

## Personality and Social Sciences

### The relative impact of workplace bullying as a social stressor at work

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Exposure to workplace bullying has been argued to be a severe social stressor and a more crippling and devastating problem for affected individuals than the effects of all other work-related stressors put together. However, few studies have explicitly investigated this assumption. In a representative sample of the Norwegian working population, the present study investigated the relative contribution of workplace bullying as a predictor of individual and organizational related outcomes after controlling for the well-documented job stressors of job demands, decision authority, role ambiguity and role conflict. Bullying was found to be a significant predictor of all the outcomes included, showing a substantial relative contribution in relation to anxiety and depression, while for job satisfaction, turnover intention and absenteeism, more modest relative contributions were identified. Workplace bullying is indeed a potent social stressor with consequences similar to, or even more severe than, the effects of other stressors frequently encountered within organizations. Thus, the finding that bullying has a considerable effect on exposed individuals also when controlling for the effects of other job stressors demonstrates bullying as a serious problem at workplaces that needs to be actively prevented and managed in its own right.

**Key words:** Bullying, harassment, job stress, anxiety, depression.

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#### INTRODUCTION

Consequences of occupational stress have over the years been well documented with numerous studies demonstrating the effects of stressful work environments for both individual well-being and organizational effectiveness (Jex & Beehr, 1991). While characteristics of the job such as job demands and autonomy have frequently been studied, less attention has been devoted to the likely devastating effects of negative and destructive social interaction among individuals at work. Although researchers for some time have acknowledged the importance of investigating the effects of social interaction among individuals in job stress studies (cf. Beehr, 1995), relatively few studies have explicitly investigated the impact of such interaction as a social stressor at work. One such kind of social stressor is workplace bullying, where a targeted individual is systematically and repeatedly exposed to aggressive behavior from other organizational members (Einarsen, Hoel, Zapf & Cooper, 2003). Exposure to workplace bullying has been shown to have severe consequences for both individuals and organizations, and even been argued to be a more crippling and devastating problem for affected individuals than the effects of all other work-related stressors put together (cf. Adams, 1992; Wilson, 1991). However, the relative effect of workplace bullying as compared to other frequently encountered job stressors has not been well documented. Thus, the present study aims to explicitly investigate the importance of workplace bullying in relation to individual and organizational related outcomes, controlling for the effects of other frequently studied job stressors, namely job demands, decision authority, role ambiguity and role conflict.

Investigations of occupational stress usually involve studying relationships between stressful aspects of jobs and subsequent results of such stressor exposure within a traditional stressor-strain framework (Jex & Beehr, 1991). Most theories of job stress (e.g.,

Karasek & Theorell, 1990) hold that employees exposed to stressful working conditions will perceive some level of distress that will, if not adequately coped with, result in psychological (e.g., anxiety), physical (e.g., somatic symptoms) or behavioral strain (e.g., aggression) as outcomes of this stress process. Consequences of job stress may manifest itself individually with regard to impaired well-being among employees, but may also affect the organization as a whole through increased turnover rates and reduced organizational profitability (Jex & Beehr, 1991).

Potential sources of job-related strain are found in every organizational setting and may be rooted in both intrinsic job characteristics (e.g., workload and amount of control) as well as in organizational roles (e.g., role expectations and role demands). However, causes of strain may also be of a more interpersonal nature in the form of how individuals interact at work (Cooper, Dewe & O'Driscoll, 2001). While consequences of job demands, control at work and role stressors have frequently been studied (cf. Kahn & Byosiére, 1992; Örtqvist & Wincent, 2006), less attention has been devoted to the likely negative consequences of destructive interaction among individuals at work. When interpersonal interaction is investigated in occupational research, social support is often studied and normally treated as a moderator between stressors and subsequent strain. However, exposure to non-supportive or destructive interaction is likely to be a potent social stressor in itself and have as severe consequences as those of other more frequently studied job stressors (Beehr, 1995; Keashly, Hunter & Harvey, 1997).

During the last couple of decades, one particular kind of social stressor has gained increased interest among researchers, namely exposure to long lasting aggressive behavior from other organizational members (Einarsen *et al.*, 2003). Although exposure to such behavior appears under many different labels such as harassment (e.g., Brodsky, 1976), bullying (e.g., Einarsen *et al.*, 2003),

mobbing (e.g., Leymann, 1996), emotional abuse (e.g., Keashly & Harvey, 2005) and victimization (e.g., Aquino & Thau, 2009), they all seem to refer to the same overall phenomenon, namely systematic and prolonged mistreatment of an organizational member, which over time may result in severe social, psychological and psychosomatic problems for affected individuals (see, e.g., Einarsen & Mikkelsen, 2003 for an overview). While non-supportive and negative behavior may be experienced by most organizational members from time to time, such acts and conducts are likely to have severe consequences for individual health and well-being when experienced frequently and systematically over time (Leymann, 1996).

