

How job demands affect absenteeism? The mediating role of work–family conflict and exhaustion

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Abstract

Purpose To investigate how psychosocial factors (such as job demands and work–family conflict) produce absenteeism in the workplace, using the health impairment process of the job demands–resources model. According to this model, job demands lead to burnout (often measured with the emotional exhaustion component), which in turn could lead to outcomes (such as absenteeism). Work–family conflict (WFC) was also studied, because of contradictory results collected in the existing literature on absenteeism in the workplace, regarding the role of WFC in causing absenteeism.

Methods Data were collected on 245 workers using both subjective (questionnaire on psychological risk factors and work-related health) and objective data (sickness leave frequency records). To test the hypothesis that job demands and WFC contribute to absenteeism in the workplace, a subsequent mediation analysis was used, which analysed both (a) the subsequent mediation of WFC and emotional exhaustion and (b) the separate roles played by the mediators proposed (WFC and emotional exhaustion).

Results Job demands affect absenteeism through the subsequent mediation of WFC and emotional exhaustion. In

addition, emotional exhaustion mediates the relationship between job demands and absenteeism, while WFC does not. **Conclusion** In conclusion, subsequent mediation highlights the role of emotional exhaustion in causing absenteeism; in fact, when emotional exhaustion is included in the analysis, job demands are associated with higher levels of absenteeism. The results of this study suggest that without the concurrent contribution of emotional exhaustion, WFC does not influence absenteeism in the workplace. Our findings are useful for organizations that aim to reduce absenteeism.

Keywords Work–family conflict · Absenteeism · Strain · Emotional exhaustion · Job demands

Introduction

Working conditions in modern society are characterized by increasing psychosocial risk factors, such as job demands, in facing daily work activities. These demands could lead to consequences affecting both the worker (e.g. adverse health conditions, including depression) and the organization (i.e. sickness absence) in terms of decreased organizational productivity (Cooper et al. 1996; Sutherland and Cooper 1990).

For example, a study conducted by Stewart et al. (2003) reports that, among workers in the USA, the average depression-related absenteeism productivity loss is almost 1 h every week, which is equivalent to almost 8.3 billion US dollars. Also in the European context, the European Foundation for the Improvement of Living and Working Conditions (Eurofound 2012) claims that absenteeism produces high costs for society in terms of lost productivity and puts a burden on most social security systems.

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Looking at the relationship between psychosocial risk factors and (a) workers' health, (b) sickness absence within organizations, and, increasingly, (c) public health issues, the work–family interface plays a central role. The interface of work and family life, in relation to workers' health and well-being, has become a topic of growing prominence (Clays et al. 2009), because work–family conflict (WFC) reflects the interaction between work and personal life (Wang et al. 2010). In fact, in the 24/7 economy, employers often expect their employees to put in extra time and to take jobs with non-standard work schedules (Presser 2005), which could have a strong negative influence on the work–family interface and workers' health (Olsen and Dahl 2010). Also, the International Labour Organization (ILO) in 2003 highlighted the role of WFC as an emerging risk factor in the quality of working life (Gospel 2003). Hence, the aim of this study is to better comprehend how job demands, work–family interface and workers' health could potentiate absenteeism in the workplace.

Job demands–resources model and absenteeism

The relationship between psychosocial risk factors, workers' health and withdrawal behaviours has been studied comprehensively using various models. One of the most used is the Job Demands-Resources model (Demerouti et al. 2001), which has made its way into literature, confirming the relationship between psychosocial characteristics and outcomes such as absenteeism (Demerouti et al. 2011). In fact, this model is one of the recent widely used models in stress evaluation research. This model assumes that employees' well-being is related to a wide range of workplace characteristics classified into two overarching categories, namely job demands and job resources. Job demands refer to 'those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and/or psychological costs'. In contrast, job resources refer to 'those physical, psychological, social or organizational aspects of the job that (a) are functional in achieving work goals, (b) reduce job demands and the associated physiological costs, or (c) stimulate growth and development' (Bakker et al. 2005, p. 170). This model represents a flexible instrument that enables researchers and practitioners to examine a wide variety of work-related factors that affect employees' well-being, thereby allowing the choice of these factors to be tailored to the specific occupational context under study (Bakker and Demerouti 2007). Furthermore, this model consists of two main processes: the health impairment hypothesis and the motivational hypothesis. The first hypothesis could be useful in understanding absenteeism in organizations, because it is strongly related

to adverse mental health conditions and postulates that high job demands (e.g. work overload) may increase the likelihood of burnout in workers and may therefore lead to further negative outcomes related to the depletion of energy and to health problems (Bakker et al. 2003a). Specifically speaking, according to the health impairment hypothesis, perceived job demands could lead to job strain such as feelings of exhaustion, which are related to increased sickness absenteeism (Bakker et al. 2003a).

