

Workplace bullying as an antecedent to job insecurity and intention to leave: a 6-month prospective study

Mats Glambek, Stig Berge Matthiesen, Jørn Hetland and Ståle Einarsen, University of Bergen

Human Resource Management Journal, Vol 24, no 3, 2014, pages 255–268

Workplace bullying is a severe problem in contemporary working life, affecting up to 15 per cent of employees. Among the detrimental outcomes of bullying, it is even postulated as a major risk factor for exclusion from work. In support of this claim, the current study demonstrates that exposure to bullying behaviour predicts an increase in both levels of job insecurity and intention to leave over a 6-month time lag, among a random sample of North Sea workers (n = 734). The findings suggest that bullied employees are insecure about the permanence and content of their job, and they may be at risk of turnover and exclusion from working life. It is recommended that these outcomes are taken into consideration when incidences of workplace bullying are addressed.

Contact: Mats Glambek, Department of Psychosocial Science, Faculty of Psychology, University of Bergen, Christiesgate 12, 5020 Bergen, Norway. Email: mats.glambek@psysp.uib.no

INTRODUCTION

Workplace bullying is the process in which an employee is subjected to frequent negative acts (e.g. at least once a week) for a relatively long period of time (e.g. 6 months) by peers or superiors, against which defence or retaliation is hindered by the recognition of a formal or informal power imbalance (Einarsen *et al.*, 2011). The acts involved may be work related as well as person related, and they comprise direct acts, such as verbal aggression, obstruction of work tasks and physical violence, as well as indirect behaviours, such as social exclusion or veiled job sabotage (Bartlett and Bartlett, 2011). Workplace bullying is experienced occasionally by at least 9–15 per cent of the general workforce, and to a severe extent by approximately 3–4 per cent (Zapf *et al.*, 2011), and can thus be described as a significant challenge for many employees. The consequences are often vast, both for the target, the witnesses and the organisation, encompassing a range of mental and physical health problems for the individuals affected (Hogh *et al.*, 2011a) as well as considerable negative financial and organisational outcomes for the employer (Hoel *et al.*, 2011).

One of the many proposed detrimental individual outcomes of workplace bullying is the risk of exclusion from work (Leymann, 1992; Berthelsen *et al.*, 2011). The term exclusion from work may reflect any illegitimate distance between an employee and the work they were hired to do. For instance, if the bullying situation is seen as a disciplinary problem by the employer, the target may be discharged or internally relocated (Leymann, 1992; MacIntosh, 2005). In other cases, the target of workplace bullying may suffer health impairment with subsequent sick leave, rehabilitation or disability pension, or may choose to quit 'voluntarily' because of the adverse nature of the working conditions in which bullying occurs (Berthelsen *et al.*, 2011).

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According to Leymann (1990, 1992, 1996), if bullying at work is not handled properly by the employer, exclusion from work in one form or another is typically the final stage of the bullying process, leading the target to further stigmatisation and victimisation, and difficulty in finding and maintaining work later on. Against the backdrop of this hypothetical notion, the current study investigates two outcomes of bullying that are highly related to such potential exclusion from work, namely job insecurity and intention to leave. More specifically, it is hypothesised that employees exposed to bullying behaviour at work will display higher levels of insecurity about the future existence and content of their job, as well as an increased willingness to leave the workplace voluntarily. In line with the common assumption that the bullying behaviours must last for at least 6 months before the term 'bullying' can be applied (*cf.* Leymann, 1992; Einarsen *et al.*, 2011), a time lag of 6 months was used to test these notions. This relatively short time lag is considered well suited for the current research questions as it captures the potentially evolving and escalating process of bullying while at the same time measuring the outcomes before too many incidences of actual workplace exclusion have occurred. The present study represents one of few attempts to address the Leymann hypothesis using prospective and representative data, and it is – to the best of our knowledge – the first study to explicitly look at the longitudinal relationship between bullying and job insecurity.

Workplace bullying and job insecurity

Job insecurity refers to expectations and concerns about the permanence of one's work situation and has accordingly been defined as 'perceived powerlessness to maintain desired continuity in a threatened job situation' (Greenhalgh and Rosenblatt, 1984: 438), or simply as one's 'expectations about continuity in a job situation' (Davy *et al.*, 1997: 323). Some researchers also distinguish between different dimensions of the construct. For instance, Hellgren *et al.* (1999) maintain that while worrying about losing one's job may be called quantitative job insecurity, having concerns about valued aspects of one's job, such as unsatisfactory salary prospects, may be understood as qualitative job insecurity.