In the present study, the label “workplace bullying” will be applied to refer to the phenomenon where an employee faces repeated and prolonged exposure to various forms of predominantly psychological mistreatment. Such mistreatment is directed towards a target who is typically teased, badgered and insulted, and who perceives himself or herself as not having the possibilities or resources to retaliate in kind (Einarsen *et al.*, 2003). This implies an actual or perceived power imbalance between the parties involved where an individual gradually ends up in an inferior position and becomes a target of systematic negative social acts (Brodsky, 1976). Be it carried out deliberately or unintentionally, workplace bullying may be understood as a gradually evolving process where targets in the early phases are exposed to subtle and often disguised forms of mistreatment, whereas later on, more direct and aggressive behavior may appear (Einarsen, 1999; Zapf & Gross, 2001). Bullying can take the form of direct actions such as verbal abuse, accusations and public humiliation, but can also be of a more subtle and disguised nature in the form of gossiping, rumor spreading and social exclusion (Einarsen *et al.*, 2003). However, when experienced frequently, even such subtle behaviors may be experienced as an extreme source of social stress at work (Zapf, 1999). Contrary to most other stressors experienced at work, workplace bullying is systematically and persistently directed towards a targeted individual. If traditional stressors are present in the work environment (e.g., heavy workloads and time pressure) one can assume most individuals to be affected after some time. Bullying, however, may result in severe stress reactions for the individual exposed to such behavior while others in the work environment may not be affected at all (Einarsen *et al.*, 2003).

Regardless of its causes, an occupational stressor is by definition any antecedent condition that requires some kind of adaptive response on the part of the individual for it not to result in subsequent strain (Jex & Beehr, 1991). Strain may occur when perceived demands or constraints exceed the individuals’ resources or capabilities to meet these demands (cf., Lazarus & Folkman, 1984). For instance, being exposed to heavy workloads and tight deadlines may cause uncertainty regarding one’s abilities to fulfill job demands and thus be related to strain, especially if one perceives not to have the necessary control to meet such demands (cf. Karasek, 1979).

While control at work has generally been found to be related to high levels of satisfaction and low levels of experienced job stress (cf. Hackman & Oldham, 1980; Spector, 1986), being exposed to workplace bullying is by definition characterized by gradually being deprived of control and possibilities to cope with matters

concerning oneself at work (Leymann, 1990; Zapf & Einarsen, 2005). The negative relationship between bullying and control is expected to become even more salient for affected individuals with intensified and persistent exposure, and thus to evoke stronger stress reactions as the bullying exposure unfolds (Brodsky, 1976).

Moreover, expectations and demands associated with an individual’s job roles may also cause strain for individuals. In the case of role ambiguity, performing the job satisfactorily is made difficult because the individual lacks information about how to do one’s job. Individuals may also experience conflicting expectations and demands from role senders, leading to the individual experiencing role conflict with likely consequences for subsequent strain (Beehr, 1995; Jex & Beehr, 1991). Indeed, several meta-analytical studies have shown evidence for stressors such as high job demands, low perceived control and role stressors being systematically associated with outcomes such as anxiety, depression, job dissatisfaction, intention to leave the job and absenteeism (e.g., Örtqvist & Wincent, 2006; Spector, 1986; Spector & Jex, 1998). Moreover, previous research has also demonstrated workplace bullying to be systematically related to both intrinsic job characteristics and role stressors, indicating a high level of job stress in workplaces where bullying is prevalent (e.g., Agervold & Mikkelsen, 2004; Einarsen, Raknes & Matthiesen, 1994).

As argued above, workplace bullying is an extreme type of social stressor where aggressive behavior is systematically and persistently aimed at a targeted individual (Zapf, 1999). Unlike exposure to other stressors encountered at work, which may reflect a negative job feature that is experienced by most organizational members, the aggressive behavior experienced by targets of bullying is likely to thwart the satisfaction of fundamental psychological and relational needs (e.g., sense of belonging and trust in others) and inflict severe psychological, emotional, and even physical pain upon exposed individuals (Aquino & Thau, 2009; Baumeister & Leary, 1995). The persistent exposure to such behavior also seems to drain the individual of coping resources, gradually making the individual less able to cope with daily work tasks and the requirements of the job (Leymann, 1990). The uncertainty caused by exposure to such working conditions will thus be related to strain for affected individuals, and studies have indeed shown targets of bullying to generally portray a high level of stress symptoms. For instance, Einarsen, Matthiesen and Skogstad (1998) found targets of bullying to report higher levels of burnout and lower levels of job satisfaction and psychological well-being as compared to non-targets, and similarly, Agervold and Mikkelsen (2004) found employees exposed to bullying to report more mental fatigue, psychological stress and psychosomatic symptoms as compared to their non-exposed colleagues. Moreover, Vartia (2001) showed that not only bullied employees, but also observers of such behavior, reported higher levels of general stress and mental stress reactions than did non-bullied employees.

