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Telework: conditions that have a positive and negative impact on the work-family conflict

Teletrabajo: Condiciones que impactan de manera positiva y negativa el conflicto trabajo-familia

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Abstract

Purpose – Various investigations have shed light on the positive and negative effects of telework on the work-family conflict. These effects might be related to the conditions under which telework is carried out. The purpose of this paper is to analyze the influence of six variables related to telework conditions on the work-family conflict, and the number of additional hours worked beyond normal office hours.
Design/methodology/approach – Multiple linear regression models are calculated with data collected from a sample of 142 teleworkers in public institutions to evaluate the effect of the above variables.
Findings – Results reveal that factors which affect work-family conflict include the space used for working at home, the presence of persons at home while someone is teleworking, the number of days of telework, the time a person has been teleworking, and the extent of responsibility a worker has outside of the work environment.
Originality/value – There is a need for research to determine the ideal conditions and situations for teleworking. This study is specifically intended to strengthen some previous findings in this area, and to provide new evidence.
Keywords Telework, Work-family conflict, Work hours
Paper type Research paper

Resumen

Propósito – Las investigaciones han mostrado efectos positivos y negativos del teletrabajo sobre el conflicto trabajo-familia. Estos efectos podrían estar relacionados con las condiciones en las que lleva a cabo el teletrabajo. Por ello, el presente estudio analiza la influencia de seis variables relacionadas con las condiciones del teletrabajo, sobre el conflicto trabajo-familia y la cantidad de horas laboradas adicionales a la jornada.
Metodología – Para evaluar el efecto de esas variables se procesan modelos de regresión lineal múltiple con los datos obtenidos en una muestra de 142 teletrabajadores de instituciones públicas.
Hallazgos – Los resultados revelan que el espacio utilizado para trabajar en el hogar, la presencia de personas en el hogar mientras se teletrabaja, la cantidad de días de teletrabajo, el tiempo que lleva un sujeto teletrabajando y el grado de responsabilidad que tiene el trabajador fuera del ámbito laboral, influyen sobre el conflicto trabajo-familia.

JEL Classification — M15 IT Management

Originalidad/valor – Hacen falta investigaciones que revelen las condiciones y situaciones idóneas para teletrabajar. Esta investigación precisamente refuerza algunos hallazgos encontrados en esa línea y brinda nuevas evidencias.

Palabras claves Teletrabajo, Conflicto trabajo-familia, Horas de trabajo

Tipo de Documento Trabajo de investigación

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Introduction

The work-family balance may be impaired or benefitted by telework. Although some studies show a positive effect of teleworking (Hill *et al.*, 2003; Allen, 2001; Gajendran and Harrison, 2007), others indicate the contrary (Ordoñez, 2012; Kossek *et al.*, 2006, Vittersø *et al.*, 2003; Lapierre and Allen, 2006). Telework has the potential to provide autonomy and flexibility so that people can have time for leisure activities and comply with family duties, but it may also turn into a trap, since many workers end up working longer hours as a result of telework, which generates conflicts in family life (Ordoñez, 2012; Kossek *et al.*, 2006). The conflict caused by overwork and the overlap of work and home cause dissatisfaction not only for the teleworker, but also for his or her partner (Vittersø, *et al.* 2003).

This duality of positive and negative results of teleworking has been reported in the empirical findings of some authors. In the UK, Maruyama *et al.* (2009) found that teleworking from home implies longer working hours, but that teleworkers also enjoy better life quality and a better balance between working time and free time. Other findings indicate that telework reduces the interference of work with the family (Golden, 2006), but increases interference of the family with work (Golden 2006; Raghuram and Wiesenfeld, 2004).

These differences may be related to the conditions in which telework is carried out, making it necessary to study the situations that may promote the positive or negative effects of telework (Sullivan, 2012). The objective of the present study is to determine whether or not six specific conditions of the way in which telework is carried out affect the work-family conflict, as well as another variable associated to this concept; i.e., the amount of time worked (Gutek *et al.*, 1991). Specifically, the conditions analyzed are the following:

(1) type of space a person uses when working from his or her home;

(2) the presence of persons at home while a person is working;

(3) the number of teleworking days;

(4) the flexibility to establish a convenient schedule for teleworking;

(5) the responsibilities of an individual outside of his or her work environment; and

(6) the amount of time spent teleworking.

