Job insecurity, workload and job exhaustion in temporary agency workers (TAWs): gender differences

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Abstract

Purpose – Different studies underline that Perceived Job Insecurity (PJI) has negative consequences at both individual and organisational level. Some authors investigated PJI in Temporary Agency Workers (TAWs) but these studies did not focus on specific countries and did not discuss the relationship with job exhaustion. Other researchers explored gender differences in PJI and found different results; some investigated differences in PJI perception and others its relationship with the outcome of stress or well-being. The aim of this study is to inquire about the effects of PJI (as a demanding condition) on job exhaustion, considering the mediation role of workload and exploring differences between male and female TAWs.

Design/Methodology/Approach – This research involved 474 Portuguese TAWs (209 men, 265 women). Data was collected through a self-report questionnaire; data analyses were performed using IBM Spss Statistics 22 for descriptive statistics, correlations and t-test; Mplus7 was used to estimate a multi-group structural equation model and to test the mediation.

Findings – The results confirmed that workload is a mediator and indicated gender differences in how PJI relates to workload and job exhaustion in TAWs. In fact, the mediation of workload in the relationship between PJI and job exhaustion was partial in men and total in women: in the women group the direct effect of PJI on job exhaustion is not significant, and the indirect effect mediated by workload is significant; in the men group both direct and indirect effects are significant.

Originality/Value – This paper contributes to extend the research on job insecurity of TAWs in a specific national context and highlights gender differences in the relationship between PJI and job exhaustion.

Keywords Temporary Agency Workers, Job insecurity, Job exhaustion, Gender differences
Paper type Research paper

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Introduction

The growth in fixed-term contracts and increased outsourcing to temporary agencies have implied benefits for employers and costs for employees: temporary employment provides flexibility to organizations but poses demands on employees, thus raising their job insecurity (De Witte, 1999; De Cuyper *et al.*, 2009). Some studies have already investigated the association between job insecurity and its psychological outcomes in temporary workers, indicating that it has various harmful consequences (De Cuyper and De Witte, 2007; Parker *et al.*, 2002; Sverke *et al.*, 2002). However, they have considered Temporary Agency Workers (TAWs) only to a minor extent (De Cuyper *et al.*, 2009), so further studies are needed regarding employees with specific temporary contracts.

Another unresolved issue within the context of job insecurity is gender differences (Okurame, 2014). Some studies have focused on the differences in job insecurity perception, other studies with regard to the relationship with outcomes of stress or well-being. For example, some research found that men experience greater job insecurity than women (e.g. Gaunt and Benjamin, 2007), others showed that the experience of job insecurity is more distressing for women than for men (e.g. Kinnunen *et al.*, 2000). Moreover, other authors still have not identified gender differences in job insecurity experience (Cheng and Chan, 2008; Keim *et al.*, 2014).

Our study considers these open issues and investigates the perception of job insecurity among TAWs as well as its relationship with workload and job exhaustion. In our research, we explore gender differences within the perspective of the gender role theory (Barnett *et al*., 1995; Simon, 1992), considering that Portugal is a traditional country in terms of gender ideology, where men attribute great value to their job role (Aboim, 2010; Pereira, 2010). In fact, some scholars pointed out that women are more likely to find a temporary job that satisfies them than men (Booth *et al.*, 2002) and less bothered by the lower job security typically afforded by temporary jobs (Aletraris, 2010). Instead, men seem to be more sensitive to social pressures that lead them to work and to maintain a secure job (Bertolini, 2013), according to the idea of the *main breadwinner* (Barnett *et al*., 1995; Simon, 1992). This may be particularly true in Portugal, a country where traditional values are still deep-rooted (Aboim, 2010; Pereira, 2010).

Job insecurity and TAWs

Over the past two decades, changes in working life have caused feelings of insecurity in many employees. The psychological concept of job insecurity refers to concerns about the continuation of one's job (Sverke and Hellgren, 2002) – i.e. workers fear losing their job and becoming unemployed (De Witte, 1999). Job insecurity can be conceptualized as a work stressor, in the background of the transactional stress theory (Lazarus and Folkman, 1984). According to the transactional stress theory, faced with a possible stressor, individuals undertake two appraisals: a primary appraisal, to evaluate if the occurrence is a threat to personal well-being and if it leads to harm or loss; a secondary appraisal, to evaluate resources and coping strategies to face it. It emerges that, when the job is perceived as being at risk, it is most likely interpreted as a threat since employment is important for the individual's personal, social and economic life. In addition, uncertainty about the future of the job, contrary to the certainty of dismissal, makes it hard to identify and utilize efficient coping strategies during the secondary appraisal (De Witte, 1999).

So far, two meta-analyses (Cheng and Chan, 2008; Sverke *et al.*, 2002) resumed the most studied consequences of job insecurity on employees' well-being. PJI resulted as being negatively related to job satisfaction (Rosenblatt and Ruvio, 1996), organisational commitment (McFarlane *et al.*, 1991), psychological health (Wilson *et al.*, 1993), physical health (Isaksson *et al.*, 2000), work

performance (Rosenblatt *et al.*, 1999), trust (Pearce *et al.*, 1994) and job involvement (Kuhnert and Palmer, 1991); and positively related to turnover intention (Ameen *et al.*, 1995).

Perceived job insecurity (PJI) is also classified as a job demand (Schaufeli and Taris, 2014), for example in *Job Demands-Resources Model* (*JD-R model*, Bakker and Demerouti, 2007; Demerouti *et al.*, 2001), and is likely to be positively associated with negative outcomes, like job exhaustion, which is one of the core dimensions of the burnout syndrome (Maslach *et al.*, 2001; Schaufeli and Taris, 2005). Previous studies confirmed this positive relationship between PJI and job exhaustion (Bosman *et al.*, 2005; De Cuyper *et al.*, 2010; Kausto *et al.*, 2005; Piccoli and De Witte, 2015; Vander Elst *et al*., 2012) and our study seeks to contribute to the literature in this direction.

Our study focuses on TAWs that are temporary workers involved in a triangular employment relationship with two organizations: the employment agency that hires them and the client organisation where they actually perform their work (Coyle-Shapiro *et al.*, 2006; Gallagher and McLean Parks, 2001; Giunchi *et al.*, 2015).

Considering the continuing global increase in temporary agency employment penetration rates in the world – 2.0 percent in USA, 1.6 percent in Europe and 1.4 percent in Japan (CIETT, 2014) – concerns about well-being of this working population have attracted the attention of the scientific community for years. Due to the temporary nature of their employment arrangement, TAWs are considered as being involved in an objective insecure situation, which can lead them to subsequently perceive a subjective insecurity (i.e. a feeling of insecurity). Furthermore, the management strategies adopted by agencies, such as providing TAWs short-term assignments to generate a surplus of workers *"on the books"* to meet client demands, have exacerbated a feeling of insecurity and uncertainty in these workers (Forde, 2001). Different scholars have pointed out that it is important to consider the dimension of the employment contract as either a given (Bernhard-Oettel *et al.*, 2005) or an objective situation that implies feelings of security/insecurity (De Witte and Näswall, 2003; Sverke and Hellgren, 2002). However, among the studies investigating job insecurity that considered the type of contract, the majority compares workers with different permanent and temporary contracts, and fails to account for a specific temporary contract population (De Cuyper *et al.*, 2009). Indeed, the studies reporting perception and outcomes of job insecurity in TAWs are comparative and found contrasting results.