Job insecurity is usually described as a result of macro-level factors (such as national levels of unemployment or organisational change), individual job-related factors (such as length of service) and personality traits (such as locus of control) (Ashford *et al.*, 1989; De Witte, 2005). In combination, these factors are seen as resulting in the perceived likelihood of losing either valued job aspects or the job itself, and the subjective experience of job insecurity develops if the employee feels powerless to resist the job threat (Greenhalgh and Rosenblatt, 1984; Ashford *et al.*, 1989). However, we hold that threats to the job may also develop on an interpersonal level. More specifically, we believe that exposure to workplace bullying behaviour may lead targets to perceive the continuity of their job to be threatened and therefore to display elevated levels of job insecurity. This notion is in line with the hypothesis of Leymann (1992), claiming that bullying is related to exclusion in working life. Moreover, because powerlessness to resist the unwanted behaviour is at the core of bullying (Saunders *et al.*, 2007), just as powerlessness to resist any threats to desired continuity in a job is at the core of job insecurity (Greenhalgh and Rosenblatt, 1984), the notion is also theoretically reasonable. That is, if the content and nature of the bullying behaviours represent a threat to desired continuity in the job, the target is probably powerless to fight it, thus coming to experience elevated levels of job insecurity over time.

Although this notion has not been systematically investigated earlier, there is some evidence in the literature to support it. For instance, threats of job loss are sometimes used as a bullying behaviour in itself (Fox and Stallworth, 2005), in all likelihood affecting levels of *quantitative* job insecurity. In fact, in a qualitative study among targets and witnesses of workplace bullying, Lutgen-Sandvik (2006) reported that fear of discharge was a frequently voiced concern.

Interestingly, in another qualitative study, employees were found to apply the term 'bullying' to organisational threats of dismissal, of being replaced by machines and becoming redundant (Liefvooghe and Davey, 2001). In addition, *qualitative* job insecurity may also be affected, for instance, when the bullying behaviour is work related. Work-related bullying may include unfair criticism and providing the target with excessive workloads or work tasks irrelevant to the job (Jóhannsdóttir and Ólafsson, 2004). Targets may even experience being relocated to humiliating and degrading tasks and positions (Leymann, 1990; Salin, 2003), which is likely to be related to a loss of valued job aspects. In addition, workplace bullying has repeatedly been demonstrated as a strong antecedent to health impairment (Hogh *et al.*, 2011b), further leading to elevated levels of sickness absence (Kivimäki *et al.*, 2000) as well as an increased risk of work disability among the targets (Berthelsen *et al.*, 2011). Theoretically, health impairment outcomes may be related to quantitative job insecurity by representing a fear of not being able to return to work, and to qualitative job insecurity by hindering the targets' possibilities of developing a career within the organisation. In line with this, Hallberg and Strandmark (2006) reported that some targets of bullying perceive their career prospects as being damaged. Moreover, Jennifer *et al.* (2003) reported elevated levels of perceived threat to professional status in a sample of bullied employees.

Together, the previously mentioned theoretical reasoning and empirical findings indicate that many targets are exposed to bullying behaviours that may evoke both concerns about the permanence of their employment and concerns about important aspects of the job. Against this rationale, we propose the following hypothesis:

Hypothesis 1: Exposure to bullying behaviour at work predicts an increase in job insecurity over a 6-month time lag.

Workplace bullying and intentions to leave

A different path from workplace bullying to exclusion from work may be through turnover, that is, the target may come to experience the working conditions as so difficult, that he or she chooses to 'voluntarily' leave the job (Berthelsen *et al.*, 2011). One way of addressing this issue is to look at intention to leave among employees, which has been demonstrated as a strong antecedent to turnover (*e.g.* Bedeian *et al.*, 1991).

