabbatini-Bunch, 2000). This questionnaire investigates the interference of work to the family, interference of family to work, work as a facilitator to the family, family as a facilitator of the work, the impact of the tension that work produced on the private life, and the impact of the tension that private life produce on the work. The items represent the best measures published in this area (e.g., Gutek, Searle, & Klepa, 1991; MacDermid et al., 2000; Netemeyer, Boles, & McMurrian, 1996).

For our research, we used a shorten validated version of this first version. It is composed of 24 items and it was validated by Alegre, Carvalho, Mónico and Parreira (2019). The goal of this questionnaire is to evaluate the conflict and the facilitation between work and family/personal life. The questionnaire is divided into two parts: one part about conflict and one part about facilitation. The Conflict subscale contains 14 items that describe the conflict from work to the family and from the family to the work. The items in this scale are focused on understanding how much the work negatively influenced the private life/family and how the family could have a negative impact on the work. Participants ranked the items on a 4-point Likert scale (1, Rarely; 2, Sometimes; 3, Often; 4, Most of the times). Participants were asked to answer based on the last three months experiences they had, concerning the situations proposed on the questions. Participants were informed that the concept of personal responsibilities, presented in the questionnaire, was referring to activities such as bricolage, taking care of other people, keeping in contact with relatives and friends and housecleaning. Items

are divided into four different categories: energy (e.g., I arrived home late from work and I was so tired I could not do family activities/ personal activities that I wanted to do); strain (e.g., I was worried about my personal responsibilities while I was at work); time (e.g., The amount of time my personal responsibilities take over has made me work less than I wanted to) and behaviour (e.g., My personal responsibilities have made me behave inappropriately at work).

The Facilitation subscale analyses from work to family and family to work. This scale contains 11 items, ranked in a 4-point Likert scale (1, Rarely; 2, Sometimes; 3, Often; 4, Most of the times). As in the conflict dimension, we asked the participants to answer the questions based on the last three months experiences.

Items correspond to five categories: energy (e.g., My family gave me the energy to do my job); strain (e.g., My family life helped me to relax and prepare myself for the next day of work); time (e.g., My work schedule was flexible enough to allow me to take care of my personal responsibilities); behaviour (e.g., The forms of problem-solving I used at work were effective in resolving problems at home), and support (e.g., Talking to someone at home helped me deal with problems at work).

B. Organizational Commitment Scale (Meyer & Allen, 1991)

This scale analyses the organizational commitment based on the theory of “Three-Component of Organizational Commitment” developed by Meyer and Allen. This theory is developed to evaluate the type of relationship between the employee and the organization but also to know either why the employee wants to stay inside the organization. The model is divided into three types of commitment: affective, normative and continuance. The questionnaire was adapted by Carvalho and her team (2009) to suit the university environment where this research is set.

The scale is composed of 19 items and three dimensions are evaluated. The first is the affective organizational commitment with 6 items. It happens if the employee feels an emotional relationship with the organization. Examples of questions are “This faculty has a great meaning for me” and “I would be very happy to spend the rest of my career in this university”. 7 items are dedicated to normative organizational commitment when the employee feels an obligation to work in that specific organization, examples of questions are “This faculty deserve my loyalty” and “I would feel guilty to leave this faculty right now”. The last one, continuance organizational commitment is composed

by 6 items, happen when the employee works for the organization for a specific self-interest, examples of items are “One negative consequence for me if I would leave this faculty is to not have other job alternatives available for me” and “A lot of things in my life would be affected if I would choose to leave this faculty at this very moment”.

Participants were asked to answer from a 7-points Likert-scale where 1 is Totally Disagree and 7 is Totally Agree. The requirements were to read carefully questions about organizational commitment and agree or disagree with the specific items.

Procedure

Formal and ethical procedure

This study is approved by the Ethics and Deontology Committee of Psychological Research by the Faculty of Psychology and Educational Sciences of the University of Coimbra on November 19th of 2015. The first page of the questionnaire presented the aim of the study, instructions and the voluntary and anonymous nature of the participation. It guaranteed also the confidentiality of the data. Data were collected both in paper and online. Approximately, the time to complete the questionnaire is 30 minutes.