Some studies found that TAWs experience job insecurity and show harmful consequences related to it: less job satisfaction and affective organizational commitment (De Cuyper *et al.*, 2009) and more health complaints (Klein Hesselink and Van Vuuren, 1999) than permanent and other temporary workers. Other comparative studies went in the opposite direction: when comparing fixed-term, temporary and agency contracts, and permanent employees in four organisations in the UK, Guest, Mackenzie Davey and Patch (2003) found that those with agency contracts reported a better state of the psychological contract and job security than permanent workers did. Moreover, Vander Steene and colleagues (2001) reported that TAWs compared with temporary workers reported less perceptions of job insecurity, probably because they rely on the agency to provide them with the next assignment, thus feelings of insecurity are mitigated by expectations of security from the agency. However, a more recent study by Chambel and Fontinha (2009) did not confirm this thesis and found, on the contrary, that employees' perceptions of job insecurity can be a threat to the psychological contract with the agency, precisely for their expectations of job security from the agency, in terms of assignments supply, that may or may not be respected.

Thus, it seems very important to examine more closely perceived job insecurity in the specific domain of TAWs and its relationship with outcomes of stress and well-being at work, especially in Portugal which, as well as the other Mediterranean European countries (i.e. Spain, Italy and Greece), has a strict dismissal regulation for permanent workers that acts as a buffer and may further increase the risk of negative outcomes due to job insecurity (OECD, 2014).

With regard to the dimensions of burnout, we decided to exclusively take into account job exhaustion since it was found to be more strongly associated, compared to the other components (Lee & Ashforth, 1996), with important outcome variables regarding the well-being of both

individuals and organisations, such as organisational commitment, job performance, organisational citizenship behaviour and turnover intentions (Cropanzano *et al.*, 2003).

Thus, we assumed that:

H1: PJI is positively related to job exhaustion in TAWs

Another important and less explored issue about PJI is its relationship with workload. Some scholars suggested that job insecurity perceptions might influence some individuals to counteract a perceived threat to their job by increasing their work effort (Richter, 2011) in an attempt to convince management they are valuable to the organisation (Bergman and Wigblad, 1999). Furthermore, results on performance by van Vuuren and colleagues (1991) showed that working very hard could be seen as a way to secure one's job for the future. In addition, some authors reported that job insecure employees worked longer hours (Fischer *et al.*, 2005; Lewis and Cooper, 1999).

Richter and colleagues (2010) tested the possible mediation role of workload between job insecurity and work-family conflict and found it to be an intensifier factor of negative outcomes. In fact, workload is intended as a perceived pressure in completing work tasks and is considered one of the major demands of work (Lee and Ashforth, 1996). Perceived workload was also associated with both job insecurity (Richter *et al.*, 2010) and job exhaustion (Xanthopoulou *et al.*, 2007).

This may be far more likely in the case of TAWs, since several research studies reported that they develop positive attitudes towards organisations, employment agencies and client organisations (Coyle-Shapiro *et al.*, 2006; Giunchi *et al.*, 2015), probably because they want to increase the likelihood of being a permanent position (Chambel *et al.*, 2015). It is likely that to contrast their job insecurity TAWs try to work harder, perceiving a higher workload and showing that they are valuable for the organisation. But, at the same time, they seem to have less autonomy and cover working roles with a higher workload and more repetitive tasks than other groups of workers (Kompier *et al.*, 2009) that, in turn, may have a negative impact on their well-being.

Based on these assumptions, we postulated that workload mediates the relationship between PJI and job exhaustion:

H2: The positive relationship between PJI and job exhaustion is mediated by workload in TAWs

PJI and gender differences

Considering that the intensity of job insecurity effects on health and well-being varies considerably (Sverke *et al.*, 2002), many authors investigated several potential factors among which gender was particularly considered, which might mitigate or worsen its detrimental effects (Cheng and Chan, 2008; Kinnunen *et al.*, 2010; Mäkikangas and Kinnunen, 2003; Näswall *et al.*, 2005; Richter, 2011; Sverke *et al.*, 2002). Some studies focused on gender differences in job insecurity perception, other studies on gender differences in the relationship between PJI and outcomes of stress or well-being.

In studies that focused on gender differences in job insecurity levels and consequences, a few scholars considered gender as a moderator (Kausto *et al.*, 2005; Okurame, 2014; Sverke and Hellgren, 2002). Nevertheless, even these latter researchers found conflicting results: while men and women were comparable in some studies (Cheng and Chan, 2008), some differences were noted in others (Campos-Serna *et al.*, 2013; Gaunt and Benjamin, 2007; Kinnunen *et al.*, 2000; Okurame, 2014; Richter *et al.*, 2010; Rosenblatt *et al.*, 1999).

Considering the interaction between gender and gender ideology, Gaunt and Benjamin (2007) found that traditional men experienced greater job insecurity than traditional women. On the contrary, in a previous study Kinnunen and colleagues (2000) examined perceived job insecurity and its antecedents and outcomes over a one-year period among Finnish employees in three organisations and found female employees to feel more job insecure compared to men, probably

due to the occupational segregation by gender. Furthermore, Campos-Serna and colleagues (2013) recently wrote a review on working and employment conditions as determinants of gender inequalities in occupational health, analysing publications between 1999 and 2010. They found employed women had more job insecurity, lower control, worse contractual working conditions and poorer self-perceived physical and mental health compared to men.

Regarding studies that focused on gender differences in the relationship between PJI and outcomes of stress or well-being, Rosenblatt and colleagues (1999), in a study on Israeli schoolteachers, found that job insecurity adversely affected women job attitudes even more, such as organisational commitment, tendency to quit, resistance to change, perceived performance and perceived organisational support, compared to men. Instead, Richter and colleagues (2010) in a longitudinal study on the relationship between job insecurity and work-family conflict mediated by workload found that men reacted more strongly to job insecurity, by reporting a higher workload, and by reporting more work-family conflict in connection with job insecurity than women. Moreover, in a recent study investigating the relationship between job insecurity and career engagement in the Nigerian-banking sector, Okurame (2014) reported that when men experienced higher levels of job insecurity, the negative effects on proactive career behaviour was significantly stronger.