The hypothesised association between workplace bullying and intention to leave is supported by theoretical explanations of turnover, such as the unfolding model of turnover (Lee *et al.*, 1999; Holtom *et al.*, 2005). This model highlights the role of a triggering 'shock' in the initiation of the turnover process. Such a shock may be positive or negative, internal or external to the person, or expected or unexpected, including such events as change of marital status, a job offer or a conflict. Furthermore, the shock serves as a jarring event that causes the employee to re-evaluate his or her working conditions. If the revaluation caused by the initial shock leads the employee to identify discrepancies between previously held 'images' (such as goals or plans for goal attainment) and the current working conditions, thoughts of quitting may occur (Holtom *et al.*, 2005). As workplace bullying is evidenced by the occurrence of repeated and long-lasting negative behaviour, which is difficult to defend against (Einarsen *et al.*, 2011), the concept of a triggering shock is reasonable. In fact, even individual acts of mistreatment or incivility may be experienced as jarring, and working conditions where bullying is allowed to continue are unlikely to be compatible with the 'images' of a target.

In line with this, workplace bullying and harassment have been identified as a precursor of job dissatisfaction (Frank *et al.*, 1999), which in turn has been demonstrated as an antecedent to turnover intention (Chen *et al.*, 2011). In fact, it has been suggested that given equal levels of

job dissatisfaction, intention to leave may be more likely when job satisfaction is decreasing (Chen *et al.*, 2011), a notion that is also in line with a hypothesised association between workplace bullying and intention to leave, as job satisfaction is likely to decrease over time as bullying continues. Moreover, it is also possible that workplace bullying may trigger thoughts of escape behaviour (Zapf and Gross, 2001), leading the target to consider quitting because of the prospect of being spared from a painful situation (Hogh *et al.*, 2011a).

In accordance with these notions, a relationship between workplace bullying and intention to leave has been demonstrated within various sectors and professions (e.g. Quine, 1999; Mathisen *et al.*, 2008; Simons, 2008; Glasø *et al.*, 2011a). Moreover, data have shown that both intention to leave and voluntary turnover may be similarly affected by social stressors that are not labelled as bullying, but that often overlap with and contribute to the bullying process, such as incivility at work (e.g. Lim *et al.*, 2008; Adams and Buck, 2010), workplace mistreatment (e.g. Harlos and Axelrod, 2005), abusive supervision (Tepper, 2000) and workplace ostracism (Ferris *et al.*, 2008). The role of bullying and associated negative experiences at work as antecedents of intention to leave is thus well documented in a growing body of research.

At the same time, as noted in a meta-analysis by Bowling and Beehr (2006), there may not yet be sufficient data to conclude whether intention to leave is a consequence of, or an antecedent to, such stressors as workplace bullying. As highlighted by these authors, persons openly searching for new opportunities in the job market may put themselves at risk of harassment. This is a possibility that it may have been difficult to rule out because the vast majority of the research designs in investigations of the association between bullying/harassment and intention to leave have been cross-sectional (e.g. Quine, 1999; Djurkovic *et al.*, 2004; Harlos and Axelrod, 2005; Djurkovic *et al.*, 2008; Lim *et al.*, 2008; Mathisen *et al.*, 2008; Adams and Buck, 2010; Glasø *et al.*, 2011a,b), and therefore it cannot infer the causal direction between the investigated variables (Zapf *et al.*, 1996).

It is the purpose of this study to prospectively investigate the direction of the relationship between exposure to bullying behaviour at work and intention to leave. Against the backdrop of Leymann's (1992) claim that workplace exclusion may be an outcome of bullying, it is hypothesised that exposure to bullying behaviour will predict increased levels of intention to leave over time. Thus, the second and last hypothesis is proposed as follows:

Hypothesis 2: Exposure to bullying behaviour predicts an increase in intention to leave over a 6-month time lag.

METHOD

Participants and procedure

The data used in this study are based on a sample of 1,800 Norwegian offshore workers in the North Sea, employed in different companies and on different installations at the times of measurement and randomly selected from the membership lists of one of the two largest labour unions operating in this sector. Data were collected at two different time points, with a time lag of approximately 6 months, and the baseline measurement took place in 2005. Questionnaires were sent by post to the home address of the respondents. The questionnaires were written in Norwegian and contained instructions about the survey as well as confirmation of anonymity and voluntary participation. Respondents also received pre-stamped envelopes for returning the survey after completion. All questionnaires were coded with unique numbers by the researchers so that T1 and T2 responses could be coupled later on. Furthermore, to ensure anonymity, the identity of the respondents was replaced by these numbers before the responses

