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The associations between job insecurity, depressive symptoms and burnout: The role of performance-based self-esteem

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Abstract

Despite agreement on the negative effects of job insecurity, more knowledge needs to be generated on the health effects in terms of burnout and depressive symptoms and for whom job insecurity has these negative effects. The present study aims to investigate the associations between job insecurity and burnout and depressive symptoms respectively, by studying the moderation influences of performance-based self-esteem (PBSE), a form of contingent self-esteem. A population-based sample with 4145 twins was used. The results showed that job insecurity was significantly associated with both burnout and depressive symptoms, and that PBSE acted as a moderator, so that the associations were stronger for individuals with high PBSE than for individuals with low PBSE. The study contributes by including a personality characteristic to gain more knowledge about the mechanisms of job insecurity on mental ill-health, and by illustrating that job insecurity has an impact on severe health outcomes in terms of burnout and depressive symptoms.

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Keywords
Burnout, contingent self-esteem, depressive symptoms, job insecurity, moderation, performance-based self-esteem

Job insecurity has become a serious concern among employees and studies have identified job insecurity as one of the more important stressors in contemporary working life (De Cuyper et al., 2008; Society for Human Resource Management, 2011). Even though research has focused on identifying potential consequences, health-related problems have been studied less frequently compared to other outcomes such as work and job attitudes (Sverke et al., 2002). More severe indicators of ill-health such as burnout and depression have gained little attention so far (with exceptions of Boya et al., 2008; Dekker and Schaufeli, 1995; Ferrie, 2002; Hu and Schaufeli, 2011; Nordlund et al., 2010; Pelfrene et al., 2003; Rugulies et al., 2006). However, in particular these kinds of outcomes may lead to severe negative effects for the individual, for organizations as well as for the society. Hence, this study focuses on this research gap by investigating the associations between job insecurity, depressive symptoms and burnout.

In addition, there is a need to better understand for whom job insecurity is related to certain negative consequences. According to, for instance, the transactional stress theory (Lazarus and Folkman, 1984), employees are likely to react differently to stressors because they have different sets of coping strategies and resources. These inter-individual differences in the reactions to job insecurity are supported by two meta-analyses on job insecurity consequences that have found variations in the strengths of the association between job insecurity and health outcomes (Cheng and Chan, 2008; Sverke et al., 2002), which might be a sign that certain groups are more vulnerable than others. Hence, the question of generalizability of the association between job insecurity and health outcomes needs to be addressed more clearly. This is in line with important calls that have been put forth in the field of occupational psychology; to investigate subgroups to better understand the mechanisms behind the relation of work stressors such as job insecurity and potential adverse consequences (Sverke et al., 2010; Taris and Kompier, 2003, 2014). Therefore, work and individual characteristics should be considered when studying the adverse consequences of job insecurity (Richter et al., 2010; Stiglbauer et al., 2012). In order to identify subgroups of employees that react more severely to job insecurity, this study includes performance-based self-esteem (PBSE), a contingent form of self-esteem, which has been found to be particularly important in contemporary working life (Allvin et al., 2006). As individuals with high PBSE feel pressured to demonstrate, prove and earn their self-worth through achievements, these individuals may react more strongly to job insecurity as they risk losing the arena to which they tie their self-esteem.

The study addresses the questions of whether (1) job insecurity is positively associated with burnout and depressive symptoms and (2) PBSE acts as a factor that strengthens the associations between job insecurity and burnout and depressive symptoms respectively. This study therefore contributes to the existing job insecurity literature in two ways. First, by investigating two important outcomes that have so far gained little research attention, but are of great importance to show that job insecurity is a serious

stressor that affects employees and organizations beyond attitudinal consequences. It is highly relevant to investigate these outcomes particularly since long-term sickness absence due to mental ill-health is increasing in Sweden and many other countries. Hence, we need to better understand the causes of, for instance, depression and burnout (Vingård, 2015). Second, PBSE can potentially be a factor making employees more vulnerable to health consequences of job insecurity, which has been very little researched. With further knowledge about the associations between job insecurity, burnout and depressive symptoms, as well as risk groups, preventive efforts can be tailored more effectively.