Although targets of bullying generally report higher levels of strain than do non-targets, few studies have explicitly investigated the relative strength of workplace bullying as a predictor of strain. As stressors at work are not likely to be experienced in isolation and separately, but are more likely to act simultaneously as predictors of strain (Cooper *et al.*, 2001), multivariate designs will

provide the most reliable estimates of various job stressors' relative importance in relation to experienced strain. Among the few studies applying a multivariate design, Keashly and colleagues (1997) investigated the effects of abusive interaction after controlling for the role stressors role ambiguity, role conflict and role overload, and found that the impact of such interaction accounted for variation in tension, job satisfaction and turnover intention, above that accounted for by the role stressors. Similar findings were also reported in a meta-analysis by Bowling and Beehr (2006) who found workplace harassment to predict incremental variance in burnout, physical symptoms, job satisfaction, organizational commitment and turnover intention after controlling for the effects of role ambiguity and role conflict. However, except controlling for the effects of role stressors, limited knowledge has so far been presented demonstrating the relative impact of workplace bullying as a predictor of strain.

Thus, the aim of the present study is to explicitly investigate the often-made claim of workplace bullying being a severe social stressor and a more crippling and devastating problem for affected individuals than the effects of all other work-related stressors put together (cf. Adams, 1992; Wilson, 1991). Based on the theoretical reasoning and empirical findings outlined above, the following hypothesis will be investigated:

Workplace bullying is a potent social stressor and will account for variation in anxiety, depression, job satisfaction, turnover intention, and absenteeism beyond what is accounted for by job demands, decision authority, role ambiguity and role conflict.

## METHOD

### Sample

The present study is based on a representative sample of the Norwegian work force drawn from the Norwegian Central Employee Register by Statistics Norway (SSB). The Norwegian Central Employee Register is the official register of all Norwegian employees, as reported by employers. Data was collected through anonymous self-reporting questionnaires during the spring of 2005. Questionnaires were randomly distributed by mail to 4,500 employees, with a total of 2,539 questionnaires returned, yielding a response rate of 56.4 per cent. Respondents were asked to indicate their current job status at the time of the data collection, and the analyzed sample consists of 2,242 respondents employed in full or part-time positions (e.g., employees currently unemployed or self-employed workers without employees were asked to complete only the demographics section). The analyzed sample consisted of 50.4% women and 49.6% men. Mean age was 44 years with ages ranging from 19 to 66 years. Except for women being slightly overrepresented, the analyzed sample may be considered representative for the Norwegian working population (cf. Høstmark & Lagerstrøm, 2006). To address the current study hypothesis, the present study applied the same data as previously employed by Hauge, Skogstad and Einarsen (2007) and Skogstad, Einarsen, Torsheim, Aasland and Hetland (2007).

### Measures

Job demands and decision authority were measured by 10 items from the scale of van Veldhoven and Meijman (1994). Job demands consisted of four items aimed at capturing pace of work (e.g., "Do you have to work

very fast?"), "Do you have to work extra hard to accomplish your work tasks?"), while decision authority consisted of six items concerning control over decisions at work (e.g., "Can you freely decide how to perform your work tasks?", "Can you take part in decisions affecting your work?"). Response categories for both scales were "never", "sometimes", "quite often", and "very often/nearly always".

Role ambiguity and role conflict were measured using the scales of Rizzo, House and Lirtzman (1970). Role ambiguity consisted of six items formulated as role clarity and reverse scored for the analyses, measuring the existence or clarity of behavioral requirements at work (e.g., "I know exactly what is expected of me", "I know exactly what my responsibilities are"). Role conflict consisted of eight items (e.g., "I receive incompatible requests from two or more people", "I have to do things that should be done differently") measuring incongruence or incompatibility in the requirements of one's work role. Both role stressor scales were measured with seven response categories ranging from "very false" to "very true".

Exposure to workplace bullying was measured by a nine-item short version of the Negative Acts Questionnaire (Einarsen, Hoel & Notelaers, 2009; Notelaers & Einarsen, 2008). The nine items describe different kinds of behavior which may be perceived as bullying if they occur on a regular basis. The short version consists of three items each concerning social isolation, work-related and person-related bullying, respectively. All items are formulated in behavioral terms, with no reference to the term bullying. For each item, respondents were asked to rate how often they had been exposed to that specific behavior at their present workplace during the last six months (e.g., "Been ignored or excluded from work group activities", "Been exposed to persistent critique of your work or work-effort"). The five response categories applied were "never", "now and then", "monthly", "every week" and "daily".

Anxiety and depression were measured by the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth & Covi, 1974) where respondents were asked to rate how seriously affected they are by various symptoms. Anxiety consisted of seven items (e.g., "Feeling fearful", "Feeling tense or keyed up") while depression consisted of eleven items (e.g., "Feeling lonely", "Feeling hopeless about the future"). Both scales were measured with the four response categories "not at all", "a little bit", "quite a bit" and "extremely".

Job satisfaction was measured by four items from the scale of Brayfield and Rothe (1951). Examples of items are "I feel fairly well satisfied with my present job" and "I find real enjoyment in my work". Five response categories ranging from "strongly disagree" to "strongly agree" were applied.

Turnover intention and absenteeism were both measured by single items. Turnover intention ("It is likely that I will apply for a different job within the next year") was measured with five response categories ranging from "strongly disagree" to "strongly agree", while for absenteeism, respondents were asked to rate how many days they had been absent from work due to work-related stress during the last year.