TABLE 1 Age, gender, Cronbach's alpha and variable statistics for T1 and T2

Variable	T1					T2				
	<i>n</i>	%	α	Mean	<i>SD</i>	Items	<i>n</i>	α	Mean	<i>SD</i>
Age	1004			44.57	8.92					
Gender										
Male	871	85.6								
Female	143	14.1								
Bullying (NAQ-R)	976		0.91	26.39	6.24	22	721	0.89	25.92	5.32
Job insecurity	995		0.75	16.26	4.94	7	734	0.75	15.72	4.84
Intention to leave	1003		0.83	6.15	2.96	3	734	0.84	6.11	2.97

NAQ-R, Negative Acts Questionnaire – Revised; *SD*, standard deviation.

were entered into the database. At baseline, a total of 1,017 questionnaires were returned, yielding a response rate of 59 per cent, which is above the mean for such surveys (*cf.* Baruch and Holtom, 2008). By means of the same procedure, 72 per cent of those participating at baseline returned completed questionnaires in the second wave, yielding a total participation rate of 41 per cent for both measurement times ($n = 741$).

Attrition analyses revealed that the mean score on exposure to bullying behaviour was significantly higher at T1 for participants who responded only at T1 [mean (M) = 27.34, standard deviation (SD) = 7.04] compared with those responding at both measurement times [$M = 26.04$, $SD = 5.88$; $t(404.32) = 2.68$, $p = 0.008$, two tailed], indicating that those exposed to bullying behaviour at work at T1 had a lower probability of participation at T2. A similar tendency was found for intention to leave, with respondents only participating at T1 ($M = 6.54$, $SD = 3.10$) showing higher rates of intention to leave compared with those responding at both times [$M = 6.00$, $SD = 2.89$; $t(1001) = 2.59$, $p = 0.01$, two tailed]. No such tendency was found for the job insecurity measure.

Demographics

Age ranged from 18 to 65 years, and the mean age was 44 ($SD = 8.9$). The sample consisted largely of males (86 per cent), and 21 per cent of the sample reported having a supervisory or managerial role. Age and gender statistics are displayed in Table 1. Ten per cent reported being employed at their current workplace for less than 1 year, 36 per cent for 1–5 years, 20 per cent for 6–10 years and 29 per cent for more than 10 years (missing = 4.5 per cent).

Measures

Exposure to bullying behaviour was assessed with the 22 items of the *Negative Acts Questionnaire – Revised* (NAQ-R; Einarsen *et al.*, 2009). Respondents indicated to what degree they had been exposed to these bullying behaviours at their current workplace during the past 6 months, using a five-point Likert scale ranging from '1 (never)', '2 (sometimes)', '3 (monthly)', '4 (weekly)' to '5 (daily)' for each of the acts listed (*e.g.* 'exposed to exaggerated teasing and joking; excluded from the social fellowship'). In the analyses, the NAQ-R was to be used as a continuous scale instead of operationalising workplace bullying in terms of a cut-off score, hence our use of the term 'exposure to bullying behaviour' instead of 'bullied'. A Cronbach's alpha of 0.91 and 0.89 was obtained for the NAQ-R at T1 and T2, respectively.

TABLE 2 Pearson correlations for all key variables

	a	b	c	d	e	f
a. Exposure to bullying behaviour T1	–					
b. Exposure to bullying behaviour T2	0.65**	–				
c. Job insecurity T1	0.29**	0.21**	–			
d. Job insecurity T2	0.24**	0.29**	0.61**	–		
e. Intention to leave T1	0.28**	0.22**	0.39**	0.24**	–	
f. Intention to leave T2	0.25**	0.33**	0.33**	0.36**	0.61**	–

** $p < 0.01$ (two tailed).

Job insecurity was measured using a seven-item questionnaire (Hellgren *et al.*, 1999), where each item is formulated as a statement pertaining to job insecurity. The statements were evaluated by the respondents using a five-point Likert-type scale, ranging from ‘not at all correct’ to ‘entirely correct’. The first three items measured quantitative job insecurity, relating to concerns about the continued existence of the job (*e.g.* ‘I am worried about having to leave my job before I would like to’). The last four items measured qualitative job insecurity, relating to concerns about important features of the job. These items were positively framed and were thus reversed for the purpose of the analyses (*e.g.* ‘My future career opportunities in the organisation are favourable’). In the analyses, this scale was to be used as a single, continuous measure instead of making a cut-off score between those respondents with job insecurity and those without job insecurity. Cronbach’s alpha for the scale was 0.75 at both measurement times.