Our study was conducted in Portugal, a country where traditional values are still deep-rooted, emphasising a separation in gender roles between male and female, and where the importance of the family roles and natural aptitude of women for child-rearing and domestic labour is foregrounded (Aboim, 2010; Pereira, 2010). It is thus possible to consider Portugal as a country where the explanation of gender differences in the level of job insecurity and its consequences on well-being can be inscribed in the framework of gender role theory. According to gender role theory, family roles such as *mother* and *spouse* are more central to the identity of women, whereas work roles such as *workers* and *main breadwinner* are more central to the identity of men (Barnett *et al.*, 1995; Simon, 1992). In addition, because previous studies were conducted with permanent workers it is important to verify if the assumptions of gender role theory apply to TAWs.

Thus, we expected to find that:

H3a: PJI is higher for men than for women TAWs

H3b: The positive relationship between PJI and job exhaustion, mediated by workload, is greater for men than for women TAWs

Method

Procedure and participants

Data was collected on TAWs from various companies, including employment agencies and clients located throughout Portugal, including the Island of Madeira. A questionnaire was placed on an online platform and disseminated to the companies through a link to be sent to workers via e-mail. Respondents answered the questionnaire online and were assured of response anonymity and feedback opportunities. There was no incentive (money or otherwise) for participating in the project. The questionnaire allowed us to collect responses from 1,840 TAWs, of which we selected 474 by using a non-probabilistic sampling method based on reasoned choice, where we considered age, education level, industrial sector and agency contracts. The total sample was divided into two groups according to gender: 209 male and 265 female TAWs. Their demographic characteristics are presented in Table I.

INSERT TABLE I

Measures

The study provided a self-report questionnaire consisting of a socio-demographic form and different scales from existing international literature. This instrument comprised the following scales:

Perceived Job Insecurity (PJI). We assessed PJI through an eight-item scale composed of four items from De Witte's (2000) job insecurity measure, which had already been used in a previous study in Portugal (Chambel and Fontinha, 2009), and four reverse items tailored from the job security measure scale developed by Kraimer, Wayne, Liden and Sparrowe (2005). An example of PJI for each scale was, *"I feel insecure about the future of my job"* and *"I am not secure about my job"* respectively. The eight items were measured with a seven-point scale ranging from *"Strongly Disagree"* (1) to *"Strongly Agree"* (7). Cronbach's α in this study was .85 (.85 for male TAWs and .86 for female TAWs).

Workload. We used the Job Content Questionnaire (Karasek *et al.*, 1998), already used in a previous study in Portugal (Castanheira and Chambel, 2010). The scale comprised seven items on a five-point scale ranging from *"Strongly Disagree"* (1) to *"Strongly Agree"* (5). A workload item present on this scale was, for instance, *"I have too much work to do"*. Cronbach's α in this study was .83 (.82 for male TAWs and .84 for female TAWs).

Job Exhaustion. We assessed job exhaustion using the Portuguese translation of the Maslach Burnout Inventory-General Survey (Maslach *et al.*, 1996) following an earlier Portuguese study (Castanheira and Chambel 2010). The scale of job exhaustion was composed of five items on a seven-point frequency scale ranging from *"Never"* (1) to *"Always"* (7). *"I feel emotionally drained by my work"* was a job exhaustion item present on the scale. Cronbach's α in this study was .90 (.88 for male TAWs and .91 for female TAWs).

Demographic characteristics such as gender (1= male TAWs, 2 = female TAWs).

Data analyses

Data analyses were performed using IBM Spss Statistics 22 for a) descriptive statistics (mean, standard deviation) and Alpha reliabilities (α – Cronbach's Alpha) for each scale; b) correlations between variables (Pearson's r); and c) a t-test for an independent sample to understand differences in variables perception. Moreover, to estimate a multi-group structural equation model and to test the mediating role of workload between PJI and job exhaustion, data analyses were performed using MPLUS7 (Muthen and Muthen, 1998-2012); hypotheses were specified a priori leading to the choice of a partial mediation model (James *et al.*, 2006). Goodness of fit for the model was evaluated using the chi-square value (χ^2), the Comparative Fit Index (CFI), the Tucker–Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean square Residual (SRMR). In general, models with fit indices of >.95 and an RMSEA of <.06 indicate a close fit between the model and the data, whereas fit indices of >.90 represent a reasonable fit (Hoyle, 1995). To construct latent variables a parceling method was used: the indicators of these latent variables are parceled (aggregate-level indicators comprising an average of two or more items) for each latent variable. Using parcels as indicators of a construct is better than using more items for two reasons: firstly, it reduces type I errors in the item correlations; secondly, it lessens the likelihood of a priori model misspecification (Yang *et al.*, 2010; Little *et al.*, 2002). All parcels present significant loadings (p <.00) in structural equation models.

To address the common method variance issue, we performed the Harman's single-factor test (Podsakoff *et al.*, 2003) using confirmatory factor analysis (CFA). Results indicated that one single factor could not account for the variance in the data [$\chi2$ (14) = 560.82, p < 0.01, RMSEA = 0.29, CFI = 0.58, TLI = 0.37, SRMR = 0.14] and therefore the threat of common method bias is unlikely.

Results

The *t-test* results showed differences between male and female TAWs: job exhaustion was higher in men (M = 19.04, DS = 8.40) than in women (M = 17.28, DS = 8.32) [t (472) = -2.26, p < .05] and workload was higher in men (M = 22.38, DS 5.40) than in women (M = 21.29, DS = 5.55) [t(472) = -2.14, p < .05]. The *t-test* did not show significant differences between male and female in PJI.

Correlations, means and standards deviations are reported in Table II (total correlations) and in Table III (correlations in the men and women group). Correlations showed that job exhaustion presented a high positive relationship with workload (r = .46) and PJI (r = .32). In the men group job exhaustion presented a high positive relation with PJI (r = .45) and workload (r = .38); also in the women group job exhaustion presented a high positive relation with workload (r = .50) and PJI (r = .22).

INSERT TABLE II

INSERT TABLE III

The estimated model for job exhaustion (Figure 1) presented good fit indices: $\chi^2(11) = 26.59$, $p < 0.01$, CFI = 0.99, TLI = 0.98, RMSEA = 0.06, SRMR = 0.04. Hence, this allowed us to confirm the goodness of the model fit. Besides, the CFI and the TLI indices, considered less dependent on sample size, each exceeded 0.95, indicating a good fit between the model and the data set (Hoyle, 1995). The explained variance of workload was 13%; the explained variance of job exhaustion was 29%. The estimated indirect effect is shown in Table IV. More specifically, workload has a positive impact on job exhaustion, thus increasing it. PJI has a direct positive impact on job exhaustion, thus increasing it. For the indirect effects (Table IV), PJI increases job exhaustion through workload. By examining the estimated model, the variables show good parceled-item loadings.

