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Workplace bullying in a group context: are victim reports of working conditions representative for others at the workplace?

Michael Rosander [a] and Morten Birkeland Nielsen [b,c]

[a]Department of Behavioural Sciences and Learning, Linköping University, Linköping, Sweden; [b]National Institute of Occupational Health, Oslo, Norway; [c]Department of Psychosocial Science, University of Bergen, Bergen, Norway

ABSTRACT

Previous research on psychosocial working conditions as risk factors of workplace bullying builds on the underlying assumption that targets' subjective reports of their psychosocial working conditions are shared by their non-bullied colleagues. This study investigates differences in perceptions of such conditions by comparing the ratings from targets of bullying, witnesses, and non-witnesses in groups with at least one target, and groups free from bullying. We also examine if known work-related risk factors predict a group level estimate of bullying with the targets excluded from the analyses. Data included 2215 employees in 195 work groups from Sweden. Targets of bullying perceived the psychosocial working conditions more negatively compared to non-exposed colleagues. In addition, non-exposed in work groups with at least one target reported their working conditions more negatively than those working in groups free from bullying. Associations between examined working conditions and group levels of bullying were significant even when the targets were excluded from the analyses, albeit less strong. The results show that working conditions are risk factors of bullying, but also indicate that previous studies may have overestimated the associations. Future research should consider differences in perceptions of targets and non-targets when investigating work-related risk factors of bullying.

Introduction

Workplace bullying, the exposure to persistent and frequent harassment from one or more organisational members, has been established a prevalent and detrimental form of work-related mistreatment (Nielsen & Einarsen, 2018). Compared to other forms of mistreatment, such as incivility, abusive supervision, and social undermining which all may represent single incidences, workplace bullying refers to a form of systematic and

prolonged exposure that gradually pushes the target into a helpless situation with less and less ability to avert or stop the negative behaviours (Einarsen et al., 2020). Being exposed to bullying is associated with a range of negative effects, including sleep problems (Nielsen et al., 2020), impaired health (Boudrias et al., 2021; Verkuil et al., 2015), reduced work ability (Nielsen et al., 2016), and risk of suicide (Leach et al., 2017). Consequently, knowledge about how to prevent the occurrence of bullying is pertinent for employee health and well-being.

According to the *work environment hypothesis* (Einarsen et al., 1994; Leymann, 1996), which has gained strong empirical support throughout 30 years of research on the topic (Salin & Hoel, 2020), bullying is mainly caused by a stressful and poorly organised work environment. This means that interventions aimed at reducing bullying should focus on the psychosocial working conditions of employees (Van den Brande et al., 2016). However, a significant limitation of most previous studies on working conditions as risk factors of bullying is that they are based on individual level self-report methods where the subjective perceptions of individual targets of bullying are associated with the same targets' perceptions of exposure. This suggests that the findings on risk factors only reflect how the bullied respondents experience their work conditions and there is no form of validation from other members of their work group. Consequently, our current knowledge about the psychosocial risk factors of bullying rests on the underlying, and rarely discussed, assumption that the way bullied employees view their working conditions echoes the views of their colleagues. We will argue that this assumption is problematic since previous studies have shown that exposure to bullying influence the targets' view of the workplace and that the targets thereby have a more negative view of the working environment compared to non-bullied employees (e.g. Einarsen et al., 1994; Hauge et al., 2007; Rosander & Blomberg, 2019). To empirically test the assumption that the targets' perceptions of their work environment are indicative of how non-bullied colleagues evaluate their work environment, the present study used data from work groups to compare how four categories of employees experience their psychosocial working environment: three working in groups where bullying is present – targets, witnesses, and non-witnesses – and one category consisting of those working in groups free from bullying. Targets are those employees who report being exposed to bullying, witnesses are employees reporting to have witnessed a co-worker being bullied without being bullied oneself (Nielsen et al., 2021, showed that about one in four employees had witnessed others being bullied without being bullied oneself), and non-witnesses are all others in a work group not bullied nor having witnessed bullying. In addition to being mutually exclusive, these categories cover all basic potential roles employees can have regarding bullying at the workplace.