Intention to leave was measured with a three-item questionnaire (Sjöberg and Sverke, 2000), each item being assessed by the respondents on a five-point Likert scale ranging from ‘fully disagree’ to ‘fully agree’. The scale measures searching for new jobs (*e.g.* ‘I am actively searching for a new job’) as well as willingness to quit given an adequate alternative (*e.g.* ‘If I had a free choice, I would quit this job’). In the analyses, this scale was to be used as a continuous measure instead of making a cut-off score between those respondents with intentions to leave and those without intentions to leave. Cronbach’s alpha for the scale was 0.83 and 0.84 at T1 and T2, respectively.

Reliability estimates and variable statistics for each measure, and correlations between the key variables of the study, are included in Tables 1 and 2, respectively.

Statistical analyses

Statistical analyses were conducted using IBM SPSS Statistics 19.0 (SPSS Inc., Chicago, IL, USA).

First, a correlation table was produced, including all key variables of the study. In addition, to determine the cross-sectional relationships between the study variables, hierarchical multiple regression analyses were used to assess whether exposure to bullying behaviour at T1 could predict job insecurity and intention to leave at T1 when controlling for age and gender. Then, to test the hypotheses of the study, cross-lagged hierarchical multiple regression was used to assess whether exposure to bullying behaviour in the past 6 months (T1) could predict levels of job insecurity (T2) and intention to leave (T2), respectively, after controlling for T1 levels of the dependent variable as well as age and gender. Preliminary analyses confirmed that the assumptions of normality, linearity, multicollinearity and homoscedasticity were not violated.

Also, both hypotheses were tested in the reverse order using the same statistical procedure, to ensure that the hypothesised normal causation held true, ruling out possibilities of a reversed causation or a reciprocal causation indicative of a vicious circle of events.

The level of significance was set to 0.05 for all statistical analyses.

RESULTS

The results of the Pearson product-moment correlation revealed a moderate, positive correlation between exposure to bullying behaviours at T1 and job insecurity at T2, $r = 0.24$, $n = 710$, $p < 0.01$. Furthermore, a moderate, positive correlation was revealed for the relationship between exposure to bullying behaviours at T1 and intention to leave at T2, $r = 0.25$, $n = 710$, $p < 0.01$. The results of the cross-sectional regression analyses revealed that when controlling for age and gender, workplace bullying significantly predicted both job insecurity [R-squared change = 0.087, F change (1, 957) = 32.05, $p < 0.05$] and intention to leave [R-squared change = 0.072, F change (1, 963) = 32.66, $p < 0.05$]. Together, the results of the correlation analyses as well as the cross-sectional regression analyses indicate that exposure to bullying behaviour is associated with both outcomes of the study.

Hypothesis 1, stating that exposure to bullying behaviour at T1 predicts increased job insecurity at T2, was investigated using hierarchical multiple regression analysis. Control variables of job insecurity (T1), age and gender were entered in step 1, and exposure to bullying behaviour (T1) was entered in step 2. The variance explained by the final model was 38.3 per cent, [F (4, 705) = 109.4, $p < 0.05$], and exposure to bullying behaviour significantly contributed to the changes in job insecurity, R-squared change = 0.005, F change (1, 705) = 5.4, $p < 0.05$. These results are presented in further detail in Table 3.

Hypothesis 2 stated that exposure to bullying behaviour at T1 predicts increased intention to leave at T2. Again, control variables of intention to leave (T1), age and gender were entered in step 1 of the hierarchical multiple regression analysis, and exposure to bullying behaviour (T1) was entered in step 2. The variance explained by the final model was 40.6 per cent, [F (4, 705) = 120.41, $p < 0.05$], and exposure to bullying behaviour (T1) significantly contributed to the changes in intention to leave, R-squared change = 0.006, F change (1, 705) = 7.67, $p < 0.05$. These results are presented in further detail in Table 3.

