

Telework and Work-Life Balance: a Moderator Role for Organizational Performance

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Abstract

This paper reviews the literature of telework and work-family balance, and proposed a new approach to this topic by focusing on new measures and moderator effects like boundary flexibility or care responsibility. Data from a survey to a sample of Spanish government employees indicates that they value the flexibility derived from telework as the most important factor to enrich their work-family interface.

Introduction

Given the rising number of dual career and single parent families, it is not surprising that workers are struggling to meet competing demands from their work and family lives. Although not strictly a defining characteristic, work-life balance is often mentioned in relation to telework because one reason for its popularity is the perceived ability to help individuals balance competing work and life demands. However, the impact of telework on work-life issues is quite unclear on the basis of past research. The purpose of this paper is to advance the research of the relationship between telework and work-life balance by proposing a new approach that introduces new constructs, as well as new mediators and moderators. We also contribute with data obtained from a large public Spanish organization about the work-life balance perceptions of telework adopters and the contingent effects of some job and organizational characteristics.

Theoretical background and literature review

Of the potential positive outcomes associated with telework, improved work-life balance is among the most commonly cited. Regarding research, there are basically two views on this: that telework is part of the solution (decreasing conflict or improved balance), or that it is part of the problem (increasing conflict). Scholars have probed the extent to which telework allows for better balance between work and personal roles, and this relationship has mainly been clarified by examining work-life conflict (WLC) and life-work conflict (LWC) separately. WLC represents the extent to which work interferes with one's personal life, and LWC represents the extent to which one's personal life interferes with work.

On the positive side, several studies have discussed a number of factors that support work-life balance reported by teleworkers. For example, time flexibility enables teleworkers to combine work and family chores more effectively (Sullivan & Lewis, 2001). Hill et al. (2010) in a survey administered in 75 countries found that workplace flexibility (work-at-home and perceived schedule flexibility) is generally beneficial to individuals and businesses around the world, though cultural differences exist. Fonner & Roloff (2010) found that teleworkers report significantly less WLC than office-based employees. Teleworkers also experience less stress due to meetings and interruptions, and less awareness of general organizational politics, which suggests they may enjoy a level of autonomy and independence from the office. Level of stress was inversely related to WLC, which aided teleworkers to enhance their job satisfaction.

Then, the empirical literature on telework (mostly of a qualitative nature or conducted on small samples) mainly indicates that most teleworkers consider that this form of work gives them more time to be with their families in the morning and evening, and be available for family obligations which reduces perceived measures of WLC. Teleworkers may also encounter fewer distractions relative to those working in a collocated environment. Employees often telework when they need to withdraw from workplace communication, avoid meetings, and have uninterrupted time to concentrate. Although telework cannot diminish all interruptions, given the availability of communication technology and the potential for non-work interruptions, it may afford greater power to diminish interruptions and distractions, which should relieve stress and enhance life (and job) satisfaction.

Given the importance of time flexibility for telework arrangements, three recent-meta-analytic reviews have examined the relationship of workplace flexibility (in time and place) and WLC. Byron's (2005) meta-analysis utilizing eight studies found that schedule flexibility was significantly associated with less WLC. Gajendran & Harrison's (2007) meta-analysis of 46 studies in natural settings involving 12,883 employees indicates that telework is positively related to lower WLC, and that high-intensity teleworking (more than 2.5 days a week) accentuated telework's beneficial effects on WLC. In contrast, Mesmer-Magnus & Viswesvaran's (2006) using five studies found not significant relationship between the presence of flexibility programs (both time and place) and WLC and LWC.

In contrast, other studies have noted conflicts and tensions as a result of the difficulties of negotiating domestic and work-related activities when they take place at the same location. Having an office at home may encourage teleworkers to work longer or over more days of the week, which may impinge upon family time and space. Teleworkers may be sometimes called back to the office for unscheduled meetings, or be requested by employers or contacted by colleagues out of normal hours. Shockley & Allen (2007) found that flexitime was significantly correlated with less work interference but flexiplace was not. Chapman et al. (1995) stated that telework had the potential to increase role conflict, and Christensen (1987) indicates that telework can create a WLC because of the presence of work material in the house and because family members can interfere with work. In another research, Tremblay (2003) reports that there are minor adjustments at the beginning, but that teleworkers manage to separate work and family life quite well over time. This is all the more the case when teleworkers have a closed room from which to work (Felstead & Jewson, 2000). Another negative aspect that can influence work-family balance is the absence of colleagues, especially for those working full-time from home, followed by isolation or difficulty limiting one's working hours.

