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RESEARCH ARTICLE

Burnout and job insecurity: the mediating role of job crafting

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Abstract

Job insecurity has been associated with burnout. However, the mechanism by which they influence each other has remained largely unexplored. Using a sample of 150 employees in the IT industry, we tested the mediating role of job crafting, the proactive change of job characteristics by the employees, in the relationship between burnout and job insecurity. Using structural equation models, we showed that only increasing challenging job demands, one of the four components of job crafting, mediates the relationship between burnout and job insecurity. A longitudinal study is recommended to test causality.

Keywords

job insecurity, burnout, job crafting, mediation

Rezumat

Insecuritatea locului de muncă a fost asociată cu epuizarea. Cu toate acestea, mecanismul prin care acestea se influențează reciproc a rămas în mare parte neexplorat. Folosind un eșantion de 150 de angajați din industria IT, am testat rolul de mediator pe care îl are modelarea postului, schimbarea proactivă a caracteristicilor postului de către angajați, în relația dintre epuizare și nesiguranța locului de muncă. Folosind modele de ecuație structurală, a reieșit faptul că doar creșterea provocărilor, una dintre cele patru componente ale modelării postului, mediază relația dintre epuizare și nesiguranța locului de muncă. Se recomandă un studiu longitudinal pentru testarea cauzalității.

Cuvinte cheie

insecuritatea locului de muncă, epuizare, modelarea postului, mediere

Résumé

Précarité de l'emploi a été associée à l'épuisement. Cependant, le mécanisme par lequel ils influencent l'un l'autre est resté largement inexploré. À l'aide d'un échantillon de 150 travailleurs dans l'industrie des TI, nous avons testé le rôle de médiateur que le travail de modélisation et l'évolution des caractéristiques proactives d'emploi par les salariés ont dans la relation entre l'insécurité de l'emploi et l'épuisement. En utilisant des modèles d'équations structurelles, nous avons montré que seulement les défis croissantes, l'une des quatre composantes du modelisation de l'emploi, médiatisent la relation entre l'épuisement et l'insécurité de l'emploi. On recommande une étude longitudinale pour tester la causalité.

Mots-clés

l'insecurite d'emploi, épuisement, la modélisation du poste, médiation

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Introduction

Job insecurity (JI) is defined as the employee's perceived probability and fear of losing the current job (De Witte, 1999; Sverke et al., 2004). JI has been linked to various indicators of low well-being such as reduced job satisfaction, reduced work involvement and low organizational commitment (Cheng & Chan, 2008; Sverke, Hellgren, & Näswall, 2002) and increased burnout (Dekker & Schaufeli, 1995; Mauno & Kinnunen, 1999; De Cuyper et al., 2012), as well as to a variety of health issues (László, 2010; Lee et al., 2004; Muenster et al., 2011).

The possible antecedents of JI are classified into three groups: demographic factors (age, gender, marital status, and education), positional characteristics (nature of the employment relationship, job tenure, and access to information), and environmental and organizational characteristics (regional unemployment rate and organizational climate) (Kinnunen & Natti, 1999). The possible effects of job insecurity are strain and impaired well-being and health, the literature focusing especially on burnout (Ferrie, 2001; Dekker & Schaufeli, 1995; Hellgren & Sverke, 2003; De Witte, Pienaar, & De Cuyper, 2015).

Although many studies have been conducted on the antecedents and consequences of job insecurity, the mechanisms by which job insecurity and burnout influence each other remain largely unexplored. Based on the predictions of the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2014), positive and negative gain spirals are possible between JI and burnout, i.e. an influence from burnout to JI is as possible as an influence from JI to burnout. Furthermore, based on the predictions of the same model, it is possible that one of the mechanisms by which job insecurity and burnout are related is job crafting, the proactive change of job characteristics by the employees (Wrzesniewski & Dutton, 2001). In the present study, we will investigate the hypothesis that job crafting mediates the relationship between job insecurity and burnout, testing for both the direct and inverse relationships between JI and burnout.

The exploratory processes between burnout and JI were partially studied. For example, we know that perceived control accounts for the effect of JI on emotional exhaustion, but the inverse relationship is not supported by evidence (Vander Elst, Van den Broeck, De Cuyper, & De Witte, 2014). Psychological contract breach and distributive injustice, two indicators of lack of reciprocity, were confirmed as mediators between job insecurity and emotional exhaustion in a cross-sectional study (Piccoli & De Witte, 2015). However, the mechanism by which these two constructs influence each other has not been fully explored. Considering this, we propose job crafting as a mediator.