### Statistical analyses and procedure

Statistical analyses were conducted using structural equation modeling in LISREL 8.80 (Jöreskog & Sörbom, 1996). Covariance and asymptotic variance-covariance matrices were analyzed to correct for non-normality in data by means of robust maximum likelihood estimation. Missing data was handled by the multiple imputation option (MI) in PRELIS 2.80 (Jöreskog & Sörbom, 1999) by imputing 10 datasets for subsequent simultaneous estimation (see e.g., Graham, 2009 for a discussion on the use of MI). To assess the appropriateness of the measurement instruments and to obtain correlations corrected for random measurement error, a measurement model was fitted to data. Cronbach's alpha coefficients to assess scale reliability were calculated based on manifest variables as presented in Table 1. To investigate the incremental contribution of workplace bullying in addition to the four other job stressors included in the study, two regression models were fitted to data for each of the five outcome measures. In the first model, structural regressions of job demands, decision authority, role ambiguity and role conflict on the outcome

Table 1. Descriptive statistics and correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Job Demands	2.44	0.58	<b>(0.86)</b>									
2. Decision Authority	2.72	0.61	−0.10	<b>(0.84)</b>								
3. Role Ambiguity	2.15	0.91	0.08	−0.27	<b>(0.85)</b>							
4. Role Conflict	3.10	1.28	0.35	−0.22	0.41	<b>(0.82)</b>						
5. Workplace Bullying	1.22	0.32	0.24	−0.23	0.29	0.47	<b>(0.81)</b>					
6. Anxiety	1.26	0.35	0.15	−0.19	0.22	0.27	0.36	<b>(0.81)</b>				
7. Depression	1.36	0.41	0.16	−0.25	0.25	0.31	0.45	0.77	<b>(0.87)</b>			
8. Job Satisfaction	4.12	0.71	−0.14	0.48	−0.36	−0.35	−0.37	−0.30	−0.37	<b>(0.86)</b>		
9. Turnover Intention	2.06	1.41	0.13	−0.23	0.26	0.28	0.27	0.22	0.28	−0.41	–	
10. Absenteeism	2.56	8.05	0.09	−0.16	0.08	0.09	0.18	0.18	0.22	−0.21	0.15	–

Notes: Cronbach's alpha coefficients are presented on the diagonal in parentheses.

Correlations are significant at the  $p < 0.01$  level ( $t \pm 2.58$ ).

measures were estimated, allowing the covariances between the job stressors to correlate while treating workplace bullying as an orthogonal factor. In the second model, the additional structural regression of workplace bullying on the outcomes was estimated, also allowing the covariances between workplace bullying and the job stressors to correlate. Unless stated otherwise, analyzed relationships are significant around the critical value of  $t \pm 2.58$  ( $p < 0.01$ ). To assess overall model fit, several commonly used fit indices were applied (cf. Bentler, 1990; Jöreskog, 1993; Steiger, 1990): the root mean square error of approximation (RMSEA), the comparative fit index (CFI) and the non-normed fit index (NNFI).

## RESULTS

To obtain correlations between the measurement instruments and to establish the factor structure for the latent variables, a measurement model was estimated, showing acceptable fit to data ( $\chi^2$  5564; df 1496; RMSEA 0.035; CFI 0.973; NNFI 0.972). As shown in Table 1, all measurement instruments included in the study had satisfactory internal reliability with alpha coefficients equal to or higher than 0.81. All job stressors and workplace bullying correlated significantly with the five outcome measures in the expected directions, although rather weakly with absenteeism. Bullying was found to correlate somewhat more strongly with anxiety and depression as compared to the other job stressors, while decision authority correlated most strongly with job satisfaction. Job demands showed generally weaker correlations with the outcome measures than did the other job stressors.

Structural regression analyses were performed in order to investigate the relative strength of job demands, decision authority, role ambiguity, role conflict and workplace bullying as predictors of the outcome measures anxiety, depression, job satisfaction, turnover intention, and absenteeism (Table 2). In order to explicitly investigate the importance of bullying, two models were fitted to data to, first, investigate the strength and amount of explained variance ( $R^2$ ) of the job stressors and, second, to investigate the added explained variance ( $\Delta R^2$ ) and strength of bullying, controlling for the effects of the other four job stressors.

For anxiety, the results showed the job stressors to account for 10 per cent of the variance ( $\chi^2$  3996; df 730; RMSEA 0.045; CFI 0.956; NNFI 0.953). Role conflict ( $\beta$  0.18) showed a relatively strong contribution, while decision authority ( $\beta$  −0.11), role ambiguity ( $\beta$  0.11) and job demands ( $\beta$  0.07) showed more modest contributions. Adding workplace bullying to the model increased the amount of explained variance to 16% ( $\chi^2$  3625; df 725; RMSEA 0.042; CFI 0.961; NNFI 0.958). Bullying ( $\beta$  0.27) showed a strong contribution after controlling for the job stressors. Decision authority ( $\beta$  −0.08), role ambiguity ( $\beta$  0.08) and role conflict ( $\beta$  0.08) still showed significant contributions, while job demands no longer contributed significantly when adding workplace bullying to the model.