Lastly, it is important to emphasize that publications and research on telework in Latin America are scarce. A systematic review of literature related to telework and work flexibility in four scientific databases carried out by Da Silva (2014) found that almost all publications come from Anglo-Saxon countries. However, this does not mean that the issue has gone unnoticed. For instance, some researchers have analyzed telework as an employment opportunity for the disabled (Salazar, 2007; Bonilla *et al.*, 2014; Pires, 2014; Flórez *et al.*, 2012), telework and employment (Bastidas, 2011), the relationship between workplace health and telework (Gareca *et al.*, 2007), readiness for teleworking and attitudes toward teleworking (Gómez and Zambada, 2009), the outlook on and

current status of telework in Latin American countries (Rubio, 2010; Mejía, 2007; Di Martino, 2004), as well as the potential implications of telework for organizations (Contreras and Rozo, 2015; Tunal, 2012), and individuals (Rubbini, 2012; Caamaño, 2010; López *et al.*, 2009; García *et al.*, 2007), among other issues. However, there is still a need for empirical research to analyze the effects of teleworking on individuals, above all, on the mechanisms that may promote positive effects on various outcome variables.

Conceptual framework
Work-family conflict
According to Voydanoff (2005), the work-family conflict refers to the cognitive evaluation made by an individual of his or her work, family, resources, and requirements. Initially, developmental psychologists analyzed the concept by studying only the effects of work on family life, while organizational behavior investigators focused on the effects of family life on work (Gutek *et al.*, 1991). Frone *et al.* (1992) stated that the work-family conflict must be approached from both perspectives, and it is increasingly analyzed in this way (Byron, 2005). Two theoretical constructs have also become increasingly relevant due to the influence they have proven to have on outcome variables such as satisfaction with work (Adams *et al.*, 1996), satisfaction with life (Allen *et al.*, 2000), emotional response, and cognitive evaluation (Zhao *et al.*, 2011).

It is important to note that both types of conflicts are correlated with each other (Gutek *et al.*, 1991). In addition, work interference with family (WIF) is correlated with the number of hours an individual works (Gutek *et al.*, 1991).

Teleworking space
The effectiveness of telework may be affected by the way physical working space is arranged (Kossek *et al.*, 2006), partly due to the fact that one of the main symbols used by persons to separate the work and the family environments is physical space (Fonner and Stache, 2012). Wapshott and Mallet (2012) point out that if individuals do not respect the elements that facilitate the representation of space and disregard practices to define the spaces, there will be a greater risk of misjudging whether telework is ideal for them or not. Hill *et al.* (2003) also express this concern and indicate that those who wish to work successfully from a virtual office must find ways to establish better boundaries between work and personal and family life.

Golden (2012) recommends placing barriers at home to establish a distance between family and work affairs to avoid work-family conflicts. Some individuals have shared this point of view, and have looked for ways to create boundaries between the home and work space, rebuilding an area in their house to make it look like their regular office space (Dart, 2006; Tietze, 2002; Tietze and Musson, 2005). According to Wapshott and Mallet (2012), it is through the appropriation and control of space that teleworkers may change the meaning of a place at their home to suit their interests. During the appropriation process an individual adds his or her own ideas and symbols to a space. During the control process, worker behavior with respect to the use of the space is laid out and defined by the teleworker. The other members of the household understand this, and follow certain rules to respect the space.

Based on the observations of these authors, it seems to be important for a teleworker to have a space available at home which s/he can claim, and as such set boundaries between family and work time. If this space does not exist, or if the teleworker is not aware of such a need, and s/he works in spaces designed for sharing, talking or relaxing, this person is prone to suffer work-family conflicts, as well as to work longer

hours to be able to comply with tasks that need to be carried out. The following hypotheses are therefore proposed:

H1a. Teleworkers who have a specific room to work in have less family interference with work (FIW).