This study contributes to the literature related to job insecurity in general and to the JD-R model specifically in two important ways. First, it covers a gap related to how job insecurity influences employee fatigue and vice versa, exploring a possible mediator. Second, it robustly tests one of the newer assumptions of the JD-R model, according to which the relationship between job demands and exhaustion is partially mediated by job crafting. Tims and Bakker (2010) defined job crafting as the changes the employees make in order to balance their job resources and job demands with their personal resources and needs. Based on this definition, job crafting was added to the JD-R model as a mediator between resources and engagement and between demands and burnout. Therefore, we can expect that job crafting will mediate the relationship between job insecurity and burnout.

The Job Demands-Resources Model

JI can be studied under the heading of the JD-R model (Bakker & Demerouti, 2014). The JD-R model is an organizational theory that is able to predict work engagement, performance and burnout (Demerouti & Bakker, 2011). The JD-R model is based on the notion that even though each occupation is different, all occupations have a set of job demands and a set of job resources. Specifically, job demands

are aspects of the job that require sustained physical and/or psychological effort or skills, whereas job resources are aspects of the job that are functional in achieving work goals and stimulate personal growth, learning, and development (Bakker & Demerouti, 2007).

Job demands and job resources initiate two different processes. Job demands initiate a health impairment process, which means that a high level of job demands is associated with exhaustion, burnout and health problems. On the other hand, job resources initiate a motivational process. This means that a high level of job resources foster employee work engagement (Bakker, 2015). According to the model, if a variable describing a job characteristic is related to a greater extent with health impairment issues, as compared to aspects related to engagement, then it is a job demand. Otherwise, it is a job resource. JI is a job demand, being associated more robustly with strain-based (job exhaustion) than motivational-based (work engagement) outcomes (Kinnunen, Mauno, & Siltaloppi, 2010). As such, it is strongly linked in the JD-R model with burnout.

In addition, studies have shown repeatedly that there are reversed causal relationships between working conditions and strain (Zapf, Dormann, & Frese, 1996). For example, exhaustion leads to work pressure, but work pressure leads to exhaustion, too (Demerouti, Bakker, & Bulters, 2004). Job demands are related to burnout, and burnout is related to job demands over time (Demerouti, Le Blanc, Bakker, Schaufeli, & Hox, 2009). Therefore, a potential reverse causal relationship between job insecurity and burnout might be warranted.

Job insecurity and burnout

JI is associated with a number of negative consequences, such as reduced job satisfaction, organizational commitment, work involvement and organizational trust (Cheng & Chan, 2008; Sverke, Hellgren, & Näswall, 2002), lower well-being (De Witte, 1999), turnover intentions (Emberland & Rundmo, 2010), lower self-rated health (László, 2010), increased short-term risk of non-fatal myocardial infarction (Lee et al., 2004), overweight and obesity (Muenster et al., 2011). Also, based on longitudinal studies, we know that JI causes strain (Ferrie, 2001; Dekker & Schaufeli, 1995) and impaired well-being, including burnout (Hellgren & Sverke, 2003; De Witte, Pienaar, & De Cuyper, 2015).

Burnout is defined and measured as a work-related syndrome that is characterized by emotional exhaustion (a state of energy draining), cynicism (an indifferent or distant attitude towards work), and reduced professional efficacy (feelings of incompetence about social and non-social aspects of work) that individuals experience in relation to their work (Maslach, Schaufeli, & Leiter, 2001). In other words, burnout is a multidimensional construct composed of fatigue or exhaustion (a stress reaction), cynicism or depersonalization (a mental distancing response) and lack of accomplishment or efficacy (a negative belief) (Schaufeli & Salanova, 2014).