Data Analysis

All the analysis carried on this study is conducted using the statistical program SPSS and AMOS 22.0 for windows operating system (Arbuckle, 2013). Outliers were analysed according to Mahalanobis squared distance (Jöreskog & Sörbom, 2004) and no relevant values were found. The normality of the variables was assessed by the coefficients of skewness (Sk) and kurtosis (Ku). A confirmatory factor analysis was performed on the Trabalho- Familia Scale to confirm factor validity based on the shortened version (Alegre et al., 2019) using AMOS 22.0 (Joreskog & Sorbom, 2004). The goodness of fit was analysed by the indexes of NFI (Normed of fit index; good fit $>.80$; Schumacker and Lomax, 2010), SRMR (Standardized Root Mean Square Residual; appropriate fit $<.08$; Brown 2006), TLI (Tucker-Lewis Index - TLI; appropriate fit $>.90$; Brown, 2006), CFI (Comparative fit index; good fit $>.90$; Bentler, 1990), RMSEA (Root Mean Square Error of Approximation; good fit $<.05$; Kline, 2011; Schumacker and Lomax, 2010), and X2 ($p >.05$, but irrelevant if $N > 500$;

Bentler, 1990; Schumacker and Lomax, 1996). The fit of the model was improved by modification indices (MI; Bollen, 1989), leading to a correlation of the residual variability between variables with $MI > 90$, $p < .001$. The improvement of model fit was evaluated by the modification indices (MI; Bollen, 1989), and we considered liberating the parameters with higher MI. We analysed the MIs by their statistical significance ($\alpha < 0.05$), as proposed by Arbuckle (2013). Another criterion was designed by Marôco (2011), which advice to be safer to modify the parameters with MI higher than 11 ($p < .001$).

Reliability on both scales was calculated by Cronbach's Alpha (Nunnally, 1978). Reliability coefficient higher than .70 were considered acceptable for convergence and reliability (Hair, Black, Babin, & Anderson, 2010). In general, the value of .80 was taken as a good reliability indicator. The composite reliability and the average variance extracted for each factor were evaluated as described in Fornell and Larcker (1981).

After having run descriptive statistics and correlations, cluster analysis was run with the K-means procedure, to assess whether there were distinct profiles of individuals based on the scores of the Trabalho-Família Questionnaire regarding these four dimensions: Work to Family Conflict, Family to Work Conflict, Work to Family Facilitation, Family to Work Facilitation. After having run the cluster analysis, profiles were created crossing Conflict clusters and Facilitation clusters. Then, data were analysed through a multivariate analysis of variance (MANOVA, General Linear Model Procedure; Hair, Anderson, Tatham & Black, 2008) to find a link between the profiles created and the organizational commitment. Post-hoc Tukey LSD tests for multiple comparisons were performed, since the independent variable has four levels (Alferes, 1997). A significance level of $\alpha = .05$ for Type I error for all the analyses was considered. Effect sizes of correlations (low, medium, or high correlations) were classified according to Cohen (1988). The magnitude of the experimental effect was obtained by calculating the eta squared (η^2) measure (Howell, 2013).

Results

Confirmatory Factor Analysis was carried out to test the validity of the instruments. In general, Trabalho- Família Scale (Model 1) showed a good fit, as shown in Table 2. This covariation shows non-random measurement error, which may result from items' similarities (e.g., semantic redundancy), sequential positioning in the scale or specific characteristics of the respondents (Aish & Joreskog, 1990). In general, also Organizational Commitment Scale showed a good fit, attending all fit statistics (see Table 2, Model 2).

Table 2: *Fit statistics of Organizational Commitment and Trabalho-Familia scale.*

Model	NFI	TLI	CFI	χ^2/df	RMSEA	RMSEA 90% CI
1	.895	.913	.923	3.44* (df= 113)	.061	.057 - .066*
2	.830	.814	.851	6.77* (df=109)	.094	.088 - .100*

Notes: NFI normed fit index, CFI comparative fit index, X2 chi-square, df degrees of freedom, PNFI parsimony normed fit index, SRMR standardized root mean square residual, RMSEA root mean square error of approximation, CI confidence interval, * p < .05

Standardized regression weights and squared multiple correlations of model 1 (Trabalho-Família Scale) are shown in Figure 2 and of model 2 (Organizational Commitment Scale) in Figure 1.