Additional analyses revealed that both possible reversed relationships were non-significant ($p > 0.05$). In summary, there appears to be clear cross-sectional associations between workplace bullying and the outcomes of the study, as indicated by correlational and regression analyses. Moreover, in support of both hypotheses, exposure to bullying behaviour (T1) predicts increased levels of job insecurity and intention to leave the job 6 months later (T2). These findings are held as indicative of longevity in the negative effects of bullying, both on the target and on the organisation. The results are seen as partly, albeit indirectly, supporting the claim that workplace bullying leads to exclusion from work, be it from one's particular job situation or, more dramatically, from working life itself (Leymann, 1992, 1996; Berthelsen *et al.*, 2011).

DISCUSSION

Drawing on the notion that workplace bullying may be a precursor of exclusion from working life, the present study aimed to investigate how exposure to bullying behaviour relates to subsequent increases in job insecurity on the one hand and intentions to leave the job on the other hand. In line with the hypotheses, the results of regression analyses showed that exposure to bullying behaviour is associated with elevated levels of both job insecurity and with one's

TABLE 3 Hierarchical regression analyses for Hypothesis 1 and Hypothesis 2

Model		Hypothesis 1 ^a			Hypothesis 2 ^b		
		B	SE	β	B	SE	β
1	(Constant)	5.007	0.986		5.454	0.591	
	Age	0.002	0.016	0.004	-0.051	0.01	-0.152**
	Gender	0.827	0.413	0.06*	-0.634	0.25	-0.074*
	Job insecurity T1	0.596	0.029	0.608**			
	Intention to leave T1				0.59	0.03	0.588**
2	(Constant)	3.7	1.133		4.495	0.682	
	Age	0.005	0.016	0.008	-0.05	0.01	-0.149**
	Gender	0.875	0.412	0.063*	-0.633	0.249	-0.074*
	Job insecurity T1	0.575	0.030	0.587**			
	Intention to leave T1				0.567	0.031	0.565**
	Exposure to bullying T1	0.056	0.024	0.072*	0.04	0.014	0.084**

* $p < 0.05$, ** $p < 0.01$.

^a Hierarchical multiple regression analysis predicting job insecurity at T2. Note. $R^2 = 0.378$ for model 1, $R^2 = 0.383$ for model 2. $\Delta R^2 = 0.378$ for model 1, $\Delta R^2 = 0.005$ for model 2.

^b Hierarchical multiple regression analysis predicting intention to leave at T2. Note. $R^2 = 0.399$ for model 1, $R^2 = 0.406$ for model 2. $\Delta R^2 = 0.399$ for model 1, $\Delta R^2 = 0.006$ for model 2.

SE, Standard error.

intention to leave the job 6 months later. Because T1 levels of the outcome measures were statistically controlled for, in addition to the fact that no reverse causation was found, it can be assumed that exposure to bullying behaviour is the antecedent factor in both relationships. Together, the findings indicate that targets of workplace bullying are increasingly afraid for their job and work situation, and that, over time, they consider leaving to a greater degree than non-targets. To the best of our knowledge, it has not previously been demonstrated that workplace bullying is associated with increased job insecurity over time, even though many have acknowledged that targets of bullying are at risk of workplace exclusion (e.g. Leymann, 1996; Lutgen-Sandvik, 2003; Berthelsen *et al.*, 2011). Considering the range of possible threats to their professional future, it nevertheless seems reasonable that job insecurity is greater among those exposed to bullying behaviour. For instance, the detrimental health effects of bullying are well established in the literature (Hansen *et al.*, 2006; Hogh *et al.*, 2011b), and frequent and long-term absence may reasonably hinder the ability of a target to fully pursue his or her ambitions within the organisation. Moreover, some targets are internally relocated or threatened with unwanted relocation, or even discharge (Leymann, 1990; Salin, 2003), further increasing insecurities about their future as employees. In addition, many targets experience that rumours are spread about them to the effect that their professional reputation is damaged (Lutgen-Sandvik, 2008), possibly making it harder for them to find new work at a later date, or at least evoking that concern. As powerlessness to resist any perceived threats to the job is essential to the feeling of job insecurity in the same way as powerlessness to resist the negative behaviour is key to the feeling of being bullied, the present findings also seem theoretically reasonable. In sum, although workplace bullying has not previously been prospectively

investigated as an antecedent to job insecurity, the literature does show that bullying behaviour may be associated with threats to desired continuity in the job (*i.e.* job insecurity).