Although job demands are not necessarily considered negative, they may become job stressors when meeting those demands requires considerable effort from which the worker does not sufficiently recover (Meijman and Mulder 1998).

Many studies have demonstrated the relationship between specific job demands and poor health among workers. A recent study published by Schütte et al. (2014), based on the European Working Conditions Survey 2010 and taking into consideration 25 psychosocial risk factors simultaneously, showed that 13 of these factors were significantly related to poor well-being among both genders. Two of those 13 were the quantitative demands factor and the work–life imbalance factor. Moreover, many studies (e.g. Bakker et al. 2003a) demonstrated the relationship between specific job demands and burnout measured with emotional exhaustion, which is the central component of burnout (Van Dierendonck et al. 2001). Emotional exhaustion refers to 'feelings of being overextended and depleted of one's emotional and physical resources' (Maslach et al. 2001 p. 399). The relationship between job demands and emotional exhaustion has been widely demonstrated among different occupational groups (Demerouti et al. 2001).

It has been suggested that sickness absence could be a coping mechanism to deal with stressful job demands, instead of merely a behavioural reaction to dissatisfaction (Johns 1997; Kristensen 1991). In fact, sickness absence could constitute a strategy to save energy, provide an opportunity for recuperation and detach oneself from a stressful, non-rewarding, non-supporting and conflictual work environment (Anagnostopoulos and Niakas 2010). In the correlating literature, two different kinds of absenteeism are defined: voluntary and involuntary absenteeism. The first one is measured in terms of frequency, i.e. by the number of spells or times an individual has been absent during a specific period, irrespective of the length of each of those spells (Demerouti et al. 2011). In contrast, involuntary absenteeism is measured in terms of duration, i.e. by the total length of time an individual has been absent over a specified period, regardless of the number of absence spells (Bakker et al. 2003b). Bakker et al. (2003b) defined voluntary absenteeism as a function of employees' motivation, while they defined involuntary absenteeism as the inability (rather than unwillingness) to go to work, as a result of

illness or other exceptional circumstances. In that sense, also in accordance with the studies of Bakker et al. (2003b) and Schaufeli et al. (2009), which showed that absence duration is related to the health impairment hypothesis of the JD-R model, involuntary absenteeism (measured as absence duration) seems to be the right way to analyse the relationship between job demands and absenteeism.

Some studies have investigated the relationship between workers' health and absenteeism. Burnout levels are associated with higher absence rates (Anagnostopoulos and Ntakas 2010; Bourbonnais and Mondor 2001); with respect to the health impairment process, antecedents of burnout (e.g. increasing workload) appear to have an impact on higher rates of sickness absence (Rauhala et al. 2007), while job demands are predictors of burnout and indirectly of absence duration (Bakker et al. 2003b).

Work–family conflict

As recently demonstrated (Schütte et al. 2014), WFC is one of the key factors that could lead to poor mental well-being. Work–family conflict is defined as ‘a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect’ (Greenhaus and Beutell 1985, p. 77). In other words, the participation in one role is more difficult because of concurrent participation in the other role (Proost et al. 2010).

However, despite work–family conflict is a central construct in the occupational health field, the corresponding literature is somewhat contradictory in respect of the role played by this variable in the health impairment process. Simbula et al. (2011) used WFC as a job demand that affects emotional exhaustion; Clays et al. (2009) used WFC as an antecedent of sickness absence, mediated by environmental psychosocial factors, while Olsen and Dahl (2010) found associations between a particular job demand (working irregular working hours) and both sickness absence and work–family conflict and furthermore that working irregular working hours with no flexibility caused work–family imbalance. Moreover, Grandey and Cropanzano (1999) investigated the effects of work role stressors on WFC. In their study, role stressors have been measured as role conflict and role ambiguity, which are considered two of the most important job demands in the JD-R model (Bakker et al. 2014).

The relationship between WFC and sickness absence is somewhat uncertain. The review on the outcomes of work–family conflict (Allen et al. 2000) revealed the need for more research aimed at examining work-related behavioural outcomes such as absenteeism, considering at the time, there was only a handful of studies on the subject, whose results were inconsistent in describing whether there is a relationship between WFC and absenteeism.