The associations between job insecurity and burnout or depression

Job insecurity is the employee's concern about the future permanence of the current employment (Van Vuuren and Klandermans, 1990). The transactional stress theory is used in this study as a framework to study job insecurity. The framework by Lazarus and Folkman (1984) describes the appraisal of situations as the key mechanism in order to understand stressors and their negative consequences. Employees and their work environment are connected through cognitive appraisal, which consists of two stages, described as primary and secondary appraisal (Lazarus and Folkman, 1984; Troup and Dewe, 2002). During primary appraisal, employees evaluate a specific event and determine its importance for their personal well-being. A situation can be appraised as insignificant, threatening, harmful or challenging. In the case of job insecurity, employees most likely perceive the uncertainty of their employment future as a threat, since for most people the employment is the basis for economic stability as well as related to their identity. Additionally, work provides people with a social network and gives them the possibility to produce something they enjoy and value (cf. Jahoda, 1982). Job insecurity therefore entails a threat to a lot more than just the economical aspect of the employment. After a situation has been appraised in terms of its meaning, e.g. that job insecurity is perceived as a potential threat to well-being, the process of secondary appraisal starts. Here, individuals further process situations that they have perceived as challenging or threatening, and available resources for handling a situation are evaluated along with whether these are likely to lead to a desired outcome, e.g. resolving the stressor (Lazarus and Folkman, 1984). If individuals appraise their resources as insufficient to address the stressor, i.e. that they cannot prevent or do anything to diminish the perceived threat of job loss, they will experience stress (Lazarus and Folkman, 1984). Even though these theoretical assumptions have been strengthened empirically through two meta-analyses where job insecurity has been related to decreased health, job satisfaction, commitment and increased turnover intention (Cheng and Chan, 2008; Sverke et al., 2002), more studies have investigated attitudes towards work and the job. More specific indicators of ill-health such as burnout or depression have been less frequently studied even though the consequences affect both organizations and the society as a whole. Especially burnout, but also depression may be related to the work situation. For instance, burnout has been prospectively associated with a number of negative outcomes such as poor job performance (Wright and Cropanzano, 1998), mental ill-health (McManus et al., 2002), physical ill-health (Melamed et al., 2006), long-term sickness absence (Hallsten et al.,

2011) and all-cause mortality (Ahola, 2010). Similar to burnout, depression has been found to be related to outcomes in the work context such as impaired work performance and an increase in the risk of accidents (Haslam et al., 2005). Depression is also one of the leading causes of work incapacity in terms of sickness absence and disability pension (Harvey et al., 2009; Henderson et al., 2011).

Burnout, which represents a chronic stress reaction that is expressed as severe exhaustion (Rothmann et al., 2003), has been found to evolve due to a combination of a problematic and strenuous work situation and a high but anxious work involvement (Hallsten et al., 2005; Pines et al., 1981; Schaufeli and Enzmann, 1998). So far, burnout has been less frequently investigated in association to job insecurity, even though job insecurity is one of the stressors that employees are highly concerned about today (De Cuyper et al., 2008). Exceptions are three studies that have shown an association between job insecurity and burnout (Dekker and Schaufeli, 1995; Hu and Schaufeli, 2011; Nordlund et al., 2010) and a study that investigated whether job insecurity was related to emotional exhaustion over time, the core component of burnout (Vander Elst et al., 2012). In line with previous studies we therefore hypothesize job insecurity to be associated with burnout.

A variety of studies have identified an association between job insecurity and depressive symptoms, such as feeling a loss of interest, being sad or feeling drained of energy (Boya et al, 2008; Pelfrene et al., 2003; Rugulies et al., 2006). Studies have found an association between job insecurity and depressive symptoms cross-sectionally (Boya et al., 2008; Burgard et al., 2009; Meltzer et al., 2010), and that job insecurity was a predictor for the use of antidepressant medication (Rugulies et al., 2010). In line with previous studies we therefore hypothesize job insecurity to be associated with depressive symptoms.