The finding concerning intention to leave as another outcome of exposure to bullying behaviour is supported by previous findings. For instance, in a study of 1,100 health service employees in England, Quine (1999) showed that exposure to bullying during the preceding year was associated with significantly higher rates of intention to leave. Strong cross-sectional associations between bullying and intentions to leave were also demonstrated within the Norwegian restaurant sector (Mathisen *et al.*, 2008). However, the current study has the benefit of being able to suggest a causal direction between bullying and intention to leave by using prospective data, which has been repeatedly called for in the literature (*e.g.* Djurkovic *et al.*, 2004, 2008; Bowling and Beehr, 2006; Mathisen *et al.*, 2008; Hauge *et al.*, 2010; Glasø *et al.*, 2011b). By supporting Hypothesis 2, the present study can thus be regarded as an important contribution to the literature because of the applied prospective design. The finding underscores the assumption that exposure to bullying behaviour will tend to bring about thoughts of escape behaviour (Zapf and Gross, 2001), a notion that is meaningful in light of the negative and intrusive nature of such experiences. Moreover, it aligns with theoretical notions stating that an event perceived as a 'shock' by the employee is likely to lead him/her to psychologically analyse important circumstances at work and compare them to the standards or 'images' they hold, possibly leading to thoughts of quitting if a significant discrepancy exists between these images and the actual situation (Lee *et al.*, 1999; Holtom *et al.*, 2005). As bullying behaviour in itself may constitute such a 'shock', even claimed to be traumatic for those exposed (*e.g.* Leymann and Gustafsson, 1996), it is reasonable to assume that the 'images' of the target may be violated, thus increasing intentions to leave the job.

Although the results of the present study are statistically significant, the impact of bullying on job insecurity and intention to leave across the 6-month time lag may seem modest with less than 1 per cent of the variance explained for each outcome. However, one should not underestimate the magnitude of the results. First, when controlling for T1 levels of the outcome in the analyses, the relative stability of this measure is removed, together with the impact of age and gender. Thus, the variance explained by workplace bullying is only variance that *adds* to the impact of the control measures over time. In comparison, the cross-sectional analyses showed that workplace bullying (T1) explains 8.7 per cent and 7.2 per cent of the variance in job insecurity (T1) and intention to leave (T1), respectively. This finding thus better demonstrates the strength of the associations, while the cross-lagged analyses indicate that workplace bullying is the antecedent factor in both relationships. Second, it should be pointed out that workplace bullying is a low-frequent phenomenon, hence not expected to explain much variance in any outcome when using a representative sample. Researchers have already identified a number of other antecedents to both of the outcomes investigated in the present article. For instance, organisational downsizing is associated with higher levels of job insecurity (Klandermans and van Vuuren, 1999) and so is temporary employment and previous unemployment experiences (Kinnunen and Nätti, 1994). Similarly, factors such as low job satisfaction (Hellman, 1997), work engagement and job embeddedness (Halbesleben and Wheeler, 2008) may lead to elevated levels of intention to leave. The finding that bullying nevertheless significantly adds to the explained variance in both outcomes should therefore be seen as an indicator of the severe impact of this stressor for those affected.

Practical implications

The present findings underline the importance of proper handling of workplace bullying, and they have important practical implications for HR initiatives in organisations where employees

are targeted by bullying behaviour. First, HR professionals may need to restore job security among targets of bullying. As suggested by the present study, important features of the target's job may have been compromised during the bullying process. Thus, HR professionals should, for instance, ensure that no unwanted and illegitimate relocation or alteration of work tasks has occurred and that career opportunities such as potential promotion have not been missed because of health impairment. Moreover, targets should not have to fear for the permanence of their job, and they should be thoroughly reassured that their job is not threatened. Also, the finding that bullying leads to job insecurity may indicate that bullying behaviour is being used as a tactic to pressure employees out of their job. This is in line with Salin (2003), who states that the occurrence of bullying may partly be understood as goal-directed behaviour aimed at increasing beneficial outcomes for oneself. For instance, a supervisor that is rewarded for good results may use bullying behaviour as a tactic for getting rid of low-performing team members. Previous research has also shown that targets of bullying believe competition to be a major cause of bullying at work (Vartia, 1996). This further strengthens the notion that bullying may be used strategically for personal gain, a possibility that should be taken into account when potential bullying incidences are addressed. Second, HR professionals should be aware that targeted employees at any time during or following a bullying process may contemplate leaving the job. Although their right to do so should be respected, the issue should be directly addressed as part of the dialogue with targets of bullying. This may prevent unnecessary turnover, saving the costs associated with turnover for the organisation and relieving the target of the frustration and feeling of defeat from quitting the job for the wrong reasons.