Other studies investigated the association between work–family conflict and sickness absences, but to date, the relationship is still not fully explained. For example, Jansen et al. (2006), in their longitudinal study, found that in both men and women, there is evidence that WFC can be considered a predictor of sickness absence. Also, Donders (2005) found positive associations between work-to-family interference and repeated or extensive sick leave among Dutch university employees, both male and female. However, other studies suggested that there is no association between the work–home interference and sickness absence (e.g. Clays et al. 2009). More recently, a meta-analysis of Amstad et al. (2011) took into consideration the relationship between WFC and absenteeism, categorized as a work-related outcome. The results showed that WFC has an effect on absenteeism, although more research is needed.

Aim and hypothesis

Based on what has been said so far, there exists a clear need to better define the roles played by job demands, work–family conflict and adverse mental health conditions (e.g. emotional exhaustion) in determining sickness absences using the job demands–resources model (in particular, the health impairment hypothesis), which clearly defines how to analyse the relationships between those constructs. The current study aims to contribute to the extension of the JD-R model, through the investigation of the impact of job demands on absenteeism, by adding work–family conflict and emotional exhaustion as mediators operating in serial. Therefore, the main aim of this study is to better understand the entire process that links job demands to absenteeism, considering work–family conflict and emotional exhaustion as subsequent mediators of this relationship. JD-R model has been studied with many extensions (Schaufeli and Taris 2014), and some studies investigated the subsequent mediation in the JD-R model (e.g. Xanthopoulou et al. 2008; Guglielmi et al. 2014). Thus, we hypothesize that:

H1 Job demand will be positively related to absenteeism through the subsequent mediation, first of work–family conflict and then, emotional exhaustion.

Secondly, we developed two exploratory hypotheses in order to understand the roles of work–family conflict and emotional exhaustion separately. The first one focuses on the role of emotional exhaustion and practically tests the health impairment hypothesis:

H1a Emotional exhaustion mediates the relationship between job demands and sickness absence.

The second one is related to the role of work–family conflict in the health impairment hypothesis:

H1b Work–family conflict mediates the relationship between job demands and sickness absence.

Methods

Participants and design

Data were collected on 245 Italian workers, who were participants in a project aimed to assess work-related stress in a retail company located in Northern Italy. The main activity of the company is to deliver food and goods to grocery stores. The employees participated in the study voluntarily; 51.4 % of them were female (mean age of 43.9 years; s.d. = 8.89) and 58.4 % were married. Most of the workers have at least one child (60.8 %). The mean occupational tenure was 14.64 years (s.d. = 10.07). Concerning the working hours, the reported mean number of working hours in a week was 38.06 (s.d. = 5.35). After an informative session on work-related stress, lasting 1 h, the participants completed a questionnaire. The human resources department provided the data concerning sickness leave. To relate these data to the questionnaire data, a personal code was created to link the two together. As previously stated, high rates of work–family conflict could produce higher levels of absenteeism, corresponding to workers' potential use of sickness absence as a way to cope with stressful conditions at work. Therefore, a longitudinal study with a 6-month follow-up period was conducted. As indicated by Jansen et al. (2006), a follow-up period between WFC and sickness leaves should probably not be too long, because it is unlikely that WFC would influence absence behaviour after 2 years. This manuscript does not contain clinical studies or patient data.

Measures

Data were collected with both subjective and objective measures. The former consisted of a questionnaire, composed of socio-demographic questions and four main scales measuring job demands, work–family conflict, emotional exhaustion and absenteeism.

Job demands

Job demands were assessed using three items related to the effort perceived by the workers (Siegrist et al. 2009; Italian validation by Zurlo et al. 2010). Items were scored on a four-point scale (1 = totally disagree; 4 = totally agree).

One example item is 'I have constant time pressure due to a heavy work load'.

Work–family conflict

WFC was measured with three items referring to the conflict experienced in the management of working and family life (Guglielmi et al. 2011). Items (e.g. 'My working hours prevent me from managing my private life in a satisfactory manner') were scored on a five-point Likert scale (1 = totally disagree; 5 = totally agree).

Emotional exhaustion

Emotional exhaustion was measured with the emotional exhaustion dimension of the MBI-General Survey (Schaufeli et al. 1996; Borgogni et al. 2005). The five-item scale was scored on a seven-point frequency Likert scale (0 = never to 6 = every day). One example item is 'I feel emotionally drained by my work'.