Table 2. Results of structural regression analyses of job stressors and workplace bullying on outcome variables

	Anxiety			Depression			Job Satisfaction			Turnover Intention			Absenteeism		
	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$
<i>Model 1</i>		0.10			0.14			0.31			0.13			0.04	
Job Demands	0.07			0.07			−0.04 <sup>ns</sup>			0.07			0.07		
Decision Authority	−0.11			−0.17			0.38			−0.15			−0.15		
Role Ambiguity	0.11			0.12			−0.18			0.15			0.02 <sup>ns</sup>		
Role Conflict	0.18			0.19			−0.18			0.17			0.03 <sup>ns</sup>		
<i>Model 2</i>		0.16	0.06		0.24	0.10		0.34	0.03		0.14	0.01		0.05	0.01
Job Demands	0.04 <sup>ns</sup>			0.04 <sup>ns</sup>			−0.02 <sup>ns</sup>			0.05 <sup>ns</sup>			0.05 <sup>ns</sup>		
Decision Authority	−0.08			−0.12			0.36			−0.14			−0.13		
Role Ambiguity	0.08			0.09			−0.16			0.13			0.01 <sup>ns</sup>		
Role Conflict	0.08			0.06 <sup>ns</sup>			−0.11			0.12			0.02 <sup>ns</sup>		
Workplace Bullying	0.27			0.36			−0.19			0.13			0.14		

Note: Except where stated otherwise, structural regressions are significant at the  $p < 0.01$  level ( $t \pm 2.58$ ); <sup>ns</sup> = non-significant.



For depression, role conflict ( $\beta$  0.19), decision authority ( $\beta$  -0.17), role ambiguity ( $\beta$  0.12) and job demands ( $\beta$  0.07) all showed significant contributions and accounted for 14% of the variance ( $\chi^2$  4304; df 892; RMSEA 0.041; CFI 0.964; NNFI 0.962). Adding workplace bullying to the model increased the amount of explained variance to 24% ( $\chi^2$  3899; df 887; RMSEA 0.039; CFI 0.968; NNFI 0.966). Bullying ( $\beta$  0.36) showed a substantial contribution, while only decision authority ( $\beta$  -0.12) and role ambiguity ( $\beta$  0.09) still contributed significantly.

For job satisfaction, decision authority ( $\beta$  0.38) showed a strong contribution, while role conflict ( $\beta$  -0.18) and role ambiguity ( $\beta$  -0.18) also showed relatively strong contributions. Job demands did not show any significant contribution. Together the job stressors explained 31% of the variance in job satisfaction ( $\chi^2$  3787; df 619; RMSEA 0.048; CFI 0.960; NNFI 0.957). Adding workplace bullying to the model increased the amount of explained variance to 34%, with decision authority ( $\beta$  0.36) still showing a strong contribution. Bullying ( $\beta$  -0.19) and role ambiguity ( $\beta$  -0.16) showed relatively strong contributions, while role conflict ( $\beta$  -0.11) showed a somewhat weaker contribution ( $\chi^2$  3415; df 614; RMSEA 0.045; CFI 0.964; NNFI 0.961).

For turnover intention, all job stressors contributed significantly, accounting for 13% of the variance ( $\chi^2$  3379; df 518; RMSEA 0.050; CFI 0.954; NNFI 0.951). Role conflict ( $\beta$  0.17), role ambiguity ( $\beta$  0.15) and decision authority ( $\beta$  -0.15) all showed relatively strong contributions while job demands ( $\beta$  0.07) contributed only weakly. Adding workplace bullying to the model showed a marginal increase in the amount of explained variance to 14% ( $\chi^2$  3052; df 513; RMSEA 0.047; CFI 0.960; NNFI 0.956). Decision authority ( $\beta$  -0.14), role ambiguity ( $\beta$  0.13), bullying ( $\beta$  0.13) and role conflict ( $\beta$  0.12) showed comparable contributions, while job demands no longer contributed significantly.

The job stressors showed marginal contributions in relation to absenteeism, with only decision authority ( $\beta$  -0.15) and job demands ( $\beta$  0.07) reaching statistical significance, accounting for 4% of the variance ( $\chi^2$  3301; df 518; RMSEA 0.049; CFI 0.955; NNFI 0.951). Adding workplace bullying to the model increased the amount of explained variance to a modest 5%, with only bullying ( $\beta$  0.14) and decision authority ( $\beta$  -0.13) showing modest but significant contributions ( $\chi^2$  2985; df 513; RMSEA 0.046; CFI 0.960; NNFI 0.956).

## DISCUSSION

The aim of the present study was to investigate the often made claim of bullying being a severe social stressor and a more crippling and devastating problem for affected individuals than the effects of all other work-related stressors put together. As hypothesized, workplace bullying was found to be a significant predictor of all the outcomes investigated, also after controlling for the effects of other stressors frequently encountered within organizations. Although a significant predictor, the results show a differential pattern with regard to the relative effect of workplace bullying across outcomes. For anxiety and depression, bullying was found to be a potent stressor, showing substantial contributions even after controlling for the other job stressors. While an increase in the amount of explained variance of six per cent was found in relation to anxiety, bullying contributed with as much as 10% of

the variance in depression. Workplace bullying was by far the strongest predictor of both anxiety and depression as compared to the other job stressors investigated.