Whatever the positive or negative this relationship is, the literature reports sometimes that the relationship between telework and work-life (family) conflict (balance) is not linear but curvilinear and moderated by some variables. First, researchers distinguish between various forms of telework (work at home, work done in clients' offices, and work in business centres or satellite offices), of which working at home with Information and Communication Technologies has been identified as the most contributor to work-family balance.

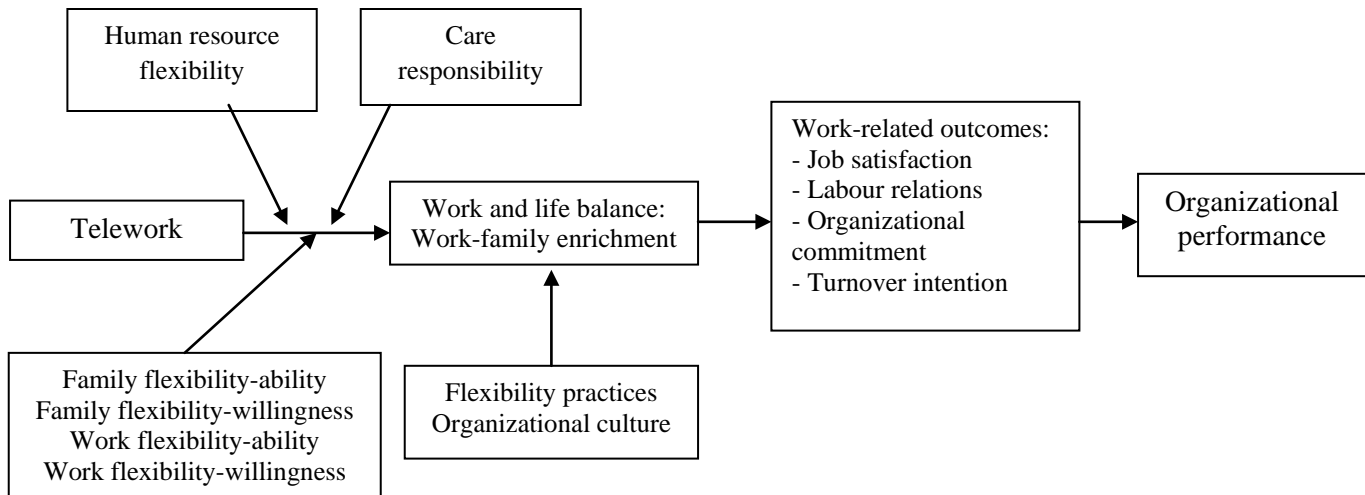
Another basic measure is time because the number of hours worked per week, the number of days teleworked from home, and the length of time an employee has teleworked are frequently discussed in the literature on work-family balance. Thus, Maruyama et al. (2009) found that time-related variables played stronger roles in terms of positive work-life balance reported by teleworkers than demographic variables like gender or the presence of dependent children. Vitterso et al. (2003), on the other hand did not find a significant linear relation between number of days teleworking from home and overall life satisfaction; the study suggests that two or three days of home-based telework probably brings more satisfaction for the workers than a full week of teleworking. Regarding demographics, the literature reported either no evidence of significant gender difference in work and family interface and WLC levels or significant differences with teleworking females having higher levels of WLC than males. The relationship between WLC and presence of children, number of children, and age of youngest child have been addressed at length in the literature (more children - higher conflict; infants, toddlers, preschool - more conflict).

A New Theoretical Research Model

In spite of the advantages described in the literature, balancing work and life is not the main reason for teleworkers to work from home. For instance, Tremblay et al. (2006) with data from the Canadian Workplace Employee Survey found that only a small percentage of employees telework because of family obligations, while for two thirds, it is because of employers' demands. Such data –even after controlling for gender and number of children- suggest that the contribution of telework to improve work-life balance cannot be taken as granted. In order to justify the adoption of telework because of work-life issues, new approaches are needed.

Figure I depicts the research model which includes several contributions to the analysis of telework and work-life balance. We use work-life balance as a mediator between telework and work-related outcomes like job satisfaction. This new approach can be also complemented with new measures of moderator variables. Besides we propose to explore the positive side of the work-family interface as a new measure of work-life balance to mediate the relationship between telework and work-related outcomes. Regarding moderators, as the literature highlights their importance in telework studies, we propose that the degree of individual's care responsibility at home and the degree of human resource flexibility at the organization may moderate the relation between telework and work-life balance which is important for some work-related outcomes. The model also includes other organizational variables such as organizational culture and organizational flexibility practices in order to control the influence of telework on work-life balance. The role of boundary management strategies on work-family balance is also important for telework and is included as a new moderator. The following paragraphs explain the contributions of the model.