Strengths and limitations

There are several strengths to be noted in the current study. First, the sample used is a large, random sample representative of Norwegian North Sea workers. This strengthens the robustness of the findings, as well as their generalisability. The results may be especially generalisable to employees working long-interval shift work similar to that of the North Sea employees, such as sea vessel crew, military employees, oil rig employees and aircrew. In addition, the use of a sample not distributed over different industries may have strengthened the reliability of the results by holding industry-level factors constant. Second, the use of two measurement points allows for better assumptions about the directionality of the observed associations (Zapf *et al.*, 1996). This kind of methodology is largely called for in organisational research and particularly in the literature concerning bullying/harassment and intention to leave (e.g. Djurkovic *et al.*, 2004, 2008; Bowling and Beehr, 2006; Mathisen *et al.*, 2008; Hauge *et al.*, 2010; Glasø *et al.*, 2011b). This is also, to best of our knowledge, the first study to address bullying as a potential antecedent to job insecurity. Providing cross-lagged data on this relationship may thus be considered an important contribution to the literature.

Despite these strengths, there are also limitations to the study that need to be addressed. First, regarding intention to leave, the study does not provide information about whether targets actually leave the job. Thus, although intention to leave may relate to actual turnover as well as being a noteworthy parameter of organisational satisfaction in its own right, the intuitive question of whether the participants in the current study actually left as a result of their intention to do so remains unidentified. However, an earlier study employing a representative sample of the Norwegian workforce showed that targets of bullying with increased intentions to leave had actually changed employer two years later (Berthelsen *et al.*, 2011).

Second, although the cross-lagged design allows for investigations of directionality in the observed associations, it is difficult to determine whether the time lag of 6 months is the only

appropriate interval for investigating these possible outcomes of bullying. Bullying is often a long-lasting and gradually escalating process (Einarsen *et al.*, 2011). Developing significant concerns about the continuity of one's job or intention to leave may also be a gradual process. For the purpose of this study, the chosen time lag is regarded as suitable, particularly because we did not want to miss potential respondents because of actual turnover or exclusion before the second measurement. However, designs looking at longer time intervals should also be conducted to see if the relationships investigated here become stronger over a longer period of time. In addition, more frequent data collection could be of interest to investigate how the pattern of associations develops.

Third, there is a chance that the particular working conditions in the North Sea may have affected the responses. On the one hand, employees are typically working shifts of 2–3 weeks, followed by several weeks off, and the isolation of the workers in the closed environments of the vessels may affect how employees react to bullying behaviour, for example, by preventing their opportunity to escape the situation. On the other hand, the intervals of several weeks off may delay the escalation of the bullying process, in which case the results of this study may actually be an underestimation of the true association between the investigated phenomena. This notion further underscores the need for future research efforts on the topic, preferably within somewhat different populations.

Finally, the study exclusively applies self-report measures, potentially involving problems of common-method variance, consistency motifs and social desirability (Podsakoff and Organ, 1986). These are biases that may influence participants to respond in an overly consistent manner, or in a manner as to present themselves in a positive light, rather than being as objective as possible. These types of response biases may be of relevance in the current study because all variables are measured from the same source. However, they may also be limited by the fact that a time lag is used (Podsakoff *et al.*, 2003) and that the outcome measure at baseline is statistically controlled for in the analyses.

CONCLUSION

The present study has demonstrated that exposure to workplace bullying behaviour may lead to elevated levels of job insecurity as well as intention to leave the organisation. The first of these findings appears to be absent in the literature and provides yet a demonstration of the harmful effects of workplace bullying as well as a somewhat novel insight into the antecedents of job insecurity. The finding concerning intention to leave strengthens previous notions, adding to the literature by implying a causal association between bullying and turnover intentions on the basis of prospective data. Overall, the findings are held as indicative of a tendency for victims of bullying to be at risk of some forms of workplace exclusion, in line with the claim of Leymann (1992, 1996). The study adds to the knowledge about how the individual as well as the organisation may suffer as a result of bullying and underscores the importance of adequate prevention and management of bullying at work.

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