INSERT FIGURE 1

INSERT TABLE IV

The estimated multi-group model for job exhaustion (Figure 2) presented good fit indices: $\chi^2(30) = 54.49$, $p < 0.01$, CFI = 0.98, TLI = 0.97, RMSEA = 0.05, SRMR = 0.05. This allowed us to confirm the goodness of the model fit. Moreover, the CFI and the TLI indices, considered less dependent on sample size, each exceeded 0.95, indicating a good fit between the model and the data set (Hoyle, 1995). In the female group, the explained variance of workload was 9%; the explained variance of job exhaustion was 33%; in the male group, the explained variance of workload was 21%; the explained variance of job exhaustion was 26%. The estimated indirect effects are shown in Table V. More specifically, workload has a positive impact on job exhaustion in both groups, thus increasing it. PJI has a direct positive impact on job exhaustion only in the men group, thus increasing it; the direct impact of PJI in the women group is not significant. By examining the estimated model, the variables show good parceled-item loadings.

For the indirect effects (Table V) in both groups, PJI increases job exhaustion through workload. The mediation of workload in the relationship between PJI and job exhaustion was found partial in men and total in women.

INSERT FIGURE 2

INSERT TABLE V

Discussion

The aim of this study was to inquire about the effects of PJI (as a demanding condition) on job exhaustion, considering the mediation role of workload and exploring potential differences between male and female TAWs.

Our first hypothesis was that PJI was positively related to job exhaustion among TAWs (*H1*). Correlations and the estimated model for job exhaustion showed that PJI has a direct positive impact on job exhaustion, thus increasing it. The first hypothesis (H1) was therefore supported: PJI resulted as being positively associated with job exhaustion, in accordance with previous studies (Bosman *et al.*, 2005; De Cuyper *et al.*, 2010; Kausto *et al.*, 2005; Piccoli and De Witte, 2015; Vander Elst *et al*., 2012).

According to literature, job insecurity perceptions may lead to greater work efforts and higher workload perceptions (Richter, 2011). In this study, we further supposed that for TAWs the positive relationship between PJI and job exhaustion was mediated by workload (*H2*). Results supported this second hypothesis as well: a structural equation model showed workload to mediate the relationship between PJI and job exhaustion, indicating that TAWs react to job insecurity, by reporting not only a higher workload but also job exhaustion in connection with it. This may occur because they hope to be contracted permanently by the organisations they work for (Chambel *et al.*, 2015) and this effort brings, in turn, negative consequences on their well-being (Kompier *et al.*, 2009).

Based on gender role theory, the third hypothesis explored gender differences. Hypothesis 3a was that PJI was higher for men than for women TAWs: *t*-test did not show differences between male and female TAWs in PJI. Even though job exhaustion and workload were higher in the men group, hypothesis *3a* was not confirmed. Hypothesis *3b* was that the positive relationship between PJI and job exhaustion, mediated by workload, was greater for men than for women TAWs. A multi-group structural equation model partially confirmed this hypothesis: in the male group we found that the mediation of workload was partial; in the female group, the mediation was total, thus the direct effect of PJI on job exhaustion did not occur.

This study investigated job insecurity perceptions and their relationship with job exhaustion in TAWs, and it thus contributed to the literature in various ways.

Firstly, even if an employment contract is a given and brings with it an objective situation that implies feelings of security/insecurity (De Witte and Näswall, 2003; Sverke and Hellgren, 2002), due to the subjective nature of this emotional perception, such an objective precarious employment arrangement may be interpreted in various ways. In fact, some workers may not experience feelings of job insecurity, even though they might be dismissed in the near future (Aletraris, 2010). Indeed, our results are in line with this conception: TAWs job insecurity perception is related to job exhaustion; however, this direct relationship did not occur in women, whose work ill-being and job insecurity perceptions both depend on their workload perception. Probably, this is because women react more strongly to a specific stressor, namely workload, rather than to another, such as PJI, depending on how important their work role is to their identity. According to traditional gender role separation (Barnett *et al.*, 1995; Simon, 1992), women primarily identify themselves as mothers and spouses, and to cover these roles they are probably more likely to choose a job in which they can manage multiple roles rather than a job in which they feel secure (Richter *et al.*, 2010).

On the contrary, men and PJI seem to be more strongly associated, as they report a higher workload and job exhaustion in connection with it. This might happen because in traditionalist countries, such as Portugal, men's deep-rooted tendency to attach greater importance to their work

causes them to be more vulnerable than women to job insecurity-related outcomes (Gaunt and Benjamin, 2007).

Secondly, as most of the studies focusing on the association between job insecurity and health have been conducted in wealthy countries, and there is a lack of research in countries with different types of welfare states (László *et al.*, 2010), the results of the present study add another aspect to existing job insecurity research.

Effectively, Portugal, as well as the other Mediterranean European countries (i.e. Spain, Italy and Greece), has a stringent dismissal regulation for permanent employees that acts as a buffer and may further increase the risk of negative well-being outcomes due to job insecurity in TAWs, especially as they are used to mitigating business fluctuations (OECD, 2014). For this reason, future studies should investigate further these relationships, gathering data from different samples to compare various countries with diverse gender values and welfare states.

Limitations and future studies

We need to acknowledge some limitations relative to our study. Firstly, the present study used a cross-sectional research design that did not permit the establishment of definitive causality relations between variables. Further studies should examine the longitudinal effects of PJI on negative outcomes, such as burnout and ill-being, thus substantiating our assumption even more.

Secondly, the exclusive use of self-reported questionnaires can potentially contaminate results because observed relationships may be artificially inflated as a result of the respondents' tendency to answer in a consistent manner. Nevertheless, self-reported data seemed to be the most appropriate approach in our study as it evaluated workers' *subjective perceptions* of job insecurity, workload and exhaustion.

Finally, our sample of two TAW groups was extracted from a larger sample of TAWs through a judgment sampling method that took into account different variables. Our sample cannot therefore be considered representative of the general TAW population. Future studies should seek to enhance the external variability of this research by replicating our study with random sampling of TAWs who are working under various contract conditions.

Conclusions

The results of the current study contribute to the existing literature on job insecurity of TAWs by relating job insecurity to job exhaustion, both directly and indirectly, and by exploring gender differences in these relationships. Characteristically, if TAWs are men then they – reportedly – subjectively feel job insecure and perceive higher workload and job exhaustion in relation to PJI and this happens beyond their objective insecurity situation ensuing from the temporary nature of their contract.

These results can be used for employers and governments to consider PJI as a demanding condition and potential stressor also for TAWs. Results may be useful for career practitioners and researchers to plan life-designing intervention that could help individuals to articulate and enact a career story that supports adaptive and flexible responses to developmental tasks and occupational transitions (Savickas *et al.*, 2009; Savickas, 2012). For example, counselling and coaching interventions, with specific attention to gender differences in specific countries, would allow people not only to enhance their ability to define a project of personal development, but also to redefine it without suffering or loss of identity in order to always maintain their employability.