Additionally, we measured absenteeism with objective data, as self-reporting data on sickness absence may have drawbacks in terms of common method variance (Jansen et al. 2006).

Absenteeism

Absenteeism was measured as involuntary absenteeism, i.e. through the total length of time an individual has been absent over a specified period, regardless of the number of absence spells (Bakker et al. 2003b). Specifically, absenteeism has been measured as the number of days a worker has been absent during 1 year. The period of 1 year was chosen because it increases stability in the absence measures (Hammer and Landau 1981).

The mean absence duration was 12.17 (SD = 19.9; min = 0; MAX = 106) and most of the participants (69.8 %) has been absent from work. Since absence duration showed a considerable skewness (2.44) and kurtosis (6.05), a log₁₀ transformation was performed in order to approach a normal distribution (Aiken and West 1991).

Furthermore, five confounding variables were included in the analysis. The first one was gender, as some authors (e.g. Frone et al. 1992) claim that, based on the gender-role socialization theory, work–family interference would have greater impact on women. In addition, gender should be considered as a confounding variable in the relation between WFC and sickness absence, because of gender differences in employee absenteeism (Jansen et al. 2006). In addition, in line with the most recent meta-analysis on WFC outcomes (Amstad et al. 2011), we also included parenthood and time spent at work as control variables. Parenthood refers to having at least one child. Also organizational

Table 1 Descriptive statistics and Cronbach's alpha ($n = 245$)

Variables	Item	M	SD	α	1	2	3	4	5	6	7	8
Gender ^a	–	.47	.50	–	–							
Age	–	43.9	8.89	–	.070	–						
Time spent at work	–	38.06	5.35	–	.319***	.034	–					
Parenthood ^b	–	.61	.49	–	–.075	.341***	.023	–				
Role ^c	–	.22	.41	–	.272***	.131*	.495***	.097	–			
Job demands	3	2.59	.74	.67	.064	.050	.221**	–.019	.283***	–		
Work–family conflict	3	2.49	.95	.69	–.006	.094	.228***	.028	.214**	.371***	–	
Emotional exhaustion	5	14.46	7.32	.86	.011	.081	.036	–.064	–.040	.332***	.548***	–
Absenteeism	–	2.06	2.58	–	–.137*	.145*	–.220**	.087	–.237***	.011	.101	.390

$N = 228$, *** $p < .001$; ** $p < .01$; * $p < .05$

^a Male = 1; 47.9 %; ^b having at least 1 child = 1; 60 %; ^c supervisor = 1; 21.6 %

role (i.e. being or not a supervisor) has been included as a control variable as supervisors usually have higher job demands. Moreover, age has been included as a control variable too.

Data analysis

SPSS version 20.0 was used to analyse the data. Internal consistencies of the scales (Cronbach's α) used were computed, and the scores ranged from .67 to .86.

The Preacher and Hayes analytical approach (2004) was used to test our hypotheses. This mediation approach tests the indirect effect between the predictor and the criterion variables through the mediator, using a bootstrapping procedure that addresses some weaknesses associated with the Sobel test (Preacher and Hayes 2004). The most useful model to test our research hypothesis was model 6, which consisted of SPSS macros for bootstrapping, with multiple mediators operating in serial (Hayes 2012). To compute the direct and indirect effects, all path coefficients in the model were estimated concurrently. Furthermore, the bootstrapping procedure was used to compute formal statistical tests of the specific indirect effects. This method can produce an estimate of the indirect effect, including the 95 % confidence interval. When the 95 % confidence interval does not include zero, the indirect effect is significantly different from zero at .05 level.

Results

As formerly defined, the Preacher and Hayes analytical approach allows us to test the direct and indirect effects of the variables considered. Parenthood did not show a relationship with the variables considered in our main hypothesis (Table 1); thus, it has been excluded by the mediation

analysis. In Table 2, we provided estimates of all the path coefficients, as well as indirect effects along with the 95 % bias-corrected bootstrapped confidence intervals for our path estimates. Concerning the direct effects, high job demands appear to cause higher WFC and emotional exhaustion. WFC has an impact on emotional exhaustion, and emotional exhaustion is positively related to absenteeism.