Figure 1. Research model



First, it could be useful to explore the positive side of work-life interface and how telework may contribute to it. Regarding this positive side, there are several constructs in the literature but perhaps enrichment is the most comprehensive of all and researchers have also noted how other constructs-spillover, facilitation, etc.- can be categorized under it. Work-Family Enrichment may be defined as “the extent to which experiences in one role improves the quality of life in the other role” (Greenhaus & Powell 2006, p. 73). Enrichment occurs when resource gains generated in Role A promotes improved individual performance in Role B. For example, if an employee gains multitasking skills from his or her parenting role, these skills may directly improve his or her job performance. It could also be the case that resources operate more indirectly at producing enrichment via positive affect. That is, experiences gained at home may produce positive affect toward one’s family role in the form of enthusiasm and higher energy. In turn, this positive affect from the family role may produce more positive affect in the work role.

Although enrichment is distinct from work–family conflict (Powell & Greenhaus, 2006) it is also bi-directional in nature. That is, benefits can be derived from work and applied to family [(i.e., work-to-family enrichment (WFE)] or derived from family and applied to work [(i.e., family-to-work enrichment (FWE)]. The use of enrichment in telework studies may complement the results of previous studies that are restricted to the negative side of work-life interface (i.e., conflict) as, for instance, the flexibility derived from telework arrangements may be a major driver of the enrichment process. The resources that an employee gains in his or her work role (e.g., flexibility from telework) may directly improve his or her parenting role or may indirectly produce positive affect (e.g., enthusiasm, alertness, high energy), which, in turn, benefits the employee's interactions with his or her family. Then, the availability of telework may indicate overall organizational support for employees and their families. This idea is consistent with signalling theory which suggests that observable actions by the organization (e.g., having flexible, family-friendly policies) may be interpreted as a signal of more unobservable characteristics such as care and concern for employees on behalf of the organization.

Second and regarding moderator effects, Figure 1 includes components of boundary flexibility between telework and work-life balance. The proposed contribution of these components would be to moderate positively the link of telework and work-life balance. Thus, teleworkers who are more able and willing to move from one domain (family or work) to another, or who report having higher degrees of flexibility-ability and flexibility-willingness, should report more frequent work and life transitions where apply at one domain the resources acquired in another domain. Boundary theory and border theory provide the theoretical framework for examining how working adults manage the boundaries of the work-life interface. Both theories argue that the management of work and family boundaries must be understood to grasp the complexity of the work-family interface. Matthews & Barnes-Farrell (2010) conceptualise two components of boundary flexibility: (1) flexibility-ability, the perceived ability to contract or expand domain boundaries, and (2) flexibility-willingness, the willingness to contract or expand domain boundaries. Essentially, the flexibility-ability component reflects perceived constraints on the ability to move from one domain to another. For example, an individual may perceive that his or her manager is unwilling to allow for flexibility in his or her work schedule to meet family demands. Alternatively, flexibility-willingness reflects an individual's motivation to engage in movement between domains. For example, if a family demand presented itself, someone with a high degree of willingness may be more prone to leave the work domain for the family domain.

Boundary strategies are important for telework studies because staying at home means that teleworkers can spend more time with their partner and children, re-establish communication channels and feel more present in the family which give them opportunities to apply resources acquired in another domain. But sometimes there is also a lack of boundaries between life and work when the teleworker is absorbed with work and his/her cannot access to the study or the computer during working hours. Tietze & Musson (2005) suggest that the boundaries and discourses of work and home blur when people telework, while Wilson & Greenhill (2005) suggest that gendered identities and roles will be renegotiated because of the promised flexibility of telework.

Bulos & Chaker (1995) describe two basic models by which homework is accommodated in a home environment. One model emphasizes the separation of employment and other home-based activities; the second involves alteration of the very idea of the home so that employment is accommodated as 'a regular "normal activity"'. Some teleworkers may prefer to follow a segmentation boundary management strategy because they believe that establishing tighter boundaries between work and home is best. They may turn off their cell phone or pager at the end of the day and not check email in the evenings or weekends. When teleworking, they work in a home office with a door closed to shut out family interruptions. Others may prefer to integrate. They may take personal calls at work. When at home, they may work at the kitchen table and be accessible to their families. They may also let their clients and co-workers know it is acceptable to call them at home.