Meta-analyses (e.g., Alarcon, 2011; Crawford, LePine, & Rich, 2010; Swider & Zimmerman, 2010) show that the potential antecedents of burnout are, among others, high job demands, such as work overload, time pressure, number of work hours, number of clients, role problems, work-home interference, and emotional demands. Given that JI is a job demand, according to the JD-R model, it is expected to be associated positively and potentially in a causal manner with burnout, which was highlighted by longitudinal studies (De Witte, Pienaar, & De Cuyper, 2015). However, also in accordance with the JD-R model, an inverse relationship is also possible, even if the effect is one of less intensity, with job crafting as a mediator (Bakker & Demerouti, 2014). The effect of burnout on JI can occur because exhausted employees are less likely to have enough energy to accomplish their tasks, so they will become more insecure regarding their jobs or feeling inefficient in their work can make them anxious about being able to keeping their jobs. In addition, it is possible that their cynicism makes them trust less that their company will provide security.

Job crafting

A relatively new concept introduced in the JD-R model is job crafting. Job crafting has been

defined as a set of behaviors initiated by the employees in order to fit work activity with their own preferences, motivations or interests or as "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001, p. 179).

Starting from the job crafting descriptions from Wrzesniewski and Dutton (2001) and including it in the JD-R model, Tims, Bakker and Derks (2012a) developed a questionnaire to measure this construct. They identified four different dimensions of job crafting: increasing structural job resources, increasing social job resources, decreasing hindering job demands, and increasing challenging job demands. Increasing structural job resources refers to the resources of variety, opportunity for development, and autonomy. Increasing social job resources refers to social support, supervisory coaching, and feedback. Decreasing hindering job demands refers to initiatives of employees to decrease their level of job demands. For example, employees can organize their working activity to ensure that there is no need to focus continuously for an extended period of time. Increasing challenging job demands refers to behaviors of employees that would result in additional, challenging demands. For example, employees can get involved as volunteers when new interesting projects occur, without being asked for help.

Job crafting is associated with positive consequences. For example, employees who craft their job resources show an increase in their structural and social resources over time. This increase in job resources is positively related to increased engagement and job satisfaction and decreased burnout (Tims, Bakker, & Derks, 2013). Furthermore, employees who feel more self-efficacious or who are more proactive are more likely to mobilize their job resources. Job crafting, in turn, is positively correlated to work enjoyment, work engagement and indirectly associated with performance (Tims, Bakker, & Derks, 2012b; 2014).

However, not all consequences of job crafting are positive. For example, decreasing hindering job demands is positively related to colleagues' workload and conflict (Tims, Bakker, & Derks, 2015). In addition, daily seeking challenges is positively associated with daily counterproductive behaviors and daily reducing demands is detrimental for daily task performance (Demerouti, Bakker, & Halbesleben, 2015).

The JD-R model implies that the relationship between JI and burnout develops through job crafting (Bakker & Demerouti, 2014). In fact, the JD-R model posits that between these three classes of variables (job characteristics, outcomes and job crafting) there is a feedback loop. This means for instance that JI leads to burnout, which in turn leads to job crafting. Then, job crafting will influence JI by, for example, generating a more stable work environment. The feedback loop is closed in this way from JI to burnout, to job crafting and back to JI. An interesting discussion would arise when looking at the possible inverse relationship and at the role job crafting would play between JI and burnout. Additionally, one could look at the way employees who are insecure at work craft their environment such that they head faster towards burnout. This inverse relationship is however not the focus of the current research. Although all of these assumptions can only be tested longitudinally, a cross-sectional study can give us a clue about the possible existence of such direct and inverse relationships and about the existence of the proposed feedback loop.

The current study

As noted, the relationship between JI and burnout as prescribed by the JD-R model is not necessarily a simple one. JI, as a job demand, will almost certainly lead to burnout, and there is consistent longitudinal evidence for this route (De Witte, Pienaar, & De Cuyper, 2015). However, the reverse relationship is conceivable, and burnout can in turn also lead to JI. While this inverse relationship has been tested three time and was found only once (De Witte, Pienaar, & De Cuyper, 2015), it is conceivable under the principles of the JD-R model, which allows for reversed causal effects (Bakker, Schaufeli, Sixma, Bosveld, & Van Dierendonck, 2000; Demerouti, Bakker, & Bulters, 2004).

We posit that job crafting will mediate these relationships (Bakker & Demerouti, 2014). Since the JD-R model assumes reversed causal effects, we expect that job insecurity has both a direct effect and an indirect effect on burnout, through job crafting, but, at the same time, we expect that burnout might have a direct effect and an indirect effect on job insecurity, again through job crafting. These relationships are explained through the Conservation of Resources Theory further on.