Workplace bullying accounted for 3% of the variance and showed a relatively strong contribution in relation to job satisfaction, although considerably weaker than did decision authority. However, for turnover intention and absenteeism, bullying showed only marginal additional contributions in terms of explained variance. For turnover intention, the stressors showed comparable, although rather weak contributions, with bullying contributing no more than 1% of the explained variance. For absenteeism, all stressors showed only weak contributions, with only decision authority and bullying reaching statistical significance. Although a significant contribution, workplace bullying contributed with only 1% of the variance to a total of 5%, however, a finding that is in correspondence with previous findings on bullying and absenteeism (cf. Hoel, Einarsen & Cooper, 2003). In sum, the relative effect of workplace bullying appears to be more salient for anxiety, depression and job satisfaction than for turnover intention and absenteeism.

Being exposed to mistreatment at work in the form of bullying is by definition embedded in a situation involving both formal and informal power and status inequalities between the parties involved, in which affected individuals gradually end up losing resources and finding it difficult to defend themselves against the aggressive behavior they are being exposed to (Einarsen *et al.*, 2003). Exposure to such aggressive behavior may threaten fundamental psychological and relational needs (cf. Aquino & Thau, 2009; Baumeister & Leary, 1995) and cause anxiety and worry in the short term, while it may result in severe anxiety, depression and helplessness in the long run (cf. Williams, 2007). As the results show, workplace bullying was indeed found to be a considerable stressor in relation to anxiety and depression. Being exposed to workplace bullying is thus clearly a stressful situation characterized by the depletion of both internal and external coping possibilities, leading to stress symptoms of a more severe nature than most other stress situations encountered within organizations, at least when the intensity and frequency of the exposure becomes more severe (Zapf & Einarsen, 2005). Indeed, individuals exposed to long-term and severe bullying have been found to portray symptoms resembling those of post-traumatic stress disorder (Leymann & Gustafsson, 1996; Mikkelsen & Einarsen, 2002). Thus, being exposed to bullying at work may actually be more than just an ordinary job stressor, but in fact represent a traumatic event for affected individuals where ordinary coping mechanisms diminish as the intensity of the bullying exposure increases (cf. Nielsen, Matthiesen & Einarsen, 2008).

Unlike exposure to other stressors present at work, the mistreatment experienced by targets of bullying is not inherent in the demands and expectations of one's job, and thus perceived as unnecessary and unfair (Mikkelsen & Einarsen, 2002). Employees may experience their jobs to be overly hectic and stressful from time to time, yet, this is to be expected and thus tolerated as part of being employed. However, perceiving oneself to be treated unfair and exposed to aggressive behavior not experienced by others may be emotionally upsetting and fuel a deep sense of cynicism about the workplace as a whole (cf. Maslach, Schaufeli & Leiter, 2001). If individuals develop such cynicism about their

workplace due to bullying, one can expect this to affect individuals' satisfaction and commitment towards their jobs, their desire to remain with their employers and willingness to be present at work, and thus to have an adverse impact on the efficiency and effectiveness of work groups as well as the entire organization in the long run. However, attendance at work is a necessity for most people in terms of salary and commitments towards other obligations, and is therefore an unavoidable setting. Many targets of bullying may also be reluctant to leave their jobs because leaving would imply resigning to their harassers and thus tolerating defeat (Brotsky, 1976). Moreover, to avoid being associated with disloyalty towards their organizations, many targets may be present at work even if medically they would benefit from staying at home (Hoel *et al.*, 2003). Thus, although being exposed to bullying, dissatisfied individuals may decide to remain with their employers and be present at work, possibly explaining why the relationships found with turnover intention and absenteeism is not even stronger.

#### *Methodological issues*

The present study investigated relationships between job stressors and outcomes of importance to both individuals and organizations, applying a large representative sample that reflects the random employee as opposed to employees in convenience samples or self-selected samples (see, e.g., Nielsen & Einarsen, 2008 for a discussion on the use of convenience samples). The use of a large representative sample thus strengthens the robustness and generalizability of the findings. However, some limitations of the study need to be considered.

The present study is based on cross-sectional data, and although the tested relationships suggest theoretically plausible causal relationships, a cross-sectional design provides a weak basis for making causal inferences (Zapf, Dormann & Frese, 1996). One cannot rule out that relationships between the study variables are in fact different from what prior theory and empirical studies have suggested. Longitudinal studies in the field are necessary before such conclusions can be drawn. In addition, it is possible that the additive relationships between stressors and strains investigated in the present study are in fact of an interactive nature, and that relationships between bullying and strains will be different depending on factors such as personality characteristics or level of perceived control. Future research investigating moderator effects is needed to shed light on such issues.