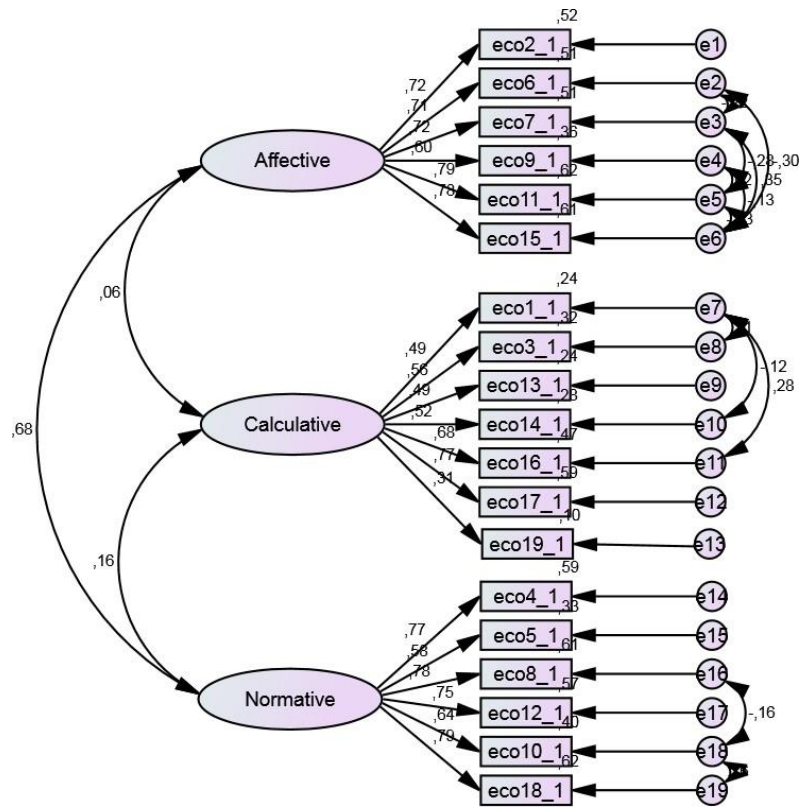


Figure 1: Standardized regression weights and squared multiple correlation model of Organizational Commitment Scale.

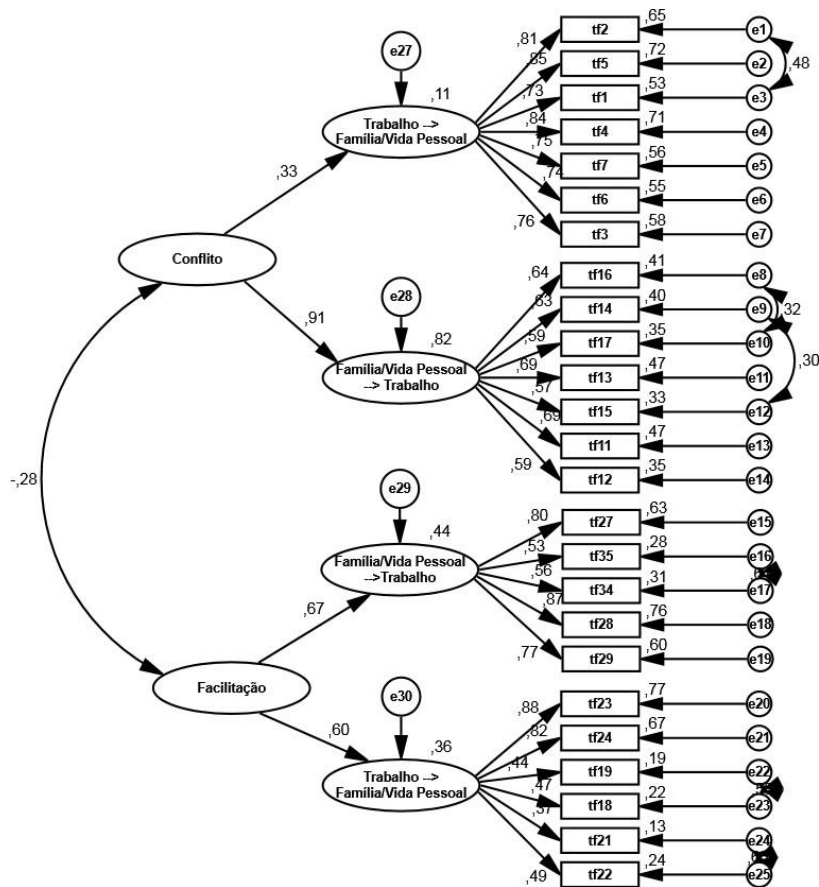


Figure 2: Standardized regression weights and squared multiple correlation model of Trabalho - Familia Scale.