Regarding the indirect effects (see Table 2), our main hypothesis (H1) suggested the possibility that work–family conflict and emotional exhaustion sequentially mediate the relationship between job demands and absenteeism. Thus, hypothesis 1 is confirmed; in particular, the results indicate that job demands are associated with higher levels of work–family conflict and emotional exhaustion, which in turn is related to higher levels of absenteeism. Concerning hypothesis 1a, in line with the health impairment hypothesis of the JD-R model, results show that emotional exhaustion mediates the relationship between job demands and absenteeism; thus, hypothesis 1a is confirmed. In contrast, hypothesis 1b is not confirmed, as WFC does not appear to mediate the relationship between job demands and absenteeism. In addition, as demonstrated by our findings, gender, time spent at work and organizational role have no notable effect on absenteeism, while age has a positive effect on it.

Discussion

The present study focused on absenteeism in the workplace, using the health impairment hypothesis of the JD-R model. This model is useful to test the relationship between job demands, work–family conflict, emotional exhaustion and absenteeism.

The findings highlight the added value of using the subsequent mediation analysis, which confirms our main

Table 2 Path coefficients and indirect effects for mediation models

	Path coefficients			Indirect effects	
	Absenteeism (AB)	Work–family conflict (WFC)	Emotional exhaustion (EE)	Estimate	Bias-corrected bootstrap 95 % CI
<i>R</i>	.499	.426	.602		
<i>R</i> ²	.249	.181	.362		
MSE	.297	.773	35.575		
<i>F</i>	10.797	10.183	21.670		
<i>p</i>	.000	.000	.000		
Job demands (JD)	−.048 (.05)	.421 (.08)***	1.888 (.58)*		
Work–family conflict (WFC)	−.037 (.05)		4.053 (.44)***		
Emotional exhaustion (EE)	.035 (.01)***				
Gender ^a	−.108 (.08)	−.159 (.12)	.977 (.83)		
Age	.010 (.00)*				
Time spent at work	−.014 (.01)	.025 (.01)*	−.062 (.09)		
Role ^b	−.207 (.11)	.178 (.17)	−3.758 (1.13)**		
Total				.112 (.03)	.058; .176
(H1) JD → WFC → EE → AB				.061 (.02)	.034; .107
(H1a) JD → EE → AB				.067 (.03)	.019; .131
(H1b) JD → WFC → AB				−.016 (.02)	−.057; .022

Bootstrap confidence intervals were constructed using 5000 samples. Standard error in parentheses

*** $p < .001$; ** $p < .01$; * $p < .05$

^a Male = 1; ^b supervisor = 1

hypothesis that job demands are associated with higher levels of WFC and emotional exhaustion, which in turn affects absenteeism. Furthermore, our findings provide some interesting results. We found no direct association between job demands and absenteeism. This is partially in line with the previous literature, which provided contradictory results concerning the association between job demands and absenteeism. Some studies did not show any positive association between job demands and absenteeism, as for example, Ishizaki et al. (2006) that found no clear relationship between job demands and sickness absences. Other studies (e.g. North et al. 1993; Smulders and Nijhuis 1999) showed an association between lower job demand and an increased risk of sickness absence. Furthermore, a study of Smulders and Nijhuis (1999) demonstrated a significant negative association between job demands and sickness absences. These contradictory results and the lack of a direct association between job demands and absenteeism could be explained by the fact that the positive effect of job demands on absenteeism is generally observed under favourable labour market conditions, where employees can choose between taking sick leave or changing jobs; however, when the worker is strongly committed to the job, job demands may preclude taking sick leave (Kondo et al. 2006). In situations where there are no favourable market conditions due to

the economic crisis (as in our study), it could be difficult for workers to take sick leave, because of self-imposed and external pressures to perform their jobs to consistently high expectations. This explanation is supported by Eurofound (2012), who indicated job insecurity as a risk factor that is associated with lower levels of absenteeism. In fact, Eurofound found that the higher the market pressures felt by individuals, the less these individuals will tend to take sick leave from the workplace. In addition, a study developed by Jansen et al. (2006) found that the relationship between WFC and sickness absence operates mainly through factors associated with the psychosocial work environment. This suggestion could also explain the lack of association illustrated in the direct effects results, where job demands are not related to absenteeism without the mediation effect work–family conflict and emotional exhaustion.