Beyond the JD-R model, other important theories and models in occupational health psychology make a similar prediction, such as Conservation of Resources Theory (COR, Hobfoll, 2001). The proposed mechanism here is that people are motivated to protect their current resources and to acquire new resources. In terms of conservation of resources, job crafting can play an essential role. For example, if an employee is exhausted, in order to conserve the current resources, he or she will no longer try to learn new things at work, which is an essential aspect of increasing structural job resources (a component of job crafting). As a potential consequence, employees might become less productive and therefore more insecure about their job. This example assumes a model with burnout as the independent variable. Moreover, it might be the case that the opposite model in true based on COR. Job security can be seen as a resource and losing it can motivate employees to regain it. Employees might attempt to do that by regularly taking extra tasks even though they do not receive extra salary for that, which is a form of increasing challenging job demands (also a component of job crafting). This can lead eventually to burnout.

The same reasoning can also be applied for decreasing hindering job demands and increasing social job resources. If an employee is insecure about his job he may stop trying to ensure that his work is mentally and emotionally less intense in order to perform more tasks. For this reason his demands will increase and with them the level of burnout. In this example JI is the independent variable of the model. When an employee is exhausted, he may seek help from colleagues and supervisor in order to complete his tasks. Although the employee carries out his duties, he is likely to think that others have noticed that he alone cannot meet his tasks, which is why he might feel more insecure about his job. This example assumes a model with burnout as the independent variable.

Thus, direct and inverse relationships between JI and burnout, mediated by job crafting, are conceivable under both the JD-R model and the COR theory. We therefore are going to test both models, one in which JI is the independent variable and one in which burnout is the independent variable. It is important to note that these two models do not contradict each other, because both can be simultaneously valid. What we can capture is the direction that manifests a stronger effect. Given our aims, we conduct our study based on a formal hypothesis:

H1: Job crafting mediates both the direct and inverse relationship between job insecurity and burnout.

Method

Participants

The study involved 150 employees of a multinational company in the IT industry. There were 89 men in the sample (59.3%) and their ages ranged from 21 to 63 years (M = 31.54, SD = 7.34). 48 (32%) of employees had a tenure of less than one year in the company, 40 (26.7%) of employees had a tenure between 1 and 3 years, 28 (18.7%) of employees had a tenure between 3 and 5 years, 19 (12.7%) of employees had a tenure between 5 and 8 years, and 15 (10%) had an tenure of over 8 years in the company. Of these participants, 106 (70.7%) were employed in Romania, 8 (5.3%) were employed in Slovenia, 6 (4%) were employed in Poland, 5 (3.3%) were employed in Croatia, 5 (3.3%) were employed in Serbia, 3 (2%) were employed in the Czech Republic, 2 (1.3%) were employed in Bulgaria, and one employee (0.7%) worked in each of the following countries: Montenegro, Germany, Ireland, Portugal, Turkey, Netherlands, Denmark, Greece, Russia, Egypt, Hungary, Finland, Ukraine, and United Arab Emirates. An employee (0.7%) did not specify the country of employment. All of them had at least a bachelor's degree and were white-collar workers.

Procedure

The measurement instruments for job crafting, JI, and burnout were sent to employees via their email addresses in a multinational company in the IT industry. Romanian language versions of the scales were distributed in the Romanian headquarters of the company. English versions of the scales were distributed in the other countries where the company is based. Employees were asked to complete the questionnaires as honestly as possible. They were informed that the collected data will remain confidential. We used Mplus Version 6.12 to analyze the collected data on employees' age, their gender, their tenure in the organization, the country where they work and their scores on the three scales.

Measures

Job crafting. Job crafting was measured with the Job Crafting Scale (Tims, Bakker, & Derks, 2012a; Oprea & Stefan, 2015). The scale consists of four subscales: increasing structural job resources (ISJR) (5 items, e.g., "I try to develop my capabilities", *Cronbach's α* = .70), decreasing hindering job demands (DHJD) (6 items, e.g., "I make sure that my work is mentally less intense", *Cronbach's α* = .78), increasing social job resources (ISJR) (5 items, e.g., "I ask others for feedback on my job performance", *Cronbach's α* = .75) and increasing challenging job demands (ICJD) (5 items, e.g., "When there is not much to do at work, I see it as a chance to start new projects", *Cronbach's α* = .80*).* For all four scales, high scores refer to high levels of job crafting. All items were answered using a 5-point frequency scale (1 = never, 5 = often).