Third, other moderator effects complete the research model. We propose that the degree of individual's care responsibility at home and the degree of human resource flexibility (not the availability of flexible practices but employees' flexibility indeed) at the organization may moderate the relation between telework and work-life balance. The literature has explored other moderator effects -job autonomy, employee's drive and productivity- that are mostly related to individual's characteristics but less explored are the dimensions of organizational and individual

flexibility and the results are not conclusive. Thus, whereas Batt & Valcour (2003) found that general flexible scheduling policies (telework being one type) did not have an impact, Golden et al. (2006) found that scheduling flexibility moderated the influence of telework on work-family balance: increased scheduling flexibility was found to decrease WLC at a faster rate, suggesting that the more flexibility teleworkers are afforded in choosing when they perform work activities, the greater the reduction in WLC.

Empirical study

We have carried out an empirical study among employees of the Government of Aragon, a region located in the northeast of Spain. Ninety employees (62 per cent female, 38 per cent male) answered a questionnaire (20 per cent response rate of the objective population) addressed to government employees interested in the implementation of flexible-friendly practices into the workplace like telework. We describe some of the results related to work-family conflict, job and organizational characteristics, and need of flexibility to balance work and family. Although it is the purpose of our future research to test the aforementioned theoretical model in larger samples of both Spanish firms and Public Administrations, this paper advances a few data that illustrates the positive relationship between telework and work-life balance.

Ninety seven per cent of surveyed employees reported the great importance of workplace flexibility to work-life balance (22.2 per cent as important, 38.9 per cent as very important, and 35.6 per cent as extremely important). More precisely, 92 per cent of employees consider that telework could positively improve their work-life balance, and 97 per cent actually wish to telework (95 per cent of them only part of the week). Table I report the perceived contributions of telework to employees' time flexibility and work-family balance.

Table I. Implications of telework to manage the time and activities of employees (assessed on a seven-point Likert scale of agreement with endpoints 1-totally disagree and 7-totally agree)

With home-based telework....	Mean	S.D.
...I could organize my time better and would have more spare time	5.64	1.50
...I would have more control over my labour time and without interruptions	5.62	1.43
...I would increase my performance and could concentrate more on my job	5.49	1.54
...I could take better care of my children	5.37	2.14
...I could balance better my job and life and would take more care of my family	5.08	1.84
...I could be more involved in family chores at home	4.58	2.25
...I could carried out my home and labour activities at the same time	4.25	2.08

Work-to-family conflict (WFC) and family-to-work conflict (FWC) were assessed by constructs of 6 and 5 items respectively which were measured on seven-point Likert scales (Cronbach's alpha of 0.830 & 0.780). We find that employees who perceive higher WFC and FWC are those who would also need more flexibility in the workplace (Table II). WFC and FWC are positively correlated ($p=0.000$). However, a linear regression carried out to explain the need of flexibility based on WFC and FWC indicates that FWC is significantly related to the need of flexibility ($\beta=0.391$ $p=0.001$) but WFC is not ($\beta=0.089$ $p=0.427$). An exploratory factor analysis of the reasons (11 items) that would justify the adoption of telework by employees, indicates that the first factor (higher Eigen-value and 23 per cent of explained variance) is related to work-family balance, whereas the second factor (14 per cent of explained variance) is related to

flexibility derived from telework. These results indicate that employees consider telework as important to acquire flexibility, and that this flexibility is also important to work-life balance.

Table II. Mean differences and correlations of FWC and WFC according to the flexibility needed to balance work and family

	High-need of flexibility	Low-medium need of flexibility	Level of significance p	Correlation between conflict and flexibility
Family-work conflict	3.88**	3.03	0.001	0.414***
Work-family conflict	4.74*	4.11	0.016	0.273*

Notes: The need of flexibility was assessed on a seven-point Likert scale; the mean of this variable was used to split the sample in two groups and run the test of mean differences. Level of significance p: *p<0.05 **p<0.01 ***p<0.001

Table III shows the statistically significance of mean differences related to some potential characteristics of telework according to the perceived need of flexibility to balance work and family. Employees who require more flexibility in their work activities are those who perceive a greater potential contribution of telework to improve work-family balance. From the organizational point of view, employees who are more in need of flexibility to balance work and family are those who perceive less support of their colleagues at the office (p=0.049), work in more entrepreneurial and risk-taken departments (p=0.083), and also work in departments or units where compensation based on performance is less important (p=0.079).