Cronbach's alphas were good in every Trabalho-Família Scale dimensions (Table 4). The values were above .80 in Work to Family Conflict dimension ($\alpha = .92$) and Family to Work Conflict ($\alpha = .82$). Regarding Work-Family Facilitation subscale, Cronbach's Alpha was good in both Work to Family Facilitation ($\alpha = .81$) and Family to Work Facilitation dimension ($\alpha = .85$). Regarding the Organizational Commitment Scale, Cronbach's Alpha was good in Affective Commitment ($\alpha = .85$) and Normative Commitment ($\alpha = .86$) while was acceptable in Calculative Commitment ($\alpha = .76$)

The descriptive statistics and inter-correlations between the dimensions of the Conflict, Facilitation and Organizational Commitment are shown in Table 4.

As shown, the mean score is high in Affective Organizational Commitment ($M = 5,19$), while the mean is low in Conflict Family to Work ($M = 1,32$). Intercorrelations are strong between all the factors in the Trabalho-Família Scale while very low correlations are presented between the Work-Family Scale and Organizational Commitment.

Table 3: Means (M), standard deviations (SD), and intercorrelations among factors (Cronbach's Alpha (α) between brackets) for the Conflict, Facilitation and Organizational Commitment measures.

	M	SD	1 C W-F	2 C F-W	3 F W-F	4 F F-W	5 OCC	6 OCA	7 OCN
1. Conflict W-F	2.19	0.78	(.92)	.279**	-.515**	-.065	.097*	-.009	-.003
2. Conflict F-W	1.32	0.39		(.82)	-.058	-.135**	.063	.017	.005
3. Facilitation W-F	2.28	0.65			(.81)	.321**	-.065	.036	-.025
4. Facilitation F-W	2.85	0.70				(.85)	-.003	-.066	-.073
5. OC Calculative	4.41	1.13					(.76)	.095*	.187**
6. OC Affective	5.19	1.23						(.85)	.630**
7. OC Normative	4.41	1.35							(.86)

Significant level ** $p < .001$ * $p < .05$

For each dimension of the Conflict scale, two clusters were analysed by K-means analysis: Low Conflict cluster and High Conflict cluster. For each dimension of the Facilitation scale, two clusters were found: Low Facilitation cluster and High Facilitation cluster. Then, participants were taken separately to see which cluster they belonged to create profiles that combined these clusters. The emerging profiles were: Profile 1 (Low Conflict – High Facilitation; N= 258), Profile 2 (Low Conflict – Low Facilitation; N=137), Profile 3 (High Conflict – Low Facilitation; N=141), Profile 4 (High Conflict – High Facilitation; N=116) (see Table 6). These results are in line with H0, so the first hypothesis is accepted.

A characterisation of the cluster based on the demographic data was performed to see if the sample presents significant differences between clusters. The result is that there are no significant differences between different clusters. Age goes from $M=41,29$ to $M=44,07$ and every cluster present more men than women except for Profile 4 (High Conflict – High Facilitation) in which we have $n= 68$ of women and $n= 45$ of men although Profile 1 corresponds to the highest number of participants.

Multivariate Analysis of Variance (MANOVA) was carried out due to the existence of multiple dependent variables. These dependent variables were analysed simultaneously to evaluate the differences between group means. MANOVA indicates that the overall effect is statistically not significant, λ of Wilks =,985 (Sig.= .390) (see Table 6).

Table 4: Clusters Sizes, means, and description of Profiles Clusters. W-F means of each profile and multiple comparisons between profiles.

		Profile 1		Profile 2		Profile 3		Profile 4				<i>Partial Eta Squared</i>
		Low Conflict-High Facilitation (N=258)		Low Conflict-Low Facilitation (N=137)		High Conflict-Low Facilitation (N=141)		High Conflict-High Facilitation (N=116)		<i>F</i>	<i>Sig.</i>	<i>η^2</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Organizational Commitment	Affective	5.14	1.25	5.32	1.14	5.19	1.27	5.14	1.22	.707	.548	.003
	Calculative	4.32	1.20	4.34	1.13	4.47	1.01	4.61	1.07	2.072	.103	.010
	Normative	4.33	1.36	4.56	1.28	4.40	1.37	4.41	1.36	.844	.470	.004

Discussion

It is impossible to think about our life without work or our family. Both of them are essential for our well-being. Sometimes is difficult to manage both at the same time and sometimes is challenging to interlock pieces coming from both these two spheres.