Another factor to consider is the use of single item self-report measures to assess absenteeism and turnover intention in the present study (see, e.g., Wanous & Hudy, 2001 for a discussion on single item reliability). The use of single item measures has been argued to be appropriate if the item reflects a homogenous and unidimensional construct. Yet, some concerns may apply. For instance, many intra- as well as extra-organizational factors may explain why employees are absent from work, and may explain why only marginally 5% of the variance in absenteeism was accounted for. Factors outside work, not included in the present study, may have a larger influence on absenteeism than do the investigated job stressors. In addition, self-report measures of absenteeism may be influenced by factors such as social desirability and recollection bias, with most respondents reporting none or only a few days of absence from work.

Another concern with single item measures is that of internal reliability. For turnover intention, additional analyses were conducted taking into account unreliability in the single indicator applied. Assuming that no measurement error in an indicator (i.e., measured perfectly reliable and valid) is quite unlikely, thus two reliability estimates were modeled into the analyses to assess differences in amount of explained variance and strength of structural regressions. The recommended minimum reliability estimate of 0.70 and the average reliability estimate of 0.83 reported in the meta-analysis by Bowling and Beehr (2006) were applied in addition to the observed variance of turnover intention (cf. Kline, 2005). Applying the Bowling and Beehr (2006) estimate, the results showed a symmetrical strengthening of structural regressions of 0.01 and a total of 17% explained variance, while applying the minimum reliability estimate, the results showed a symmetrical strengthening of structural regressions of 0.02 and a total of 20% explained variance. However, the incremental contribution of workplace bullying was 1% applying both reliability estimates, equal to the contribution assuming no measurement error. Thus, besides marginally stronger structural regressions and a somewhat larger amount of explained variance, the relative contributions of the job stressors in relation to turnover intention is equal to the results reported in Table 2. Thus, the results derived from the single item measure of turnover intention seem trustworthy.

#### *Conclusion and implications*

The present study demonstrated workplace bullying as a potent social stressor that is negatively associated with both individual well-being and work-related outcomes, with consequences similar to and even stronger than those of other more frequently studied job stressors. As noted by Beehr (1995), how relationships among individuals unfolds is often one of the issues individuals intuitively think of as stressful at work, yet such relationships have seldom been empirically investigated. The present findings highlight the importance of considering bullying alongside other more traditionally studied stressors when investigating consequences of job stress for individuals and organizations. Stressors at work are likely to act simultaneously as sources of strain, and only when including a broad spectrum of stressors is one likely to obtain a more complete picture of the effects of various work environment factors. As shown, exposure to bullying is a serious problem yielding strong effects on individuals also when controlling for other stressors experienced at work. Thus, bullying is not likely to be prevented nor managed by solely focusing on reducing other job stressors, but must actively be prevented and managed in its own right (cf. Einarsen & Hoel, 2008). Hence, managers and organizations need to develop sound anti-bullying policies and take active steps in preventing interaction among individuals escalating into bullying behavior.