These results also suggest considering the cultural aspect related PJI and gender differences: in some cultures, characterised by traditional value such as Portugal, men's deep-rooted tendency to attribute greater importance to their work causes them to be more vulnerable than women to job insecurity-related outcomes (Gaunt and Benjamin, 2007). Furthermore, it is important for practitioners to design and manage interventions in an attempt to decrease TAWs work stress

according to gender differences. Moreover, they reveal how fundamental it is to enhance feelings of mastery in order to decrease perceived workload while improving employee well-being, especially in more-uncertain times.

In conclusion, our results show that gender is not to be underestimated as a factor in PJI and its effects on the working world. Consequently, examining more closely the study of gender differences in job insecurity perceptions in countries characterised by different gender models is of the utmost importance.

References

Aboim, S. (2010), "Género, família e mudança em Portugal", in Wall, K., Aboim, S. and Cunha, V. (Eds.), *A Vida Familiar no Masculino: Negociando Velhas e Novas Masculinidades*, Comissão para a Igualdade no Trabalho e no Emprego, Lisboa, pp. 39-66.

Aletraris, L. (2010), "How satisfied are they and why? A study of job satisfaction, job rewards, gender and temporary agency workers in Australia", *Human Relations*, Vol. 63 No. 8, pp. 1129-1155.

Ameen, E. C., Jackson, C. and Strawser, J. R. (1995), "An empirical investigation of the antecedents and consequences of job insecurity on the turnover intentions of academic accountants", *Issues in Accounting Education*, Vol. 10 No. 1, pp. 65-82.

Bakker, A.B. and Demerouti, E. (2007), "The Job Demands-Resources model: State of the art", *Journal of Managerial Psychology*, Vol. 22 No. 3, pp. 309-328.

Barnett, R.C., Raudenbush, S.W., Brennan, R.T., Pleck, J.H., and Marshall, N.L. (1995), "Changes in job and marital experience and change in psychological distress: A longitudinal study of dual-earner couples", *Journal of Personality and Social Psychology*, Vol. 69 No. 5, pp. 839-850.

Bergman, P. and Wigblad, R. (1999), "Workers Last Performance: Why Some Factories Show their Best Results during Countdown", *Journal of Economic and Industrial Democracy*, Vol. 20 No. 3, pp. 343-368.

Bernhard-Oettel, C., Sverke, M. and De Witte, H. (2005), "Comparing alternative employment to permanent full time work: How do employment contract and perceived job conditions relate to health complaints?", *Work & Stress*, Vol. 19 No. 4, pp. 301-318.

Bertolini, S. (2013), *Flessibilmente giovani. Percorsi lavorativi e transizione alla vita adulta nel nuovo mercato del lavoro*, Il Mulino, Bologna.

Booth, A. L., Francesconi, M. and Frank, J. (2002), "Temporary jobs: Stepping stones or dead ends?", *The Economic Journal*, Vol. 112 No. 480, pp. F189-F213.

Bosman, J., Rothmann, S. and Buitendach, J. H. (2005), "Job insecurity, burnout and work engagement: The impact of positive and negative affectivity", *SA Journal of Industrial Psychology*, Vol. 31 No. 4, pp. 48-56.

Campos-Serna, J., Ronda-Pérez, E., Artazcoz, L., Moen, B.E. and Benavides, F.G. (2013), "Gender inequalities in occupational health related to the unequal distribution of working and employment conditions: a systematic review", *International Journal for Equity in Health*, Vol. 12 No. 57, pp. 1-18.

Castanheira, F. and Chambel, M.J. (2010), "Reducing burnout in call centers through HR practices", *Human Resource Management*, Vol. 49 No. 6, pp. 1047-1065.

Chambel, M.J. and Fontinha, R. (2009), "Contingencies of Contingent Employment: Psychological Contract, Job Insecurity and Employability of Contracted Workers", *Revista de Psicología del Trabajo y de las Organizaciones*, Vol. 25 No. 3, pp. 207-217.

Chambel, M.J., Sobral, F., Espada, M. and Curral, L. (2015), "Training, exhaustion, and commitment of temporary agency workers: A test of employability perceptions", *European Journal of Work and Organizational Psychology*, Vol. 24 No. 1, pp. 15-30.

Cheng, G.H-L. and Chan, D.K-S. (2008), "Who suffers more from job insecurity? A meta-analytic review", *Applied Psychology: An International Review*, Vol. 57 No. 2, pp. 272-303.

CIETT (2014), *Economic report based on 2012 data*, International Confederation of Private Employment Agencies, Brussels.

Coyle-Shapiro, J.A.M., Morrow, P.C. and Kessler, I. (2006), "Serving two organizations: exploring the employment relationship of contracted employees", *Human Resource Management*, Vol. 45 No. 4, pp. 561-583.

Cropanzano, R., Rupp, D.E. and Byrne, Z.S. (2003), "The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors", *Journal of Applied Psychology*, Vol. 88 No. 1, pp. 160-169.

De Cuyper, N. and De Witte, H. (2007), "Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behavior", *Work and Stress*, Vol. 21 No. 1, pp. 65-84.

De Cuyper, N., De Witte, H., Vander Elst, T. and Handaja, Y. (2010), "Objective threat of unemployment and situational uncertainty during a restructuring: Associations with perceived job insecurity and strain", *Journal of Business and Psychology*, Vol. 25 No. 1, pp. 75-85.

De Cuyper, N., Notelaers, G. and De Witte, H. (2009), "Job insecurity and employability in fixed-term contractors, agency workers, and permanent workers: Associations with job satisfaction and affective organizational commitment", *Journal of Occupational Health Psychology*, Vol. 14 No. 2, pp. 193-205.

De Witte, H. (1999), "Job insecurity and psychological well-being: Review of literature and exploration of some unresolved issues", *European Journal of Work and Organizational Psychology*, Vol. 8 No. 2, pp. 155-177.

De Witte, H. (2000), "Arbeidsethos en jobonzekerheid: meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [Work ethic and job insecurity: Measurement and consequences for well-being, satisfaction and performance]", in Bouwen, R., De Witte, K., De Witte, H. and Taillieu, T. (Eds.), *Van groep naar gemeenschap*, Liber Amicorum Prof. Dr. Leo Lagrou, Garant, Leuven, pp. 352-350.

De Witte, H. and Näswall, K. (2003), "'Objective' vs. 'Subjective' job insecurity: Consequences of temporary work for job satisfaction and organizational commitment in four European countries", *Economic and Industrial Democracy*, Vol. 24 No. 2, pp. 209-312.

Demerouti, E., Bakker, A.B., Nachreiner, F. and Schaufeli, W.B. (2001), "The job demands-resources model of burnout", *Journal of Applied Psychology*, Vol. 86 No. 3, pp. 499-512.

Fischer, F.M., Oliveira, D.C., Nagai, R., Teixeira, L.R., Júnior, M.L., Latorre M. and Cooper, S.P. (2005), "Job control, job demands, social support at work and health among adolescent workers", *Revista de Saúde Pública*, Vol. 39 No. 2, pp. 245-253.