Performance-based self-esteem in the context of job insecurity

Despite an overall agreement regarding the detrimental negative effects of job insecurity more knowledge needs to be generated that addresses for whom job insecurity has negative effects. This is in line with two calls from job insecurity and occupational health research that requested more knowledge on mechanisms between job insecurity and health as well as for whom the work stressors are particularly demanding (Näswall et al., 2005; Sverke et al., 2010; Taris and Kompier, 2003, 2014). According to the transactional stress theory, cognitive appraisal is the main process to understand stressors and their outcomes (Lazarus and Folkman, 1984). Individual characteristics can affect cognitive appraisal through influencing how employees perceive their environment and in particular their resources, which in turn will affect how strongly employees react to a stressor. Previously, individual background variables such as age or tenure (Cheng and Chan, 2008), employability (Silla et al., 2009) and job dependence (Richter et al., 2013) were found to be moderators in the association between job insecurity and its outcomes.

In this respect, performance-based self-esteem (PBSE), which is a measure of contingent self-esteem referring to a compelling motive to gain or maintain one's self-esteem through achievements (Hallsten et al., 2005), is considered important to study as a potential mechanism in the association between job insecurity and burnout and job insecurity

and depressive symptoms. Individuals with high PBSE are found to be more susceptible to strenuous investments in work or in other self-defining arenas in order to validate their self-worth through achievements. PBSE has been found to be a predictor of various forms and indicators of ill-health. For instance studies found a relation to cognitive stress symptoms (Albertsen et al., 2010), work–home conflict (Innstrand et al., 2010), hearing problems (Hasson et al., 2011), sickness presenteeism (Löve et al., 2010) and long-term sickness absence (Hallsten et al., 2011). Moreover, PBSE has in various studies been found to be strongly associated with burnout (Blom, 2012; Hallsten, 2005; Rudman and Gustavsson, 2011) and contingent self-esteem has been related to depression (Crocker and Park, 2004; Lakey et al., 2014). Work performance may be one way for individuals with high PBSE to prove their worth, which implies that the threat of losing the employment might have especially detrimental consequences for these individuals. Employees with high PBSE may thus perceive that they are about to lose a central source for potential self-worth validation, hence reacting more strongly to job insecurity. Some empirical support can be found in previous studies which have investigated general self-esteem as a moderator between work stress and ill-health. For instance, in a study by Mäkikangas and Kinnunen (2003), general self-esteem was found to moderate the association between poor organizational climate and well-being in men, where individuals with low self-esteem were more vulnerable and reported higher levels of mental distress and emotional exhaustion compared to individuals with high self-esteem.

Based on previous results, individuals with high PBSE are hypothesized to react more negatively in terms of burnout as well as depressive symptoms compared to those with low PBSE in a situation with job insecurity, as those with high PBSE are particularly sensitive to situations in which they can lose an arena for notable achievements and a potential gain in self-worth.

Aims and hypotheses

The present study aims at studying the associations between job insecurity, burnout and depressive symptoms, respectively, and the moderating role of PBSE. The study is based on four hypotheses:

H1. Job insecurity is positively related to burnout.

H2. Job insecurity is positively related to depressive symptoms.

H3. PBSE acts as a moderator and enhances the association between job insecurity and burnout.

H4. PBSE acts as a moderator and enhances the association between job insecurity and depressive symptoms.

Method

Participants

The source population consisted of 25,378 twins from the Swedish Twin Registry (STR) who were born between 1959 and 1985 and participated in the STAGE (Study of Twin

Adults: Genes and Environment) web-based questionnaire in 2005 (Lichtenstein et al., 2006) (response rate 60%). Various demographic groups are represented in the sample, such as students, employees from various sectors and professions, and persons on sick-leave. However, in the study group only employees with full-time employment (n = 11,637) and only individuals who provided information on their experience of job insecurity, PBSE, burnout and depressive symptoms were included. In order to have a sample of non-related individuals only one sibling was randomly selected from the complete twin pairs. Hence, the effective sample included 4145 employees, the mean age was 35 years and 47% were women. Forty-six percent had children living at home, 15% lived alone, while 58% lived with a partner and 27% with friends or parents. Five percent indicated elementary school as their highest education, 6% vocational school, 43% upper secondary school and 46% had a university degree.