Burnout. Burnout was measured with the Oldenburg Burnout Inventory (OLBI, Demerouti, Bakker, Vardakou, & Kantas, 2003). The OLBI consists of 16 items, eight of which measure the exhaustion dimension of burnout (e.g., "During my work, I often feel emotionally drained") and eight measuring the disengagement dimension of burnout (e.g., "Sometimes I feel sickened by my work tasks"). Participants were asked to respond to the items by using a scale ranging from 1 (strongly agree) to 4 (strongly disagree). In all cases, responses were recoded so that high scores would refer to high levels of exhaustion and disengagement. Both subscales include four positively worded items and four negatively worded items. The reliability of the total scale was high (*Cronbach's α* = .82).

Job insecurity. JI was measured with three items from Job Demands-Resources Scale (Jackson & Rothmann, 2005). Job Demands-Resources Scale was developed based on a literature review and interviews with employees. Those three items (e.g., "Do you need to be more secure that you will keep your current job in the next year?") refer to JI and concerns about the future. The items were rated on a five-point scale ranging from 1 (it does not fit at all) to 5 (it fits perfectly). A high score indicates a high level of JI. The scale had good reliability (*Cronbach's α* = .93).

Results

Descriptive statistics and correlations

Table 1 presents means, standard deviations, internal consistencies, and correlations among the study variables. All constructs had a satisfactory internal consistency. Increasing structural job resources had a statistically significant positive correlation with increasing social job resources (r = .32, p < .01) and increasing challenging job demands (r = .46, p < .01) and a statistically significant negative correlation with burnout (r = -.21, p < .01). Decreasing hindering job demands correlated positively with burnout (r = .37, p < .01) and JI (r = .17, p < .05). Increasing social job resources was positively correlated with increasing challenging job demands (r = .42, p < .01) and negatively correlated with burnout (r = -.22, p < .01). Increasing challenging job demands had a statistically significant negative correlation with burnout (r = -.24, p < .01) and a statistically significant positive correlation with JI (r = .16, p < .05). There was a positive correlation between burnout and JI (r = .21, p < .01).

Table 1. Descriptive statistics, correlations, and reliabilities for study variables

Variables	Mean	SD	1	2	3	4	5	6
1. Increasing structural job resources	22.14	2.41	(.70)					
2. Decreasing hindering job demands	15.66	4.67	-.01	(.78)				
3. Increasing social job resources	17.88	3.65	.32**	.01	(.75)			
4. Increasing challenging job demands	18.74	3.53	.46**	.08	.42**	(.80)		
5. Burnout	36.33	7.77	-.21**	.37**	-.22**	-.24**	(.82)	
6. Job insecurity	8.30	3.45	-.05	.17*	-.09	.16*	.21**	(.93)

Note. Cronbach's alpha reliabilities are in parentheses on the diagonal, * $p < .05$, ** $p < .01$.

Path models

Given the fact that two components of job crafting, increasing structural job resources and increasing social job resources, were not correlated with both burnout and JI, we tested only two mediation models, one with each of the other two components of job crafting: one model with decreasing hindering job demands as a mediator between JI and burnout and one model with increasing challenging job demands as a mediator between JI and burnout.

Also, in order to verify the directions of the relationships between variables, we decided to test competing models, one in which JI has a direct and indirect effect on burnout and one in which burnout has a direct and indirect effect on JI. Given all this, we tested the fit to the data of four models.

Table 2. Goodness-of-fit indices of the models (N = 150)

	χ^2	df	χ^2/df	CFI	TLI	RMSEA	AIC	BIC
M1. JI → DHJD → B	31.30	3	10.43	1.00	1.00	.00	1909.75	1930.82
M2. B → DHJD → JI	31.30	3	10.43	1.00	1.00	.00	1666.76	1687.84
M3. JI → ICJD → B	24.84	3	8.28	1.00	1.00	.00	1832.89	1853.97
M4. B → ICJD → JI	24.84	3	8.28	1.00	1.00	.00	1589.90	1610.98

Note. JI = job insecurity; DHJB = decreasing hindering job demands; ICJD = increasing challenging job demands; B = burnout; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; AIC = Akaike Information Criteria; BIC = Bayesian Information Criteria.