Forde, C (2001), "Temporary Arrangements: The Activities of Employment Agencies in the UK", *Work, Employment and Society*, Vol. 15 No. 3, pp. 631-644.

Gallagher, D.G. and McLean Parks, J. (2001), "I pledge thee my troth *f* contingently: commitment and the contingent work relationship", *Human Resource Management Review*, Vol. 11 No. 3, pp. 181-208.

Gaunt, R. and Benjamin, O. (2007), "Job Insecurity, Stress and Gender, The moderation role of gender ideology", *Community, Work and Family*, Vol. 10 No. 3, pp. 341-355.

Giunchi, M., Chambel, M.J. and Ghislieri, C. (2015), "Contract moderation effects on temporary agency workers' affective organizational commitment and perceptions of support, *Personnel Review*, Vol. 44 No. 1, pp. 22-38.

Guest, D., Mackenzie Davey, K. and Patch, A. (2003), *The psychological contracts, attitudes and behaviour of workers on temporary and permanent contracts* (Management Centre Working Paper), King's College, London.

Hoyle, R.H. (1995), *Structural equation modeling: Concepts, issues, and applications*, Sage Publications, Thousand Oaks, CA.

Isaksson, K., Hellgren, J. and Pettersson, P. (2000), "Repeated downsizing: Attitudes and well-being for surviving per- sonnel in a Swedish retail company", in Isaksson, K., Hogstedt, C., Eriksson, C. and Theorell, T. (Eds.), *Health effects of the new labour market*, Kluwer Academic/Plenum, New York, NY, pp. 85-101.

James, L.R., Mulaik, S.A. and Brett, J.M. (2006), "A tale of two methods", *Organizational Research Methods*, Vol. 9 No. 2, pp. 233-244.

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P. and Amick, B. (1998), "The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics", *Journal of Occupational Health Psychology*, Vol. 3 No. 4, pp. 322-355.

Kausto, J., Elo, A.-L., Lipponen, J.E. and Elovainio, M. (2005), "Moderating effects of job insecurity in the relationships between procedural justice and employee well-being: Gender differences", *European Journal of Work and Organizational Psychology*, Vol. 14 No. 4, pp. 431-452.

Keim, A.C., Landis, R.S., Pierce, C.A. and Earnest, D.R. (2014), "Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity", *Journal of Occupational Health Psychology*, Vol. 19 No. 3, pp. 269-290.

Kinnunen, U., Feldt, T., Mauno, S. and Rantanen, J. (2010), "Interface between work and family: A longitudinal individual and crossover perspective", *Journal of Occupational and Organizational Psychology*, Vol. 83 No. 1, pp. 119-137.

Kinnunen, U., Mauno, S., Nätti, J. and Happonen, M. (2000), "Organizational antecedents and outcomes of job insecurity: A longitudinal study in three organizations in Finland", *Journal of Organizational Behavior*, Vol. 21 No. 4, pp. 443-459.

Klein Hesselink, D.J. and van Vuuren, T. (1999), "Job flexibility and job insecurity: The Dutch case", *European Journal of Work and Organizational Psychology*, Vol. 8 No. 2, pp. 273-293.

Kompier, M., Ybema, J.F., Janssen, J. and Taris, T. (2009), "Employment Contracts: Cross-sectional and Longitudinal Relations with Quality of Working Life, Health and Well-being", *Journal of Occupational Health*, Vol. 51 No. 3, pp. 193-203.

Kraimer, M.L., Wayne, S.J., Liden, R.C. and Sparrowe, R.T. (2005), "The role of job security in understanding the relationship between employees' perceptions of temporary workers and employees' performance", *Journal of Applied Psychology*, Vol. 90 No. 2, pp. 389-398.

Kuhnert, K.W. and Palmer, D.R. (1991), "Job security, health and the intrinsic and extrinsic characteristics of work", *Group and Organization Studies*, Vol. 16 No. 2, pp. 178-192.

László, K.D., Pikhart, H., Kopp, M.S., Bobak, M., Pajak, A., Malyutina, S., Salavecz, G. and Marmot, M. (2010), "Job insecurity and health: A study of 16 European countries", *Social Science & Medicine*, Vol. 70 No. 6, pp. 867-874.

Lazarus, R.S. and Folkman, S. (1984), *Stress, appraisal, and coping*, New York, Springer.

Lee, R.T. and Ashforth, B.E. (1996), "A meta-analytic examination of the correlates of the three dimensions of job burnout", *Journal of Applied Psychology*, Vol. 81 No. 2, pp. 123-133.

Lewis, S. and Cooper, C. (1999), "The work-family research agenda in changing contexts", *Journal of Occupational Health Psychology*, Vol. 4 No. 4, pp. 382-393.

Little, T.D., Cunningham, W.A., Shahar, G. and Widman, K.F. (2002), "To parcel or not to parcel: Exploring the question, weighing the merits", *Structural Equation Modeling*, Vol. 9 No. 2, pp. 151-173.

Mäkikangas, A. and Kinnunen, U. (2003), "Psychosocial work stressors and well-being: Self-esteem and optimism as moderators in a one-year longitudinal sample", *Personality and Individual Differences*, Vol. 35 No. 3, pp. 537-557.

Maslach, C., Jackson, S.E. and Leiter, M.P. (1996), *Maslach burnout inventory manual*, Consulting Psychologists Press, Palo Alto, CA.

Maslach, C., Schaufeli, W.B. and Leiter, M.P. (2001), "Job burnout", *Annual Review of Psychology*, Vol. 52, pp. 397-422.

McFarlane Shore, L. and Tetrick, L. (1991), "A construct validity study of the survey of perceived organizational support", *Journal of Applied Psychology*, Vol. 76 No. 2, pp. 637-643.

Muthén, L.K. and Muthén, B.O. (1998-2012), *Mplus user's guide* (Version 7), Muthén & Muthén, Los Angeles.

Näswall, K., Sverke, M. and Hellgren, J. (2005), "The moderating effects of work-based and family-based support on the relation between job insecurity and subsequent strain", *South African Journal of Industrial Psychology*, Vol. 31 No. 4, pp. 57-64.

OECD (2014), "From protection to security: Exploring disparities in job security across contracts", in *OECD Employment Outlook*, OECD Publishing, pp. 172-184.

Okurame, D.E. (2014), "Moderator Effects of Gender in the Job Insecurity-Career Engagement Relationship: A Nigerian Study", *International Journal of Business and Management*, Vol. 9 No. 6, pp. 141-150.

Parker, S.K., Griffin, M.A., Sprigg C. and Wall, T.D. (2002), "Effect of temporary contracts on perceived work characteristics and job strain: A longitudinal study", *Personnel Psychology*, Vol. 55 No. 3, pp. 689-719.

Pearce, J.L., Branzyicki, I. and Bakasci, G. (1994), "Person-based reward systems: A theory of organizational reward practices in reform-communist organizations", *Journal of Organizational Behavior*, Vol. 15 No. 3, pp. 261-282.