H1b. Teleworkers who have a specific room to work in have less WIF.

H1c. Having a specific room for teleworking helps reduce the number of hours worked because it permits a better specification of working hours.

Persons in the household

A factor that may affect the level of interest of persons in teleworking is the possibility of having a more relaxed environment in which to concentrate, as there may be many distractions in a traditional office outside the home that make it difficult to complete tasks (Peters *et al.*, 2003). However, there are also distractions at home, caused by the family or persons who are in the household when teleworking takes place, which make it difficult to concentrate (Mello, 2007). Some studies have revealed the distracting effect of interferences caused by the spouse of a teleworker (Baines and Gelder, 2003; Hardill and Green, 2003; Fetzner, 2003), and by children's needs (Baines and Gelder, 2003; Raghuram and Wiesenfeld, 2004; Mann and Holdsworth, 2003). The following hypotheses are proposed, given that the presence of persons in the household may generate conflict with work tasks, and may even generate family conflict because of greater weariness caused by the teleworker having to attend to family and work responsibilities simultaneously, and work longer hours to finish assigned tasks:

H2a. Presence of persons in the household while teleworking increases FIW.

H2b. Presence of persons in the household while teleworking increases WIF.

H2c. Presence of persons in the household while teleworking increases the amount of time spent working.

Number of teleworking days

According to the literature review by Bailey and Kurland (2002), the effects of telework may decrease or disappear as teleworking frequency is reduced; however, not many studies take this variable into account. Based on the analysis of responses of 1,566 teleworkers, Maruyama *et al.* (2009) determines that the longer the time spent teleworking, the better the work-life balance achieved.

According to this researcher, the time saved in commuting from the house to the work place provides persons with more time to attend to family affairs. A similar finding was obtained by Hill *et al.* (2003). These researchers show that those who spend more hours working at their home tend to obtain higher scores in work-family balance measurements. Daly (2007) found that those who telework four or five days a week report lower stress levels than those who telework occasionally. According to this research, predictability of the schedule may be the reason why stress is reduced. Since stress is related to work-family conflict, this result provides evidence that the number of teleworking days also has an effect on the variables studied:

H3a. An increase in the number of teleworking days allows individuals to reduce FIW.

H3b. An increase in the number of teleworking days allows individuals to reduce WIF.

H3c. An increase in the number of teleworking days reduces the number of hours that a person needs to complete his or her tasks.

Flexibility

A contextual element that may moderate the effects of teleworking is the supervisor's management style. Wiesenfeld *et al.* (1999) point out that control methods for supervising workers may not work for teleworkers. Pyöriä (2011) and Golden (2009) also mention that for telework to actually function, it is necessary for supervisors to abandon traditional control-based management and focus more on results-based management. This is supported by Mello (2007), who states that adequate functioning of telework depends on a supervisor's views about delegating the responsibilities of the whole work unit, and letting his or her employees decide the way in which they complete their work assignments.

Additionally, flexibility allows teleworkers to organize their time better, which results in lower work-family conflict (Kossek *et al.*, 2006). Therefore, the following hypotheses are proposed:

H4a. Teleworkers that have greater flexibility in their scheduling to perform their tasks show less FIW.

H4b. Teleworkers that have greater flexibility in their scheduling to perform their tasks show less WIF.

H4c. Teleworkers that have greater flexibility in their scheduling to perform their tasks work less hours.