Using the above categorizations as a basis, the present study has two main aims: First, to investigate how targets, witnesses, and non-witnesses in groups where bullying exists perceive their working environment and compare it to the views of employees in groups without any reports of bullying. Second, to examine how much of the strength of the associations between well-known psychosocial risk factors of bullying and occurrence of bullying can be attributed to more extreme views of targets and witnesses using both individual and group level estimates of bullying. In the upcoming sections, we will present a theoretical background, the psychosocial conditions that

will be examined in this study, their associations to workplace bullying, and our study hypotheses.

The impact of work environment on workplace bullying

Bullying behaviours have been categorised in different ways in the literature (Einarsen, 1999; Einarsen et al., 2009; Leymann, 1996; Zapf et al., 1996). Leymann (1996) suggested five categories of behaviours or situations in which a target is (a) being silenced by threats or verbal attacks, (b) getting excluded from social situations, (c) being the target of rumours or ridicule shattering one's reputation, (d) getting too little or too much work tasks or meaningless tasks, and (e) getting physically harmed. Einarsen and Raknes (1997) identified two main categories of behaviour, work-related and person-related bullying behaviours. Person-related bullying behaviours are behaviours attacking the personal integrity of the target, such as insults, teasing, gossip, and rumours. Work-related bullying behaviours are behaviours directed at the target's work tasks and performance, such as excessive monitoring, being ordered to work below one's level of competence, and being given an unmanageable workload. Bullying behaviours can also be categorised as direct or indirect behaviours. Direct behaviours can be, for example, verbal attacks, accusations and humiliation delivered directly to the target, while indirect behaviours affects the target indirectly such as rumours or social isolation at work (O'Moore et al., 1998).

The two main explanations for the onset and occurrence of workplace bullying are dispute-related bullying and predatory bullying (Einarsen, 1999). *Dispute-related bullying* evolves out of an interpersonal dispute and refers to instances of bullying that is preceded by a highly escalated interpersonal conflict between two or more co-workers and where a power imbalance has developed between the parties. *Predatory bullying* refers to cases where the victim personally has done nothing provocative that may reasonably justify the behaviour of the bully (Einarsen, 2005), for instance when a supervisor is abusing his power, or the target is a victim of scapegoating processes within the group (Einarsen et al., 2020). Irrespective of the cause, bullying will always involve at least two parties, the bully or bullies (i.e. the perpetrator) and the bullied (i.e. the target or victim). However, as the workplace is a social environment, it is also likely that bullying will include more or less neutral third parties – some who may directly witness or indirectly learn about the bullying and some who are completely unaware of its occurrence.

As both dispute-related and predatory bullying involves two or more individuals and takes place in an occupational setting it is reasonable that the root causes of the bullying result from the individual characteristics of the parties in combination with specific working conditions, and further that both individual and situation factors will impact how the bullying is perceived and interpreted by the different parties. However, rather than integrating these explanations, previous studies on the work-related risk factors of workplace bullying have mainly investigated the role of job stressors without taking into consideration how individual factors, such as differences in perception, may influence the reports of both job stressors and bullying. By correlating degree of exposure to bullying behaviours with exposure to different work stressors, these studies have pointed to several work-related risk factors of workplace bullying, with leadership factors, role stressors, and social climate as some of the most prominent correlates of

bullying (Van den Brande et al., 2016). Based on this line of evidence, it has been proposed that interventions against bullying should focus on improving the psychosocial working conditions at workplaces (Tuckey et al., 2009).