Table III. Mean differences and correlations of intentions, advantages and disadvantages of telework perceived by employees, according to their need of flexibility to balance work and family

	High-need of flexibility	Low-medium need of flexibility	Level of significance p	Correlation with flexibility need
Percentage of employees who perceive that telework could improve their work-family balance	100**	88	0.007	---
Percentage of employees who wish to telework	97	97	0.936	---
Degree of importance of telework to balance work and family	6.40*	6.00	0.018	0.348**
Degree of importance of telework to increase flexibility	5.52	5.62	0.698	-0.053
Degree of importance of telework to reduce commuting	5.42	5.09	0.436	0.126
Degree of importance of telework to have more job autonomy and independence from the supervisor	1.73***	2.66	0.000	-0.277*
Degree of disadvantage of telework because of work-related factors	2.55**	3.50	0.001	-0.390***
Degree of disadvantage of telework because of career development	2.59*	3.35	0.013	-0.170
Degree of disadvantage of telework because of home-related factors	1.81 [†]	2.29	0.063	-0.168

Notes: The need of flexibility was assessed on a seven-point Likert scale; the mean of this variable was used to split the sample in two groups and run the test of mean differences. Other items were also measured on seven-point Likert scales with endpoints 1-very low and 7-very high.

Level of significance p: [†]p<0.1 *p<0.05 **p<0.01 ***p<0.001

There are not significant demographic differences among employees (sex, age, children) according to the level of work-life balance. However, some work-related factors show

statistically significant differences regarding FWC. Thus, employees with longer tenure in the organization (5.2 vs. 9.7 years, $p=0.002$) and in the current job position (6.8 vs. 4 years, $p=0.009$) perceive higher FWC. Similarly, employees who perceive higher FWC have less job autonomy ($p=0.037$) and less job satisfaction ($p=0.038$). There are not statistical differences in work-life balance of other job characteristics and organizational factors: colleagues support, supervisor support, organizational support, pay by performance & degree of mechanical (structured) organization.

Regarding boundary strategies, potential teleworkers emphasize more the separation of employment and other home-based activities vs. the model of accommodating the employment as ‘a regular “normal activity”’. Table IV indicates the degree of agreement measured on a seven-point Likert scale of approaches to home-based telework. Most potential teleworkers would opt for having their own spaces at home to telework instead of integrating domains. Telework offer these government employees the chance to proactively schedule their time and minimize interferences between work and personal domains.

Table IV. Degree of agreement with boundary strategies regarding the adoption of home-based telework (assessed on a seven-point Likert scale of agreement with endpoints 1-totally disagree and 7-totally agree)

	Mean	S.D.
I would have my own space at home, only for the job (closed room)	5,38	1,97
I would have to reorganize internal space at home	3,06	2,14
I would work in the living-room or another open & common space at home	2,45	2,09
I would have to move to another home because of space restriction to telework	1,84	1,61

The extent of telework is a frequent variable used in telework studies. According to the literature, moderate levels of telework are optimal to maximize work-family balance, and probably work-family enrichment as well. Data from our sample indicates that moderate levels of telework are positively related to employees with longer tenures in their job position ($p=0.040$), who enjoy greater job autonomy ($p=0.089$), located in departments oriented to performance ($p=0.007$) and more entrepreneurial ($p=0.077$), and with higher organizational & supervisor support ($p=0.000$).

These descriptive results are indicative of the importance that the analysis of the positive side of work-family balance may have for the study of telework as we propose in the model depicted in Figure I. The potential contribution of telework among Spanish government employees is greatly remarked by the need of flexibility to balance work and family. WFC is also present even though it is not significantly related to the need of flexibility, but the surveyed employees consider that they are interested in meeting family needs and supporting diverse family-related activities.

Conclusion

This paper has reviewed the literature of telework and work-family balance, and proposed a new approach to this topic by focusing on the positive side of the interface with new moderator effects. Although the literature indicates that moderate levels of telework may be optimal in order to maximize work-family balance, adding a construct like work-family enrichment would allow to go beyond this point by remarking how telework may contribute to

enrich the work-family interface. Our data from a survey to a sample of Spanish government employees indicates that they value the flexibility derived from telework as the most important factor to enrich their work-family interface.

The review of the literature of telework and work-family balance shows the importance of moderator effects to explain non-linear relationships with work-related and non-work related outcomes. We propose to include the use of boundary strategies as moderators of telework and work-family enrichment. This variable has still not been used in empirical studies of telework. However, boundary flexibility is important because teleworkers can spend more time with their partner and children which give them opportunities to apply resources acquired in another domain. In turn, this increased application of resources may reinforce the positive contributions of work-family enrichment to work-related and non-work related outcomes.

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