Responsibility

Hill *et al.* (2003), Allen (2001) and Gajendran and Harrison (2007) state that telework has the virtue of providing autonomy and flexibility so that teleworkers may carry out their leisure activities, family duties, and work responsibilities. Those who have more responsibilities may therefore find benefits in teleworking. Shockley and Allen (2007) found evidence that supports this possibility. According to their findings, flexibility in space and time generates positive results on work-family balance for individuals with greater family responsibilities; however, when this responsibility is low, results are negative. According to the authors, it is possible that those with greater responsibilities experience higher levels of conflict, and teleworking helps them organize their time, while those with low levels of responsibility become disorganized. In keeping with these findings, Madsen (2003) mentions several studies that have found that individuals with children report stress reduction thanks to teleworking. Based on these findings, the following hypotheses are proposed:

H5a. Those who have greater responsibilities outside of the work environment are able to reduce FIW.

H5b. Those who have greater responsibilities outside of the work environment are able to reduce WIF.

H5c. Those who have greater responsibilities outside of the work environment are able to reduce the amount of time they work.

Time

It is difficult to find evidence in the literature about the effect of the amount of time spent teleworking on work-family conflict. Among the few sources of evidence that do exist are the studies carried out by De Lay (1995) and Madsen (2006). The first of these studies found that after six months of teleworking, there was a reduction in the levels of work-family conflict in a group of women, while the second study did not find a relationship between teleworking time and work-family conflict. Even though the De Lay study suggests that the amount of time worked may have a positive effect, this study proposes that the effect of this factor may also be negative. Over time, those who are around a teleworker may lose the perspective that the individual is working at home, and cannot be constantly available to take care of other matters. Similarly, the supervisor may lose the perspective that at certain times, the teleworker is enjoying his or her free time. Therefore, the following hypotheses are proposed:

H6a. The amount of time spent teleworking may have a negative or positive effect on FIW.

H6b. The amount of time spent teleworking may have a negative or positive effect on WIF.

H6c. The amount of time spent teleworking may have a negative or positive effect on the number of hours worked.

Methodology
Data

The coordinators of teleworking programs at several Costa Rican public institutions were initially contacted to be present with the proposed study in order to motivate them to get their institutions to become involved. To do so, they had to provide us with a list of the institution's teleworkers with their respective contact information. Four institutions gave us their lists, with information on 184 teleworkers. Of this total, 142 teleworkers were interviewed. E-mail was initially sent to each of them with an invitation to use a link to a web page containing the questionnaire. A reminder was sent to those who did not respond within an eight-day period. If after four reminders they still did not respond, they were contacted by telephone to conduct the interview.

For this sample size, a test power is obtained for those variables that turned out to be significant for FIW between 0.91 and 1.0. The test power between the variables that have a significant effect on WIF ranges between 0.93 and 1.0. Lastly, the test power for the only variable that had a significant effect on working additional hours was 0.98. Data for test power were calculated with G-power software, using multiple linear regressions: Fixed model R^2 increase and the F test family. An α value of 0.10 was used as a parameter for the calculation, although it was divided by six (the number of relevant predictor variables) to apply the Bonferroni correction.

Variables

Work-family conflict. This factor was measured using eight items specified by Gutek *et al.* (1991). Four of these items measure WIF (i.e. I am worried about my work when I am on my free time), and four items measure FIW (i.e. I have so many personal duties that they keep me from my work). The response scale used for these items had four values: very frequent, somewhat frequent, not very frequent, not frequent at all, and not at all or never.

Additional hours worked. This variable is obtained by subtracting the hours in an individual's official working week from the hours he or she normally works during a week.

Teleworking space. A specific question was asked about the place in the house where the individual most frequently works. Responses were dichotomized to test the hypothesis: 1. Study or specific working room 0. Another place.

Persons in the home. The participants were asked whether at least one other person is in the house where the individual is teleworking. Response categories are: 1. Yes 0. No.

Days of telework. Questions were asked about the number of days per week that the individual teleworked. It is important to point out that all the persons in the study have a five-day working week.

Flexibility. Individuals are asked if they have a high flexibility for teleworking in their most convenient schedule. The response categories are 1. Yes 0. No.

Responsibility. An indicator was constructed to measure individuals' level of responsibility, based on the following items: does a disabled or older person live with you who requires care? Do you have to take care of some relative or loved one who is older or infirm, or for some other reason? Are you currently taking classes? (for a high school diploma, graduate degree, master's degree or other) Percentage of domestic work carried out in your household (cooking, washing, cleaning, ironing, etc.).