Measures

Job insecurity was measured with a scale composed of three questions, formulated as 'How often have you during the last 12 months perceived job insecurity due to notice to quit?', 'How often have you during the last 12 months perceived job insecurity due to downsizing?' and 'How often have you during the last 12 months perceived job insecurity due to reorganizations?' These questions were answered on a four-point Likert scale ranging from 1 (never/almost never) to 4 (often). Higher scores indicate an increased experience of job insecurity. The Cronbach's alpha in the present study was .85.

Burnout was measured as a state of exhaustion with three items from the Pines Burnout Measure (Pines BM) (Pines et al., 1981), expressed as the adjectives 'Feeling depressed', 'Being emotionally exhausted' and 'Feeling run down'. This measure is not limited to a working population, and has been found to equally well distinguish burned-out from non-burned-out subjects as the Maslash Burnout Inventory, the most commonly used scale to measure burnout in working populations (Demerouti et al., 2001). Respondents answered on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating more burnout. Further, the three items of Pines BM were chosen as they were found to correlate strongly (r = .90) with the full 21-item Pines BM (Hallsten, 2005). In the present study, Cronbach's alpha for the three-item scale was .87.

Depressive symptoms were measured with the Center for Epidemiologic Studies Depression Scale (CES-D) and consist of 11 items (Radloff, 1977). Respondents rated on a four-point Likert scale ranging from 1 (not at all) to 4 (all the time/mostly all the time) whether they for instance felt sad, tired or experienced a loss of interest. In the present study, Cronbach's alpha for the depression scale was .86.

PBSE consists of items on cognitions related to general contingent self-esteem, such as contingency and imperative beliefs and ego-oriented motives without reference to any specific domain (Hallsten, 2005). The PBSE scale is composed of the following four items: 'I think that I sometimes try to prove my worth by being competent'; 'My self-esteem is far too dependent on my daily achievements'; 'At times, I have to be better than others to be good enough myself'; and 'Occasionally, I feel obsessed with accomplishing something of value', with a response scale ranging from 1 (fully disagree) to 5

(fully agree). Higher values indicate higher levels of PBSE. The scale has shown convergent validity (Hallsten et al., 2005) and the reliability in the present study was .86.

Covariates in the study were age, sex and education. This is based on previous studies showing that women and highly educated individuals score higher on PBSE (Hallsten et al., 2005) and burnout (Purvanova and Muros, 2010) compared to men and individuals with low education. Contrary, individuals with low education experience more job insecurity than individuals with high education (De Witte, 1999). Age has been found to be related to job insecurity (De Witte, 2010), where in particular individuals experience job insecurity and react to it when they are responsible to provide for others. Inconclusive results have been found on sex and its relation to job insecurity (De Witte, 1999). Education was measured on a three-point categorical scale indicating the highest education level.

Statistical analyses

Descriptive statistics and correlations between included variables were computed. In order to test our hypotheses on the direct as well as moderation effect of PBSE, the PROCESS macro (Hayes, 2013) was used in SPSS 22. In order to investigate significant interactions further we examined the simple slopes. For significant interactions, the regression line of job insecurity on burnout/depressive symptoms was plotted for high and low PBSE (+/–*SD*) in line with the recommendation of Aiken and West (1991). We report unstandardized (*b*) regression weights. All independent variables were standardized (mean of 0 and *SD* of 1) before the interaction terms were calculated, reducing multicollinearity and making the simple slope easier to test (Dawson and Richter, 2006). The project was evaluated and approved by the Regional Ethical Review Board, Stockholm, Sweden (2009/2053-31/5, date 18 February 2010).

Results

Descriptive statistics (Table 1) showed that all included variables were significantly correlated except the bivariate association between job insecurity and education.

Main effects

In line with our first hypothesis job insecurity was positively associated with burnout ($b = .22$, $p < .05$) when controlling for age, sex and education (Table 2). Similarly, and in line with our second hypothesis, job insecurity was positively associated with depressive symptoms ($b = .03$, $p < .05$) when controlling for age, sex and education.