It is difficult to get together these roles and that is why it is important to study how work and family fit together without comprising the general well-being of people.

Of course, different jobs bring different challenges as stated by Thompson and Prottas (2006): the ability to combine personal life and work is coming from the nature of the job itself, that makes it easier or more difficult; and Academic professions indeed require quite a lot of stress due to multiple deadlines to respect and various roles that the professional needs to carry out, from the professor to the researcher. Carlotto and Palazzo (2006) found out that the nature of professor's work and how the job is lead affects the exposure of multiple stressors that could cause bad outcomes in the long term.

This work contributes to the work-family Conflict and Facilitation literature in four ways. First, this study aims to analyse the variable of Work-Family Conflict and Facilitation as a whole, considering both Conflict and Facilitation at the same time. Previous studies lack in doing that since most of the research is carried out just in one variable or the other. Second, given the possibility of positive outcomes from a better balance between work and family, this study helps to explore how Conflict and Facilitation could influence Organizational Commitment. It is doing that, by investigating potential differences in the Organizational Commitment starting from differences in the level of Work and Family Conflict and Facilitation. Finally, since the sample used for the study is wide enough to represent the population of professors in Portugal, the aim is to frame how levels of Conflict and Facilitation are regarding universities in Portugal.

Emerging Profiles

Through cluster analysis, four different combinations came out: two clusters for the Conflict and two clusters for the Facilitation that highlight significant differences in some characteristics among each other. With this result, the first hypothesis (*H0*) based on previous research with a similar sample (Alegre et al., 2019), is accepted.

Based on these clusters, we created four profiles analysing the level of conflict and the level of facilitation. The creation of these profiles was special to help to better understand the relationships that intercourse between variables. The names given to the profiles were inspired by the one used in Alegre et. al (2019) and they serve the purpose of aggregate the same features and doing so, make the differences among each other stand out.

Profiles present significant differences in the number of participants. The profile that stands out more is Profile 1 since the number of participants that satisfies the required characteristics is the highest ($n= 258$). Profile 1 represents a Low level of Conflict and a high level of Facilitation. This result is a good result that shows that professors population feel more facilitation in their life between work and family instead of conflict.

The demographic characterization of the clusters, instead, was not that significant since the averages were similar between each other.

The role of Organizational Commitment

Regarding Organizational Commitment, results were not significant. This means that our H2 is not supported. This hypothesis was experimental and not based on previous studies. From these results, we can conclude that there are no differences in the different profiles regarding the relationship with Organizational Commitment. This results could come from the fact that Conflict and Facilitation variable had never been studied as a spectrum, but just singularly.

Further research is necessary to fully understand how Organizational Commitment relates to the variable of Conflict and Facilitation.

Limitations and further research suggestions

Although the sample was well collected and demographics informations were significative for this study, it would be interesting to add the age of the children in the information, based on the research of Voydanoff (1988). Another limitation is that family sphere of life was the only one taken into consideration beside the work sphere. It would be interesting to know how the recreation art of life would be affected and studied. This research states that the age of the children influences the level of Conflict and Facilitation but not only offspring affects the level of balance in a family. As

analysed in Deluigi (2016), we also face new challenges with elderly to be taken care off, adding roles people has to face in a daily base. Diseases should be also taken into consideration as an added challenge in our work and family balance. Further research should be careful of these new aspects and analyse them to see if they could influence our conflict of facilitation. Other demographic variables could be analysed in the study such as different age, marital status or gender. These variables could give us an interesting view of the situation not only in Portugal but on the family in general and could allow us to see how types of the family changed across the years.

Regarding Organizational Commitment, having no significant results represents a challenge that will lead us to focus more on this variable, evaluating, for example, if a moderator acts on the relationship between work and family Conflict and Facilitation and Organizational Commitment.

This research is focused solely in the theoretical vision behind the delicate balance between work and family. Implement good practices to achieve this balance is what makes researches useful not just for the scientific public but for the general public. It would be valuable to look up and study practical implementations that could be made to achieve a better balance in life.

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