The three first items received a value of 1 if the person was living in the mentioned situation, and 0 if he or she was not. The fourth item was assigned a value of between 0 and 1, where 0 corresponded to an individual who did not carry out domestic work in his or her household, and 1 if they carried out all the domestic work in their household. The final indicator was calculated by averaging the score obtained for these four items and multiplying the result by 100.

Teleworking time. Information about the number of months individuals have teleworked.

Control variables. Four control variables were used: sex (1 = female and 0 = male), age (years), time in months of working under the current supervisor, institution for which the interviewee works (Judicial branch, the Costa Rican Attorney General's Office, the Plant Protection Service of the Ministry of Agriculture and Animal Husbandry, or the National Electricity Company). In this model, the benchmark used was the judicial branch.

Method
Three multiple linear regression models were used to test the hypotheses, one for each dependent variable. The models initially showed two studentized residuals greater than 2 or lower than −2. Given that these residuals affected compliance under the assumption of homoscedasticity, they were excluded from the analysis. Therefore, none of the three models showed heteroscedasticity, according to the Breusch-Pagan test (at 10 percent significance level).

Results
The descriptive results reveal that WIF is greater than FIW (Table I). Furthermore, the score on the scale of FIW is low. The other dependent variable indicates that, on average, individuals work 1.8 hours more than the length of their normal workday.

Regarding the explanatory variables, we can see that: most teleworkers work with at least one more person in the household, most of them have an office or study room at home for teleworking, and very few have the flexibility necessary to allow them to work using a schedule that is convenient for them. The average number of days that

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FIW	2.50	0.79														
WIF	1.36	0.43	0.44**													
Hours	1.83	7.88	0.52**	0.08												
Space	0.77	0.42	−0.07	−0.02	−0.10											
Persons	0.68	0.47	0.22**	0.03	0.16***	0.07										
Days	2.08	1.06	−0.07	−0.06	0.09	0.14***	0.07									
Flexibility	0.26	0.44	−0.06	−0.02	0.00	−0.03	−0.04	−0.17*								
Responsibility	25.33	19.20	0.15***	0.30**	−0.05	0.08	−0.06	0.12	−0.13							
Time_telework	22.31	19.29	0.18*	0.14	0.25**	0.08	0.20*	0.28**	−0.13	−0.10						
Time	63.35	57.94	0.06	−0.06	0.08	0.03	0.06	0.10	−0.08	−0.19*	0.29**					
Sex	0.61	0.49	0.20*	0.18*	0.08	−0.08	0.02	0.06	−0.12	0.00	0.08	−0.08				
Age	41.60	8.31	−0.03	−0.10	0.21*	0.02	0.04	0.11	−0.04	−0.18*	0.14***	0.28**	0.02			
CNFL	0.21	0.41	0.00	−0.01	−0.14***	−0.01	0.02	0.01	0.13	0.03	−0.03	0.06	−0.16***	−0.05		
Procu	0.17	0.38	0.27**	0.05	0.38**	−0.07	0.15***	0.04	−0.18***	−0.06	0.54**	0.23**	0.20*	0.16***	−0.23**	
Fito	0.11	0.32	−0.11	0.03	−0.20**	−0.23**	−0.09	−0.34**	0.04	−0.02	−0.31***	−0.01	0.10	−0.08	−0.18***	−0.16***

Notes: [a]FIW, family interference with work; WIF, work interference with family. *$p < 0.05$; **$p < 0.01$; ***$p < 0.10$

Table I.
Descriptive statistics
and correlations

people telework per week is two, and, lastly, the responsibility indicator shows a relatively low average score.

Bivariate correlations suggest that there is a moderate correlation between WIF and FIW. For their part, the variable of additional hours worked is correlated with the WIF variable but not with the FIW variable. The variables reflecting time spent teleworking and the institution where individuals work are correlated simultaneously and significantly with at least one independent and one dependent variable, suggesting that in fact there is a confusion effect.