In the first model (M1), JI had a direct and an indirect effect on burnout, with decreasing hindering job demands as mediator. In the second model (M2), burnout had a direct and an indirect effect on JI, with decreasing hindering job demands as mediator. In the third model (M3), JI had a direct and an indirect effect on burnout, with increasing challenging job demands as mediator. And finally, in the fourth model (M4), burnout had a direct and an indirect effect on JI, with increasing challenging job demands as mediator. We used the bootstrap method to test the mediation models, in accordance with recommendations from Pituch, Stapleton, and Kang (2006).

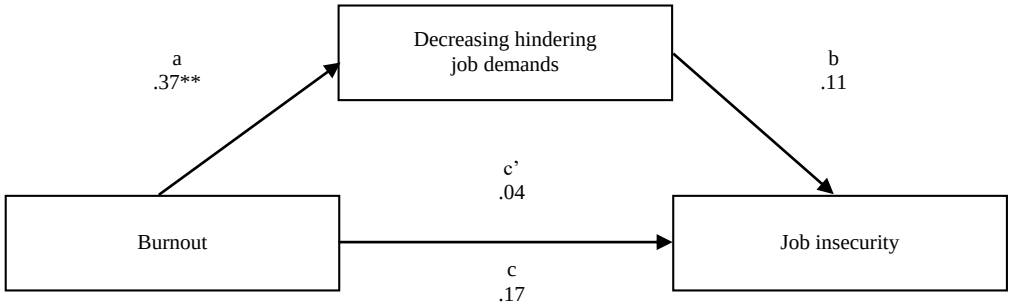

Figure 1. The relationship between burnout and job insecurity mediated by decreasing hindering job demands
Note: *p<0.05, **p<0.01.

The models tested by us are just-identified (saturated) models, i.e. in each model the number of free parameters equals the number of known values exactly. Simple mediation models are always just-identified models. In a saturated model the number of path coefficients which are estimated is equal to the number of independent correlations. Saturated models have zero degrees of freedom, and as a result have fit indices of 1 and RMSEA indices of 0.

Table 2 displays the fit indices of the models. M2 and M4 fit the data better than M1 and M3 (*AIC* = 1909.75 and *BIC* = 1930.82 for M1; *AIC* = 1666.76 and *BIC* = 1687.84 for M2; *AIC* = 1832.89 and *BIC* = 1853.97 for M3; *AIC* = 1589.90 and *BIC* = 1610.98 for M4). According to the results, the models with burnout as an independent variable and JI as a dependent variable fit the data better then the models with JI as a dependent variable and burnout as an independent variable.

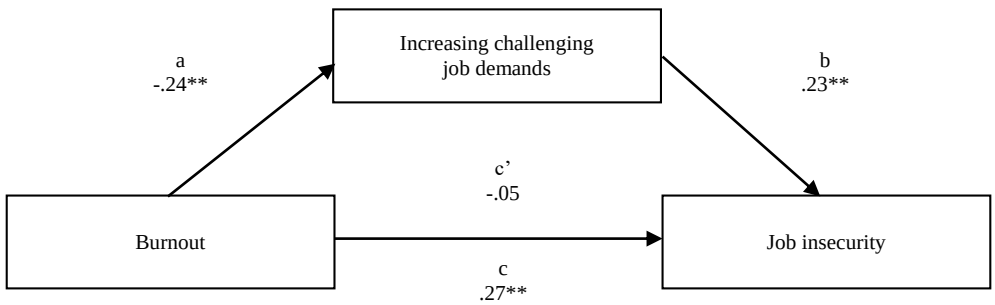

Figure 2. The relationship between burnout and job insecurity mediated by increasing challenging job demands
Note: *p<0.05, **p<0.01.

Subsequently, we tested two competing models in which we have included both mediators. Again, in the first model (M5) job insecurity was the independent variable and in the second model (M6) burnout was the independent variable. Table 3 displays the fit indices of these two models. M6 fit the data better than M5 (*AIC* = 2701.41 and *BIC* = 2737.53 for M5; *AIC* = 2458.42 and *BIC* = 2494.55 for M6).