Yet, an important limitation of this approach to determine the risk factors of bullying is that the results solely are based on bullied employees' perceptions of their own working conditions. This is problematic for several reasons. First, it is well known that personality characteristics influence both reports of bullying and working conditions. For instance, findings show that persons with high scores on neuroticism have a lower threshold for interpreting negative encounters at the workplace as bullying (Nielsen et al., 2017), while also being more emotionally sensitive to job stressors (Li & Xu, 2020). The reports from bullied workers may therefore reflect some underlying perceptual bias rather than the actual working conditions. It is important to stress that in the present study we do not argue for personality as a risk factor of bullying – we investigate targets' perceptions of situational factors in relation to workplace bullying. Second, some longitudinal cross-lagged panel studies have shown that exposure to bullying leads to more negative ratings of working conditions over time (Hauge et al., 2011b; Nielsen & Knardahl, 2015), something which indicates that the reported working conditions, at least in part, are outcomes, rather than precursors, to bullying.

Taken together, this means that previous findings on role stressors, work climate, and leadership style as risk factors of bullying are likely to be coloured by the individual characteristics of those exposed, including their own exposure to bullying. Therefore, we cannot be sure whether the subjective reports of working conditions from bullied employees actually are representative for others in the work group (Agervold & Mikkelsen, 2004). To determine whether the perceptions of the targets are generalisable to the larger work group, it is necessary to validate their perceptions of working conditions against the reports of their non-exposed colleagues, including witnesses and non-witnesses.

Already in the early 1990s, Einarsen et al. (1994) pointed to the importance of distinguishing targets' perception from witnesses and non-witnesses of bullying. In an exploratory individual level study, they found differences between non-witnesses and witnesses/targets regarding social climate, role conflict, and leadership. As this study was based large scale sample without information about which respondents worked together in the same groups, the study seems to rest on the assumption that non-witnesses represented workplaces without any victims of bullying. However, as bullying behaviours can be ambiguous (Einarsen et al., 2020) where the full extent of the exposure may only be realised from repetition – something that may be lost on a potential witness as only snapshots of the negative treatment can be discerned – it is possible that some of the non-witnesses may actually have worked at workplaces where bullying exists and that the occurrence of bullying thereby indirectly have influenced reports of the working conditions.

Adding information about differences in perceptions among bullied and non-bullied in the same work groups Agervold and Mikkelsen (2004) found that those exposed to bullying experienced worse work conditions than the non-bullied ones as reflected through factors such management style, role clarity, and social climate. The study of Agervold and Mikkelsen (2004) was replicated by Agervold (2009) who compared two departments that were "particularly hard-hit by bullying" (p. 271) with ten other

departments less struck by bullying. The results showed clear differences between the departments with most bullying and those with least bullying for demands and pressure of work, autocratic management style, unclear roles, and social work climate, and the differences remained also after excluding the bullied employees. Although based on a small sample (only two departments), the study still showed differences in the overall perception of the working conditions and not just a difference on account of a more negative perception of the victims of bullying.

There are also a few studies that have taken a different approach to the issue of victim perceptions vs. work group as-a-whole perceptions. A study by Hauge et al. (2011a) used group level characteristics as predictors of workplace bullying and investigated if the shared perceptions of working conditions differed by comparing workplaces where bullying was prevalent to other workplaces. They focused on witnesses to bullying as a way to capture occurrence of bullying as "an appropriate measure to reflect the overall incidence of workplace bullying at the departmental level" (p. 310). That is, the assumption was that the larger the share of employees at a workplace that report observed bullying of others, the higher the incidence of bullying. The findings showed that even when excluding the targets there were significant associations on a group level between a fair and supportive leadership and between role conflict, respectively, and the percentage of employees that had witnessed bullying at their workplace. The third factor tested in this study, ambiguous roles, did not show a significant association.

However, the assumption that witness reports reflect the actual occurrence of bullying is problematic as it is far from certain that witnesses will identify all kinds of bullying behaviours the same way as targets. For instance, it is plausible that witnesses would categorised overt and direct forms of bullying behaviours as bullying, such as verbal attacks, more easily than ambiguous and less direct forms, such as social isolation (Einarsen et al., 2020). Finally, in a study of 4064 respondents from 276 departments, which tested shared perceptions of the work environment, the results showed that observed bullying could be explained by the way the work conditions were perceived within the group (Skogstad et al., 2011). Specifically, both witnesses and targets of bullying behaviours perceived poorer work conditions as reflected through leadership behaviours (support and fairness), role ambiguity, role conflict, and social climate in work groups and department where bullying existed.