The three multiple linear regression models show that the only explanatory variable that is not significantly related (at 10 percent or less) with any of the three dependent variables is flexibility offered to individuals to work on a schedule that is convenient for them. The responsibility indicator shows a significant relationship with WIF and FIW, although in an opposite direction to that proposed in the hypothesis (Table II).

Discussion

Studies carried out in Latin America that have analyzed the relation between teleworking and teleworkers' satisfaction with life indicate that telework may have a positive influence on factors related to such satisfaction (García *et al.*, 2007; PROSIC, 2009; López *et al.*, 2009). However, many studies worldwide which have focused on the effect of telework as an essential variable for promoting teleworkers' quality of life, through decreasing work-family conflict, for example, have produced results which contradict each other, which may be explained by differences in the conditions under which individuals work. This research tests different hypotheses about several conditions that may contribute to teleworking having a positive or a negative effect.

Several of the hypotheses proposed were supported. Specifically, it was found that the space used at home for teleworking has an effect on work-family conflict.

	FIW		WIF		Hours	
Predictor	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Step 1						
Sex	0.20*	0.24***	0.17***	0.18*	0.04	0.03
Age	0.05	0.09	−0.04	−0.02	0.00	0.01
CNFL	−0.07	−0.02	−0.10	−0.06	0.10	0.09
Fito	0.05	0.00	−0.06	−0.09	−0.08	−0.10
Procu	−0.12*	−0.23	0.02	0.04	−0.17	−0.21*
Time	0.22	0.11	0.05	−0.14	0.29**	0.29**
Step 2						
Space		−0.16*		0.00		−0.18*
Persons		0.24**		0.04		0.10
Days		−0.2***		−0.2*		0.07
Flexibility		0.05		−0.08		0.03
Responsibility		0.22**		0.32**		−0.01
Time_telework		0.08		0.33**		−0.07
R^2	0.13	0.26	0.06	0.20	0.17	0.22
Adjusted R^2	0.08	0.19	0.01	0.13	0.14	0.14
F	3.19**	3.68**	1.30	2.70**	4.6**	2.9**
Df	133	127	133	127	133	127

Notes: [a]Standardized coefficients. *$p < 0.05$; **$p < 0.01$; ***$p < 0.10$

Table II.
Hierarchical
regression analysis
for WIF, FIW
and hours[a]

Individuals who have an exclusive room for working encounter less WIF and work less additional hours per week. According to Wapshott and Mallet (2012), if an individual can appropriate a place at home for working, he or she will find a symbolic mechanism to cognitively separate the link between work and family, while that same space will be recognized by other members as a working area, which allows individuals to suffer less distractions (Peters *et al.*, 2003). A qualitative study carried out by Pérez and Gálvez (2009) also showed the importance to women of having an ideal space for teleworking.

Having other persons at home while teleworking generates a negative impact on family time. This variable is the one that showed the greatest effect on FIW. A significant effect of the presence of persons on WIF and additional hours worked was not found. It is possible that this happened because people place more importance to the family and give priority to situations that emerge at home while they work; if this is the case, the feeling that work is limiting the possibility of taking care of other matters is increased. On the other hand, having to pay attention to family matters while teleworking may exhaust teleworkers more, although they do not actually work additional hours.

Based on the results obtained, increases in the number of days that individuals telework helps reduce family and work interference. This result is consistent with the findings of Hill *et al.* (2003) and Maruyama *et al.* (2009). It is possible that the longer individuals telework, the better they have to organize their time, and establish strategies to avoid work-family conflicts.

The longer individuals telework, the more the FIW. It may be that the members of the household get used to seeing the person working, leading them to think that that person is available to take care of family matters, which would obviously generate interferences.