With respect to our findings on the direct effects, we found a positive association between emotional exhaustion and absenteeism, which is in line with previous studies on the subject, such as the study by Schaufeli et al. (2009) which found a relationship between emotional exhaustion and duration of sick leaves. This result is also in agreement with the stress reaction hypothesis and other studies (Iversen et al. 1998). In fact, emotional exhaustion has a direct impact on absenteeism and mediates both the relationships

between job demands and absenteeism, and between job demands and the subsequent mediation tested. In addition, we discovered that work–family conflict has an impact on emotional exhaustion, but if emotional exhaustion is not considered, associations regarding an increase in sickness leave cases cannot be explained otherwise. This also indicates that sickness absences are not merely a sign of the adverse health effects of job stressors, but rather can be determined individually by the integration of several important factors, such as work environment peculiarities, the workers' individual health perceptions and their coping possibilities (Kristensen 1991).

Furthermore, as we could expect from previous findings in literature, work–family conflict was not directly related to absenteeism. This result is in line with previous research. In fact, as Demerouti et al. (2011) reported, work–family conflict seems to be related to *subjective* absenteeism but is lessened when absenteeism is measured *objectively*, through analysis of company records. Regarding the confounding variable included, parenthood did not affect any of the variables studied, while time spent at work positively influenced work–family conflict. These results partially confirm the meta-analysis of Amstad et al. (2011) which found no moderation effect of parenthood and time spent at work on work-related outcomes (such as absenteeism).

Concerning gender, we found that despite the gender-role socialization theory (Frone et al. 1992), which postulates that the impact of WFC should be higher for women, gender had no effect on the variables considered and the relationships studied. This highlights the fact that psychosocial factors in the workplace have far more bearing on workplace absenteeism with respect to gender.

Strengths and limitations

The first strength is that, in this study, both subjective (the compositional elements of the questionnaire) and objective (numbers of sickness leave cases) data were used. In the previous literature, absenteeism has often been studied subjectively, but the use of different kinds of measures is recommended in stress evaluation research, as investigating psychosocial risk factors using only subjective or objective measures could produce biased results, for example from personal interpretations of risk factors (Guglielmi et al. 2013). In addition, Lidwall et al. (2009) postulated that, in studies aimed at investigating the relationship between work–family interference and sickness absence, both objective and subjective measures should be considered. Another strength of this study was the statistical analysis used (Preacher and Hayes 2004; Hayes 2012), which overcomes bias related to the previous statistical analysis and allows us to use the subsequent

mediation analysis and to analyse the roles played by the different variables in the process that lead to absenteeism. Moreover, despite many studies investigating the health impairment process of the JD-R model, there is a lack of studies that considered the indirect effects through subsequent mediation as our study did. However, future research should investigate the health impairment process with multiple mediators operating in serial in a longitudinal way. Regarding the limitations of this study, we used the objective measure only for the outcome variable, but further research should also focus on testing these hypotheses with objective measures of the job demands variable. Furthermore, absenteeism was not controlled for its baseline. In fact, although other studies did not also consider sick leave at the baseline (e.g. Demerouti et al. 2011), future studies should introduce this variable in the analysis. Moreover, although duration of sickness leave has been considered by some authors as involuntary absenteeism, our study did not consider short-term and long-term sickness absences. Thus, it is difficult to state with certainty whether duration of sickness leaves could be considered as involuntary absenteeism. Secondly, the formulated hypotheses focused only on the health impairment process of the Job Demands-Resources model, but it is plausible to also hypothesize that the motivational process could help to better comprehend the absenteeism process. Linked to this, as this study is cross-sectional, as independent and mediator variables have been measured at the same time with sickness leave related in a longitudinal way, future studies should also consider how work–family conflict could harm workers in the short and in the long-term period. Furthermore, another limitation of the study is that it has been conducted only in the retail sector.

Practical implications

Absenteeism in the workplace is an occupational health-related issue. Our findings have important implications for organizations that aim to reduce costs related to absenteeism and improve productivity by changing the psychosocial work environment and, consequently, workers' mental health conditions. Our results confirm the hypothesis of a relationship between poor mental health (measured as emotional exhaustion) and absenteeism. This suggests that interventions aiming to reduce absenteeism should focus not only on the reduction in job demands and WFC, but also on the relationship between WFC and emotional exhaustion. For example, interventions should focus on how to jointly manage job demands and WFC, in order to not affect the workers' emotional exhaustion levels. Moreover, based on our results, which showed the mediating role of emotional exhaustion in determining absenteeism, when job demands and work–family conflict could not be

modified, stress management interventions should focus directly on emotional exhaustion.

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

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