Moderation

Results for hypotheses 3 and 4, predicting employees with high PBSE to be more vulnerable to job insecurity and therefore exhibit a stronger association of job insecurity with burnout and depressive symptoms respectively are presented in Table 2. In line with our predictions PBSE moderated the effect of job insecurity on burnout ($b = .04$,

Table 1. Correlations, means (*M*) and standard deviations (*SD*) as well as reliability (in diagonal) between job insecurity, performance-based self-esteem (PBSE), burnout and depressive symptoms and covariates (age, sex, education) in a sample of 4145 individuals.

	M	*SD*	1	2	3	4	5	6	7
1. Age	35.5	6.7	–						
2. Sex	.47	–	.09*	–					
3. Education	.48	–	−.00	.12*	–				
4. Job insecurity	1.51	.75	.03*	.07*	.01	.85			
5. PBSE	2.73	1.12	−.10*	.08*	.18*	.11*	.86		
6. Burnout	2.40	1.22	.03*	.22*	.07*	.19*	.36*	.87	
7. Depressive symptoms	1.40	.25	−.05*	.07*	−.02	.14*	.24*	.50*	.75

*$p < .05$.

Table 2. Regression analyses for main effects of job insecurity for burnout and depressive symptoms and moderation effects of PBSE (unstandardized beta coefficients).

	Burnout (*N* = 4149)	Depressive symptoms (*N* = 4166)
Age	.01*	−.01*
Sex	.44*	.02*
Education	−.03	−.03*
Job insecurity	.22*	.04*
PBSE	.37*	.05*
Job insecurity*PBSE	.04*	.01*
ΔR^2 for interaction	.001*	.001*

*$p < .05$.

$p < .05$). In line with our prediction the association between job insecurity and burnout was stronger for individuals with high PBSE compared to individuals with low PBSE. The slope of the 'high PBSE' regression line ($b = .27$, $t = 9.00$, $p =< .05$) was steeper than the slope of the 'low PBSE' regression line ($b = .17$, $t = 5.02$, $p =< .05$). Figure 1 shows the pattern of the moderation.

In line with our prediction PBSE moderated the effect of job insecurity on depressive symptoms ($b = .01$, $p < .05$). In line with our prediction the association between job insecurity and burnout was stronger for individuals with high PBSE compared to individuals with low PBSE. The slope of the 'high PBSE' regression line ($b = .05$, $t = 7.42$, $p =< .05$) was steeper than the slope of the 'low PBSE' regression line ($b = .02$, $t = 2.80$, $p =< .05$). Figure 2 shows the pattern of the moderation.

Discussion

In the present study we first investigated severe indicators of ill-health in terms of burnout and depressive symptoms in association to job insecurity. Since sickness absence due to mental ill-health has increased over the last years, it is therefore of specific interest to

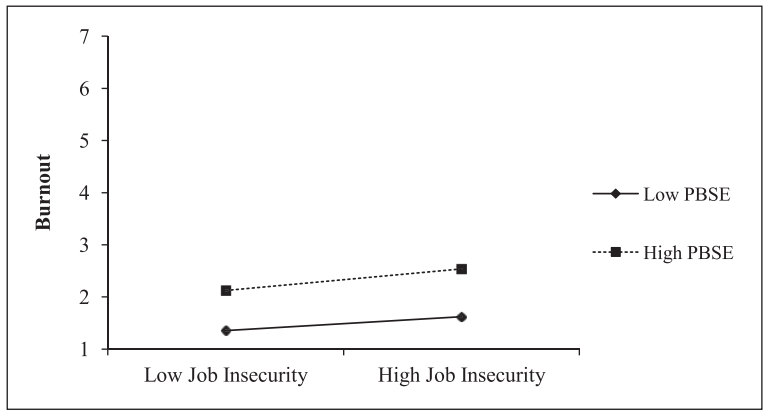

Figure 1. Interactions between job insecurity, performance-based self-esteem (PBSE) and burnout.