One of the hypotheses proposed is that those who have more responsibilities outside of their work may receive more benefits from telework, since they would have greater flexibility to organize their tasks while they are at home (Shockley and Allen, 2007). However, the results of this study reveal that the effect is totally the opposite, i.e., those who have more responsibilities undergo greater work-family conflicts. One possible explanation of this result is that telework does not imply flexibility: individuals who are teleworking and do not have flexibility to carry out their tasks on a schedule that is convenient for them, and who are being highly controlled by their supervisor, are constrained in the same manner as those who work at their office from taking care of responsibilities outside of work at the most convenient time for them. Being at home may also entail greater conflicts for teleworkers if relatives or friends do not understand that they are not available to take care of other matters. In addition, the level of responsibility may have a distracting effect; for instance, Jensen (2007) found that distractions caused by domestic responsibilities of teleworkers have a negative effect on their performance.

Lastly, it was not possible to prove that individuals with flexibility in scheduling their work hours show less work-family conflicts or work fewer hours. Flexibility may have a positive effect among those who telework intensively; however, the sample in the present study mainly consisted of persons who telework one or two days per week. Another aspect that may affect the influence of flexibility is the supervisor's leadership style. Individuals may have some type of flexibility, but if their supervisor is constantly controlling them, the advantages of having flexibility may be cancelled out.

Practical implications

Latin American investigators have pointed out the need to define the conditions of the environment in which telework must be carried out to create adequate work conditions (Bonilla *et al.*, 2014; Gareca *et al.*, 2007; Contreras and Rozo, 2015). Without such

conditions, the effects of teleworking may be counterproductive for the well-being of individuals and firms (Contreras and Rozo, 2015). The present study provides scientific evidence based on empirical data, which helps define some of the types of conditions mentioned by the authors. These findings therefore make it possible to derive several practical implications for public organizations that promote telework, and for program managers.

An initial implication is the need to consider elements pertaining to the environment in which telework will be carried out, since they may play an unfavorable role in the conciliation between family and work life. An environment, in which teleworkers do not have a suitable space for working, or where they will be surrounded by persons at home while they work, impedes this type of conciliation. Furthermore, those teleworkers who have many responsibilities outside their work environment may experience problems. Organizations must therefore be well aware of who is assigned to teleworking and the conditions under which those persons will work. If those conditions are not favorable, it will be necessary to look for mechanisms to prevent telework from generating conflicts rather than the expected benefits. Making workers aware of the conflicts they may experience when there are other persons at home, or when they have many non-work responsibilities, will help prevent these negative effects from the beginning. Providing advice on effective time-management will also be of great help.

The second implication is related to the characteristics of the telework program itself. If telework is more intensive, it will be more effective in terms of promoting work-family conciliation. This fact should call the attention of those who manage telework in the organizations studied, since most of the individuals work only sporadically. In addition, both managers and teleworkers must pay attention to the time an individual has been teleworking to carefully monitor whether or not the interference of the teleworker's family with work increases in time.

Limitations

This investigation was carried out using data only from teleworkers, so there are no counter-factual examples with which to evaluate the impact of different teleworking conditions. To be able to evaluate such impacts, an experiment or quasi-experiment would have to be formulated with a teleworker group and a control group, for each one of the explanatory variables used in this research.

It would be relevant to delve more deeply into the impacts of flexibility on the dependent variables analyzed. To accomplish this, it would be useful to sample full-time teleworkers. It is necessary to analyze supervisors' management style and their moderating effects, and to study family dynamics surrounding telework in more detail, to understand the effect it has on a teleworker's family. The significant influence of teleworking time on conflict requires a more in-depth explanation, which could be better understood through analyzing the behavior of the family when the individual is teleworking.

An investigation should also be carried out to determine whether the effect of the level of responsibilities the individual has outside of the work environment on work-family conflict changes depending on the individual's efficient time management capacity.

Other variables may also moderate the effects of teleworking, such as individuals' characteristics or qualities, ergonomic conditions in the work place, and whether the business is public or private. Further studies are therefore required to inquire more deeply into possible conditioning factors moderating teleworking effects. This would permit us to understand how telework should be carried out and who should do telework, to provide more benefits for business as well as for the teleworkers themselves.

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