Pereira, M.M. (2010), "Os Discursos de Género: Mudança e Continuidade nas Narrativas sobre Diferenças, Semelhanças e (Des)Igualdade entre Mulheres e Homens", in Wall, K., Aboim, S. and Cunha, V. (Eds.), *A Vida Familiar no Masculino: Negociando Velhas e Novas Masculinidades*, Comissão para a Igualdade no Trabalho e no Emprego, Lisboa, pp. 225-261.

Piccoli, B. and De Witte, H. (2015), "Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity", *Work & Stress*, Vol. 29 No. 3, pp. 246-263.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.L. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical view of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Richter, A. (2011), *Job Insecurity and Its Consequences: Investigating Moderators, Mediators and Gender*, Stockholm University, Sweden.

Richter, A., Näswall, K. and Sverke, M. (2010), "Job insecurity and its relation to work-family conflict: Mediation with a longitudinal data set", *Economic and Industrial Democracy*, Vol. 31 No. 2, pp. 265-280.

Rosenblatt, Z. and Ruvio, A. (1996), "A test of a multidimensional model of job insecurity: The case of Israeli teachers", *Journal of Organizational Behavior*, Vol. 17 No. S1, pp. 587-605.

Rosenblatt, Z., Talmud, I. and Ruvio, A. (1999), "The gender-based framework of the experience of job insecurity and its effect on work attitudes", *European Journal of Work and Organizational Psychology*, Vol. 8 No. 2, pp. 197-217.

Savickas, M.L. (2012), "Life Design: A Paradigm for Career Intervention in the 21st Century", *Journal of Counseling & Development*, Vol. 90 No. 1, pp. 13-19.

Savickas, M.L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., van Vianen, A.E.M. (2009), "Life designing: A paradigm for career construction in the 21st century", *Journal of Vocational Behavior*, Vol. 75 No. 3, pp. 239-250.

Schaufeli, W.B. and Taris, T.W. (2005), "The conceptualization and measurement of burnout: Common ground and worlds apart", *Work and Stress*, Vol. 19 No. 3, pp. 262-356.

Schaufeli, W.B. and Taris, T.W. (2014), A critical review of the job demands-resources model: Implications for improving work and health, in Bauer, G. and Hämmig, O. (Eds.), *Bridging occupational, organizational and public health*, Springer, Dordrecht, The Netherlands, pp. 43-68.

Simon, R. (1992), "Parental role strains, silence of parental identity and gender differences in psychological distress", *Journal of Health and Social Behavior*, Vol. 33 No. 1, pp. 25-35.

Sverke, M. and Hellgren, J. (2002), “The Nature of Job Insecurity: Understanding Employment Uncertainty on the Brink of a New Millennium”, *Applied Psychology: An International Review*, Vol. 51 No. 1, pp. 23-42.

Sverke, M., Hellgren, J. and Näswall, K. (2002), “No security: A meta-analysis and review of job insecurity and its consequences”, *Journal of Occupational Health Psychology*, Vol. 7 No. 3, pp. 242-264.

van Vuuren, T., Klandermans, B., Jacobson D. and Hartley, J. (1991), “Predicting employee's perceptions of job insecurity”, in Hartley, J., Jacobson, D., Klandermans, B. and Van Vuuren, T. (Eds.), *Job insecurity: Coping with jobs at risk*, SAGE, London, pp. 65-78.

Vander Elst, T., Van den Broeck, A., De Witte, H. and De Cuyper, N. (2012), “The mediating role of frustration of psychological needs in the relationship between job insecurity and work-related well-being”, *Work & Stress*, Vol. 26 No. 3, pp. 252-271.

Vander Steene, T., De Witte, H., Forrier, A., Sels, L. and van Hootegem, G. (2001), *Cahier 7: Op Zoek naar Effecten van Contractuele Flexibiliteit bij Werknemers. Een Onderzoek in Opdracht van Vlaams Minister Bevoegd voor Wetenschap en Technologie, in het kader van het VIONA-onderzoeksprogramma*. KULeuven- Steunpunt Werkgelegenheid, Arbeid en Vorming, Leuven.

Wilson, S. M., Larson, J. H. and Stone, K. L. (1993), “Stress among job insecure workers and their spouses”, *Family Relations*, Vol. 42 No. 1, pp. 74-80.

Xanthopoulou, D., Bakker, A.B., Dollard, M.F., Demerouti, E., Schaufeli, W.B., Taris, T.W. and Schreurs, P.J.G. (2007), “When do job demands particularly predict burnout? The moderating role of job resources”, *Journal of Managerial Psychology*, Vol. 22 No. 8, pp. 766-786.

Yang, C., Nay, S. and Hoyle, R. (2010), “Three approaches to using lengthy ordinal scales in structural equation models: Parceling, latent scoring, and shortening scales”, *Applied Psychological Measurement*, Vol. 34 No. 2, pp. 122-142.

Tables and Figures

Table I
Demographic characteristics of male and female TAWs

	Male TAWs *n = 209*	*Female TAWs* *n = 265*
Age	*M* = 31.23 (*SD* = 8.54) *min* = 18; *max* = 54	*M* = 29.95 (*SD* = 7.74) *min* = 18; *max* = 58
Agency contract	Permanent 48.3% Temporary 51.7%	Permanent 45.0% Temporary 55.0%
Employment	Full time 83.0% Part time 17.0%	Full time 77.3% Part time 22.7%
Employment sector	Call center 27.4% Trade market 23.1% Extractive industry 22.6% Manufacturing center 7.2% Construction 11.5% Transport 4.3% Finance & Insurance sector 1.0% Hospitality 1.0% Other sectors 1.9%	Call center 30.5% Trade market 30.9% Extractive industry 24.0% Manufacturing center 6.1% Construction 0.4% Transport 0.8% Finance & Insurance sector 4.2% Hospitality 2.7% Other sectors 0.4%

Table II

Means, standard deviations, Cronbach's alpha and correlations

	Alpha	*Mean*	*SD*	1.	2.	3.
1. Perceived Job Insecurity	.85	2.89	.78	1		
2. Workload	.83	3.11	.79	.29**	1	
3. Job exhaustion	.90	3.70	1.68	.32**	.46**	1