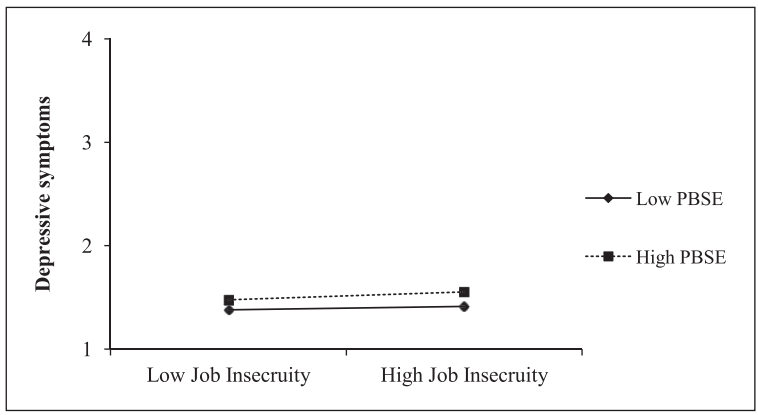

Figure 2. Interactions between job insecurity, performance-based self-esteem (PBSE) and depressive symptoms.

study how one of the major work stressors – job insecurity – is related to burnout and depressive symptoms (Vingård, 2015). Second, this study aimed at increasing our understanding of for whom job insecurity is associated to burnout and depressive symptoms. This study answers important calls that have been put forth in the field of occupational psychology, that is, to investigate subgroups to understand the mechanisms behind the relation of work stressors such as job insecurity and their consequences (Sverke et al., 2010; Taris and Kompier, 2003, 2014).

In line with previous research (Dekker and Schaufeli, 1995; Hu and Schaufeli, 2011; Nordlund et al., 2010) and our hypotheses, we found that job insecurity was positively associated with burnout as well as depressive symptoms (Boya et al., 2008; Burgard, 2009; Meltzer et al., 2010). Employees who experience job insecurity thus report more mental

health symptoms such as burnout and depressive symptoms. These results fit well into previous research on the outcomes of job insecurity, in particular the two meta-analyses that have summarized the most frequently studied outcomes of job insecurity (Cheng and Chan, 2008; Sverke et al., 2002). However, this study extends previous research by confirming that job insecurity is not only related to attitudinal outcomes, that are predicted to develop immediately after experiencing job insecurity (Sverke et al., 2002), but that job insecurity also seems to affect mental health, which is said to be a long-term consequence (Sverke et al., 2002). The present study emphasizes the importance of working actively with reducing job insecurity and its health consequences in an organizational context.

This study also assessed the importance of PBSE on the association between job insecurity, burnout and depressive symptoms. We hypothesized that employees high on PBSE would suffer more from job insecurity, hence, that the association with burnout and depressive symptoms would be stronger for these individuals. This was also confirmed by the results. PBSE moderated and enhanced the association between job insecurity and burnout: individuals with high PBSE reported a stronger association between job insecurity and burnout than individuals with low PBSE. This result corresponds to the results from a study by Mäkikangas and Kinnunen (2003) where general self-esteem, another individual variable investigated to differentiate between individuals, moderated the effects of organizational climate on well-being. In addition, PBSE moderated the association of job insecurity and depressive symptoms so that individuals with high PBSE were more vulnerable than those with low PBSE in a situation of job insecurity. Hence, it seems particularly threatening for individuals who invest high efforts in work performance as a means to gain self-worth to be in a situation in which they may risk losing their job, which is an arena for self-validation. These results which indicate that personality-related factors do matter in the context of job insecurity extend our knowledge on job insecurity and are in line with theoretical assumptions such as from the transactional stress theory predicting that the perception of stressors and the development of its outcomes is highly dependent on the individual's own resources (Lazarus and Folkman, 1982). The moderating effects of PBSE on the association between job insecurity and burnout/depressive symptoms furthermore suggest that individuals high on PBSE may need more support and attention from their employer, in particular during periods with higher uncertainty in the organization, in order to reduce mental ill-health symptoms.

The present result implies that employees' propensity to pursue self-esteem through performance needs to be taken into account in order to prevent burnout or depressive symptoms in a situation of job insecurity.