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## REFERENCES

- Adams, A. (1992). *Bullying at work: How to confront and overcome it*. London: Virago Press.
- Agervold, M. & Mikkelsen, E. G. (2004). Relationships between bullying, psychosocial work environment and individual stress reactions. *Work & Stress*, 18(4), 336–351.
- Aquino, K. & Thau, S. (2009). Workplace victimization: Aggression from the target's perspective. *Annual Review of Psychology*, 60, 717–741.
- Baumeister, R. F. & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529.
- Beehr, T. A. (1995). *Psychological stress in the workplace*. London: Routledge.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238–246.
- Bowling, N. A. & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: A theoretical model and meta-analysis. *Journal of Applied Psychology*, 91(5), 998–1012.
- Brayfield, A. H. & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307–311.
- Brodsky, C. M. (1976). *The harassed worker*. Toronto: Lexington Books.
- Cooper, C. L., Dewe, P. J. & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Thousand Oaks: Sage Publications.
- Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H. & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, 19(1), 1–15.
- Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, 20(1/2), 16–27.
- Einarsen, S. & Hoel, H. (2008). Bullying and mistreatment at work: How managers may prevent and manage such problems. In A. Kinder, R. Hughes & C. L. Cooper (Eds.), *Employee well-being support: A workplace resource* (pp. 161–173). Chichester: John Wiley & Sons.
- Einarsen, S., Hoel, H. & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, 23(1), 24–44.
- Einarsen, S., Hoel, H., Zapf, D. & Cooper, C. L. (2003). The concept of bullying at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 3–30). London: Taylor & Francis.
- Einarsen, S., Matthiesen, S. B. & Skogstad, A. (1998). Bullying, burnout and well-being among assistant nurses. *Journal of Occupational Health and Safety – Australia and New Zealand*, 14(6), 563–568.
- Einarsen, S. & Mikkelsen, E. G. (2003). Individual effects of exposure to bullying at work. In S. Einarsen, H. Hoel, D. Zapf & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 127–144). London: Taylor & Francis.
- Einarsen, S., Raknes, B. I. & Matthiesen, S. B. (1994). Bullying and harassment at work and their relationship to work environment quality: An exploratory study. *European Work and Organizational Psychologist*, 4(4), 381–401.
- Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, 60, 549–576.
- Hackman, J. R. & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Hauge, L. J., Skogstad, A. & Einarsen, S. (2007). Relationships between stressful work environments and bullying: Results of a large representative study. *Work & Stress*, 21(3), 220–242.
- Hoel, H., Einarsen, S. & Cooper, C. L. (2003). Organisational effects of bullying. In S. Einarsen, H. Hoel, D. Zapf & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 145–161). London: Taylor & Francis.
- Høstmark, M. & Lagerstrøm, B. O. (2006). Undersøkelse om arbeidsmiljø: Destruktiv atferd i arbeidslivet. Dokumentasjonsrapport [A study of work environments: Destructive behaviours in working life. Documentation report] (No. 44): Statistics Norway (SSB).
- Jex, S. M. & Beehr, T. A. (1991). Emerging theoretical and methodological issues in the study of work-related stress. *Research in Personnel and Human Resources Management*, 9, 311–365.
- Jöreskog, K. G. (1993). Testing structural equation models. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 294–316). Newbury Park, CA: Sage Publications.
- Jöreskog, K. G. & Sörbom, D. (1996). *LISREL 8: User's Reference Guide* (2nd edn). Chicago, IL: Scientific Software International.
- Jöreskog, K. G. & Sörbom, D. (1999). *PRELIS 2: User's Reference Guide* (3rd edn). Chicago, IL: Scientific Software International.
- Kahn, R. L. & Byosiore, P. (1992). Stress in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd edn, Vol. 3, pp. 571–650). Palo Alto, CA: Consulting Psychologists Press.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285–308.
- Karasek, R. A. & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Keashly, L. & Harvey, S. (2005). Emotional abuse in the workplace. In S. Fox & P. E. Spector (Eds.), *Counterproductive behavior: Investigations of actors and targets* (pp. 201–235). Washington, DC: American Psychological Association.
- Keashly, L., Hunter, S. & Harvey, S. (1997). Abusive interaction and role state stressors: Relative impact on student residence assistant stress and work attitudes. *Work & Stress*, 11(2), 175–185.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd edn). New York: Guilford Press.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, 5(2), 119–126.
- Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, 5(2), 165–184.
- Leymann, H. & Gustafsson, A. (1996). Mobbing at work and the development of post-traumatic stress disorders. *European Journal of Work and Organizational Psychology*, 5(2), 251–275.
- Maslach, C., Schaufeli, W. B. & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Mikkelsen, E. G. & Einarsen, S. (2002). Basic assumptions and symptoms of post-traumatic stress among victims of bullying at work. *European Journal of Work and Organizational Psychology*, 11(1), 87–111.
- Nielsen, M. B. & Einarsen, S. (2008). Sampling in research on interpersonal aggression. *Aggressive Behavior*, 34(3), 265–272.
- Nielsen, M. B., Matthiesen, S. B. & Einarsen, S. (2008). Sense of coherence as a protective mechanism among targets of workplace bullying. *Journal of Occupational Health Psychology*, 13(2), 128–136.
- Notelaers, G. & Einarsen, S. (2008). The construction and validity of the Short Negative Acts Questionnaire. Paper presented at the 6th International Conference on Workplace Bullying, Montréal.
- Örtqvist, D. & Wincent, J. (2006). Prominent consequences of role stress: A meta-analytic review. *International Journal of Stress Management*, 13(4), 399–422.
- Rizzo, J. R., House, R. J. & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15(2), 150–163.

- Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S. & Hetland, H. (2007). The destructiveness of Laissez-Faire leadership behavior. *Journal of Occupational Health Psychology*, 12(1), 80–92.
- Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11), 1005–1016.
- Spector, P. E. & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3(4), 356–367.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25(2), 173–180.
- van Veldhoven, M. & Meijman, T. F. (1994). *Het meten van psychosociale arbeidsbelasting met een vragenlijst: de vragenlijst beleving en beoordeling van de arbeid (VBBA) [The measurement of psychosocial job demands with a questionnaire: The questionnaire on the experience and evaluation of work (QEEW)]*. Amsterdam: Nederlands Instituut voor Arbeidsomstandigheden.
- Vartia, M. (2001). Consequences of workplace bullying with respect to the well-being of its targets and the observers of bullying. *Scandinavian Journal of Work, Environment and Health*, 27(1), 63–69.
- Wanous, J. P. & Hudy, M. J. (2001). Single-item reliability: A replication and extension. *Organizational Research Methods*, 4(4), 361–375.
- Williams, K. D. (2007). Ostracism. *Annual Review of Psychology*, 58, 425–452.
- Wilson, C. B. (1991). U.S. businesses suffer from workplace trauma. *Personnel Journal*, 70(7), 47–50.
- Zapf, D. (1999). Organisational, work group related and personal causes of mobbing/bullying at work. *International Journal of Manpower*, 20(1/2), 70–85.
- Zapf, D., Dormann, C. & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology*, 1(2), 145–169.
- Zapf, D. & Einarsen, S. (2005). Mobbing at work: Escalated conflicts in organizations. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets* (pp. 237–270). Washington, DC: American Psychological Association.
- Zapf, D. & Gross, C. (2001). Conflict escalation and coping with workplace bullying: A replication and extension. *European Journal of Work and Organizational Psychology*, 10(4), 497–522.

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