Table 3. Goodness-of-fit indices of the models with two mediators (N = 150)

	χ^2	df	χ^2/df	CFI	TLI	RMSEA	AIC	BIC
M5. JI → DHJD & ICJD → B	53.53	6	10.43	1.00	1.00	.00	2701.41	2737.53
M6. B → DHJD & ICJD → JI	53.53	6	10.43	1.00	1.00	.00	2458.42	2494.55

Note. JI = job insecurity; DHJB = decreasing hindering job demands; ICJD = increasing challenging job demands; B = burnout; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; AIC = Akaike Information Criteria; BIC = Bayesian Information Criteria.

In M6, the correlation between burnout and decreasing hindering job demands was r = .22, p < .01, the correlation between burnout and increasing challenging job demands was r = -.11, p < .01, and the correlation between increasing challenging job demands and JI was r = .22, p < .01. The correlation between decreasing hindering job demand and job insecurity was not statistically significant. After controlling for both decreasing hindering job demands and increasing challenging job demands, the correlation between burnout and job insecurity was r = .11, p < .01 (Figure 3).

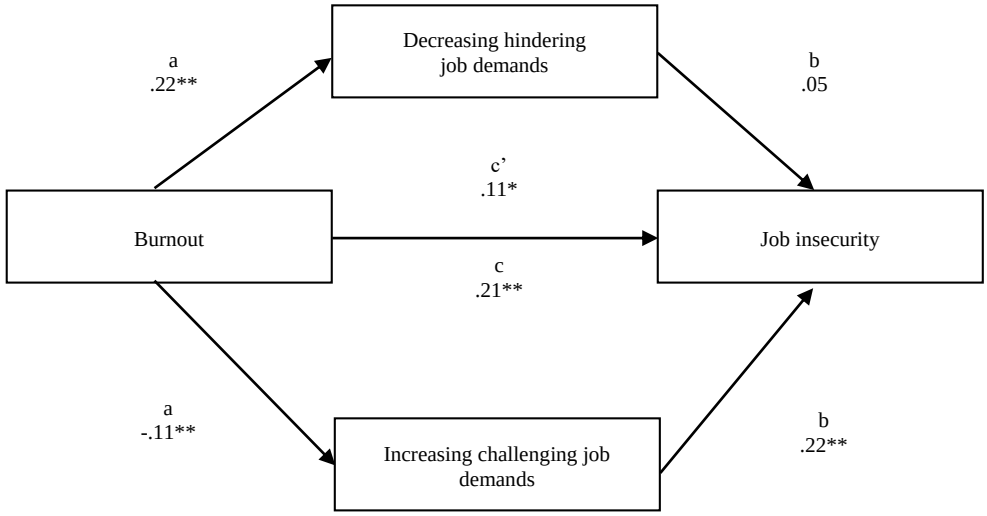

Figure 3. The relationship between burnout and job insecurity mediated by decreasing hindering job demands and increasing challenging job demands

Note: *p<0.05, **p<0.01.

Discussion

In this study, we wanted to investigate the relationship between burnout and JI, mediated by job crafting, and also the relationship between JI and burnout, mediated by the same variable, in order to tap the potential of a reciprocal relationship. All four components of job crafting correlated with burnout, which is in line with other results (Tims, Bakker, & Derks, 2012a). Only two of the four components of job crafting were correlated with both burnout and JI. These two components were decreasing hindering job demands and increasing challenging job demands. We evaluated two models with decreasing hindering job demands as mediator, one in which JI was the independent variable and one in which burnout was the independent variable, and two models with increasing challenging job demands as mediator, one in which JI was the independent variable and one in which burnout was the independent variable, too.

Results indicate that workers who are confronted with burnout will reduce their job demands in general (they reduce both challenging demands and hindrance demands). This is in accordance with the Conservation of Resources Theory (Hobfoll, 2001), because employees try to reduce their energy (an essential resource) consumption when they are exhausted. Increasing challenging demands is associated positively with JI. Perhaps when employees take additional tasks they no longer focuses on the main duties, becoming less productive, which ultimately leads to higher JI. The inverse relationship is also possible, being insecure regarding their jobs employees may take additional tasks to demonstrate their commitment to the company, believing that such managers will decide to keep them in the firm.