The four hypotheses put forth in the present study were confirmed. However, care must be taken when interpreting the results as the effects were rather low compared to other studies (Pelfrene et al., 2003; Rugulies et al., 2006). There may be several explanations for this. First, the measurement of job insecurity could have caused the lower effects. A measure was used that included specific causes for job insecurity, namely organizational changes such as previous notices to quit, downsizing or reorganization, while the more frequently used scales in job insecurity research (De Witte, 2000; Hellgren et al., 1999) assess if employees are worried about the future of their job in general and do not include the reason for the worry in the item wording. Organizational change is one of the

antecedents of job insecurity but by far not the only reason, which a recent meta-analysis on the antecedents of job insecurity by Keim et al. shows (2014). Moreover, a study focusing on the comparison of different measures of job insecurity found that the operationalization of job insecurity mattered. Job insecurity measured as holding a temporary contract compared to asking employees about their worry about their employment future led to an underestimation of the effects of job insecurity on its outcomes (De Witte and Näswall, 2003). In addition, stronger associations with ill-health outcomes were found when employees were asked to rate how worried they are regarding their employment future without introducing the cause of this worry (De Witte and Näswall, 2003). Hence, future studies should include the conventional scales to measure job insecurity to increase the generalizability of results. Second, the Swedish work life context and labor legislations aiming to secure employment and provide security to employees might also affect our results as Swedish employees may be less insecure compared to employees in other countries. The mean level of job insecurity is rather low and it would be expected that it is employees that suffer from high job insecurity that also develop the more negative consequences. Therefore, our study might underestimate the effects of job insecurity and ill-heath as well as PBSE as an important moderator. Hence, replicating this study in an employee group where job insecurity is a larger problem is to be recommended.

However, even though rather weak associations were found in this study, Aguinis et al. (2005) have shown in a meta-analysis that the effect sizes of moderating effects generally are quite low and it should be noted that also small effect sizes may have considerable practical implications as demonstrated in numerous studies (Breaugh, 2003; Martell et al., 1996). This suggests that the present results may have practical utility; for instance, PBSE may be taken into account in the circumstances of downsizing at the workplace. To prevent burnout and depression individuals with high PBSE may be offered particular attention.

A main strength of this study was that it was based on a large population based sample of 4078 individuals in various professions and ages, which contributes to the generalizability of our findings to the Swedish population as a whole, in the same age groups. However, a limitation is the cross-sectional design, which restricts conclusions of the direction of the associations. Longitudinal studies are often encouraged in research concerning stress in order to study development and the direction of the associations. However as PBSE has not been studied in the context of job insecurity, and only cross-sectional data were at hand, a cross-sectional design was chosen in order to investigate this new study idea. PBSE might also function as an antecedent of job insecurity, which cannot be totally rejected due to our cross-sectional design. For instance Kinnunen et al. (2003) found that self-esteem and job insecurity have a reciprocal relation. However, cross-sectional studies constitute a first step in order to identify issues that should be studied over time (Spector, 2006). In addition, we consciously decided to only focus on the association of job insecurity and its potential consequences in terms of burnout and depressive symptoms that represent more severe signs of mental ill-health, as these health outcomes are increasingly frequent in western societies today and at the same time less investigated in the context of job insecurity. Hence, we suggest that the relation of job insecurity, PBSE, burnout and depression should be investigated also longitudinally in future research and particularly focus should be on the causal direction.

The practical implications of this study concern two things. First, organizations should work more actively to prevent job insecurity, which then may result in decreased mental ill-health at the workplace. Clear and transparent communication about organizational changes is one way to prevent experiences of job insecurity (Jiang and Probst, 2013). Additionally, employee participation in decision making can be implemented during restructurings to increase employees' feelings of control, as well as to keep them informed on what is going on (Vander Elst et al., 2014). Second, an individual's supervisor or colleagues could benefit from paying attention to the individual behavior pattern in terms of PBSE, such as difficulties to say no, self-criticism and high need for control, in order to prevent burnout and depressive symptoms.

To conclude, the present results show that job insecurity is significantly associated with burnout and depressive symptoms, and that PBSE moderates the association between job insecurity and burnout as well as between job insecurity and depressive symptoms. The study contributes to the research field of job insecurity by including a personality characteristic, PBSE, to gain more knowledge about the mechanisms of job insecurity on mental ill-health outcomes. However, somewhat contrary to our expectations, the moderating effects of PBSE were rather modest. Nevertheless, the study results suggest a need to consider individual vulnerability factors such as self-esteem pursuits to reduce burnout and depressive symptoms during times of job insecurity.

Declaration of Conflicting Interests

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