Notes: n = 474. ** $p < 0.01$

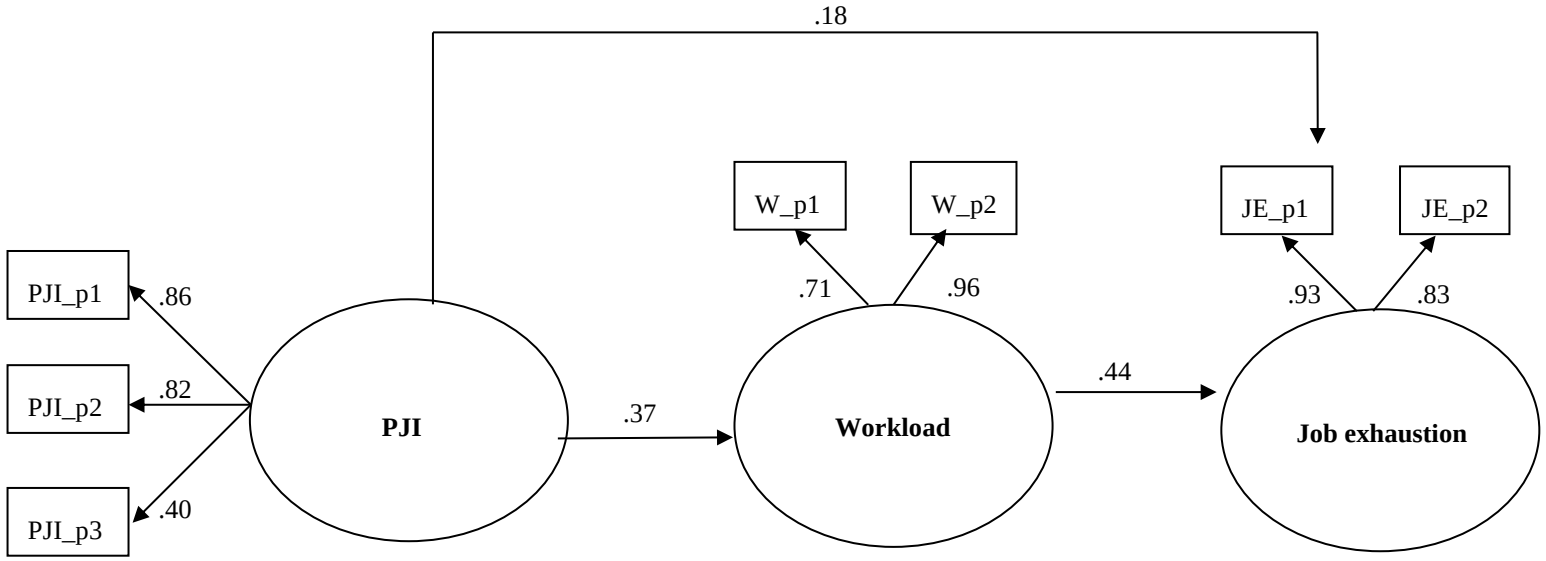
Table III

Means, standard deviations, Cronbach's alpha and correlations – men TAWs (above the diagonal) and women TAWs (below the diagonal)

	1.	2.	3.
1. Perceived Job Insecurity	1	.41**	.45**
2. Workload	.20**	1	.38**
3. Job exhaustion	.22**	.50**	1

Notes: *n* = 209 (men), *n* = 268 (women). ** $p < 0.01$

Figure 1
Structural equation model, workload mediation between PJI and job exhaustion



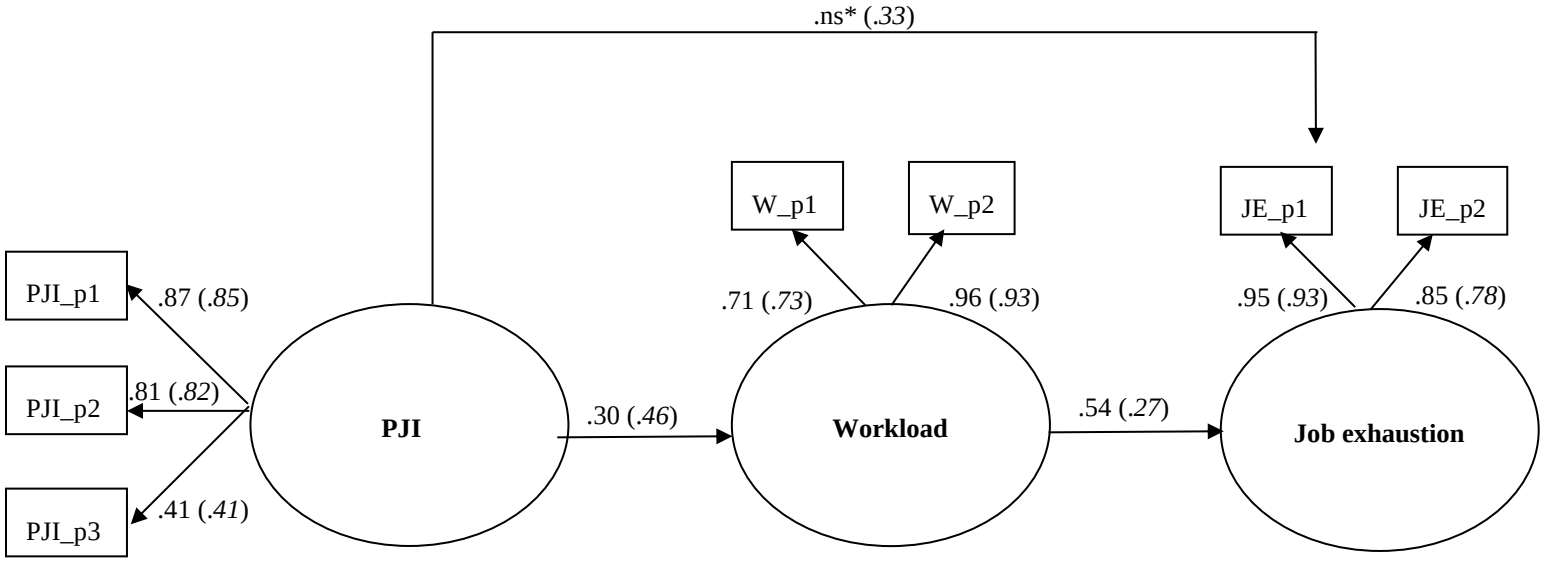
Notes: *n* = 474. PJI_p1, PJI_p2, PJI_p3 parcel 1,2 ,3 of the latent variable PJI; W_p1, W_p2 parcel 1, 2 of the latent variable Workload; JE_p1, JE_p2 parcel 1, 2 of the latent variable Job exhaustion.

Table IV
Indirect effects

	Standardized indirect effects		
Indirect effects	*Estimate*	*SE*	*p*
PJI → Workload → Job exhaustion	16	.03	.00

Figure 2

Multi-group structural equation model, workload mediation between PJI and job exhaustion



Notes: *n* = 209 (men), *n* = 268 (women). *not significant. Women group data out of parentheses, men group data in parentheses. PJI_p1, PJI_p2, PJI_p3 parcel 1,2 ,3 of the latent variable PJI; W_p1, W_p2 parcel 1, 2 of the latent variable Workload; JE_p1, JE_p2 parcel 1, 2 of the latent variable Job exhaustion.

Table V
Indirect effects

		Standardized indirect effects		
	Indirect effects	*Estimate*	*SE*	*p*
Male TAWs group	PJI → Workload → Job exhaustion	.12	.04	.01
Female TAWs group	PJI → Workload → Job exhaustion	.16	.04	.00