The fit indices showed that the models in which burnout had a direct and an indirect effect on JI fit the data better than the models in which JI had a direct and an indirect effect on burnout. This contradicts all longitudinal studies done so far because studies showed that it is more likely that JI leads to burnout (De Witte, Pienaar, & De Cuyper, 2015). One possible explanation for this result is that using mediation models, we investigated the common variance of JI, burnout and job crafting. This means that although generally JI leads to burnout, when we consider job crafting as a mediator and the common variance of all three variables, the inverse relationship is stronger. This is in accordance with the JD-R model (Bakker & Demerouti, 2014), which claims that JI, a job demand, would lead to burnout, which in turn would lead to job crafting. Then, job crafting will might have an influence on JI.

Then we tested models with both mediators (decreasing hindering job demands and increasing challenging job demands). Again, the models with burnout as the independent variable fit the data better. However, the correlation between decreasing hindering job demand and job insecurity was not statistically significant. This reveals that decreasing hindering job demand is not actually a mediator between JI and burnout. The only component of job crafting that mediates the relationship is increasing challenging job demands.

Although the study is cross-sectional and we cannot draw conclusions about causality, we can suggest a possible feedback loop based on the results. Given the fact that there is a negative correlation between burnout and increasing challenging job demands and a positive correlation between increasing challenging job demands and JI, we can assume that when the employees are exhausted, they will tend to reduce the frequency of behaviors associated with increasing demands, with in turn will lead to lower levels of JI. A possible explanation for this relationship is that the employees will decide to only focus on their core activities and try to reduce all additional tasks when they feel exhausted. Doing this, they will have enough time and enough energy to fulfill the main tasks, which could lead to a lower job security, because they may think that their job is not threatened by their lack of productivity.

The results are also in accordance with the Conservation of Resources Theory (Hobfoll, 2001). The results suggest that employees with high levels of burnout tend to reduce the frequency of behaviors associated with the increase of challenging job demands (they stop taking additional tasks and they stop learning about the new developments) in order to reduce their energy consumption. These behaviors lead to lower JI, probably because reducing the number of additional tasks, which is a form of job crafting, employees will conserve their energy and they will use it in order to complete their main tasks, which can reduce their concerns about the future of their jobs. However, decreasing hindering job demands is not associated with JI, perhaps because this dimension of job crafting involves mostly minimizing contact with people whose problems affect the employees emotionally or people whose expectations are unrealistic. Working alone, in front of the computer, employees from the IT industry may not feel less secure when they reduce the contact with their colleagues. This finding might not be valid for other samples from other industries, where the work is done mostly in teams.

In conclusion, increasing challenging job demands was found to mediate the relationship between burnout and JI. The other three components of job crafting were not highlighted as mediators. There is variation between burnout and JI left that cannot be explained by job crafting. Additional mediators that were not covered or tested here that might explain the remaining variance are perceived control (Vander Elst, Van den Broeck, De Cuyper, & De Witte, 2014), psychological contract breach, and distributive injustice (Piccoli & De Witte, 2015).

Practical implications

Knowing that when employees are insecure of their job they stop taking additional tasks and they stop learning about the new developments, we can assume that over time these employees will lack information and they will develop a passive attitude regarding work. In the context of an organizational climate characterized by JI, it is appropriate for management to develop programs to inform the employees about the new changes and to create incentives in order to motivate them to get involved in additional tasks. The same measures can be applied for an increased level of burnout. In addition, in order to avoid the decrease of challenging job demands, managers can identify ways to reduce both burnout and JI.

Limitations and future research

There are several limitations to this study. First, the study was based on self-reported measures, which might raise questions of common-method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, job crafting was reported only at the individual level. Employees rarely operate by themselves; they are most often part of a team. It is recommended to study the concept of job crafting also at a team level in future studies. Third, even though the employees involved in the study worked in a large number of countries, cross-cultural differences related to job crafting were not captured in this study. Cross-cultural perspectives in job crafting could enrich future studies. Also, the questionnaire was distributed in English to all employees from abroad Romania, even if their native language was not English. This could affect the study results. Fourth, the sample is composed of young, highly skilled and employable workers in a growing industry. The results cannot be generalized to other samples, due to the specific features of the industry. And finally, the studied variables were measured only once. Because of the research design, it is difficult to draw conclusions about causality. Future research may test the newly proposed relationship using a longitudinal design.

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