Hypotheses

Taken together, existing research points to psychosocial working conditions as precursors to bullying. However, existing research is limited by how and by whom bullying is reported, and it has not been possible to determine whether the reports are generalisable to all employees in a work group. To remedy these limitations, the present study examined four categories of employees, three working in groups where bullying was present – targets, witnesses, and non-witnesses, and one category consisting of those working in groups free from bullying. We compared these four categories regarding perceptions of the leader activity, structural aspects in the form of role clarity and conflict management, and social aspects at the workplace, perceptions of hostility, unfairness, and cooperation. These specific working conditions are included in the current study as they have been established as potential risk factors of bullying in previous research

(Salin & Hoel, 2020; Van den Brande et al., 2016). Based on Einarsen et al. (1994), Agervold and Mikkelsen (2004), and Agervold (2009), and using Samnani and Singh's (2016) multi-level interactionist model for workplace bullying as a starting point, we propose that there are differences between targets, witnesses, non-witnesses, and employees in groups without bullying in regard to leader activity, role clarity, conflict management, hostility, unfairness, and the relations and cooperation with one's closest colleagues. Specifically, according to Samnani and Singh, exposure to workplace bullying can increase many of the emotions encompassed within negative affect such as anxiety, tension, and sadness, and reduce positive affect, due to the negative nature of experiencing such behaviours. This negative affect is thereby likely to have a ripple effect on perceptions of other aspects of the working situation, including viewing the working conditions as poorer. Samnani and Singh further proposed that the presence of bullying can influence how third parties experience the working conditions. That is, as third-party witnesses may develop feelings of moral anger toward the perpetrator as well as a fear of the perpetrator, this can reduce the level of cohesion within the team, which again is likely to lead to a de-evaluation of the working environment and conditions. This negative evaluation of the working environment from targets and witnesses may have spillover-effects on non-observers, through word of mouth or emotional contagion. Of course, due to their direct exposure, it is reasonable to expect that targets of bullying will be more strongly affected than witnesses and non-witnesses. Further, because witnesses directly witness the exposure and reactions of the targeted victim, bullying should have a stronger impact on evaluations of working conditions than for those who did not see the event firsthand. To examine this assumption, the following hypotheses will be tested:

> *Hypothesis 1a.* Targets of bullying will have a more negative perception of their work environment compared to non-targets in work groups where bullying exists, and employees in work groups free from bullying.

> *Hypothesis 1b.* Witnesses of bullying will have a more negative perception of their work environment compared to non-witnesses in work groups where bullying exists, and employees in work groups free from bullying.

> *Hypothesis 1c.* Non-witnesses in work groups where bullying exists will have a more negative perception of their work environment compared to employees in work groups free from bullying.

If the work environment hypothesis (Einarsen et al., 1994; Leymann, 1996) holds true the association between predictor and level of exposure to bullying behaviours in a work group will be significant also without the perceptions of targets that may be very affected by the negative treatment they are exposed to. Deficiencies in the work environment, affecting all members of the work group is what is supposed to foster the occurrence of bullying according to the work environment hypotheses, not merely employees exposed to or in close proximity to the mistreatment. The problem testing this is that bullying does not hit equally for all employees in a work group no matter how bad the work environment is, there are a selected few that get directly exposed, and some that are indirectly exposed (witnesses). A measure of the level of exposure on a group level is therefore necessary for this analysis. We will conduct four sets of analyses. First, as a

baseline, we will assess the associations between risk factors and estimates of bullying at the individual level, that is, the same approach that most previous studies on risk factors of bullying have used (for an overview, see Van den Brande et al., 2016). We will then investigate bullying at the group level. First including all participants, and then the analyses will be replicated with all targets excluded. Finally, we will exclude both targets and witnesses as witnesses also may be affected by what they observe (Nielsen et al., 2021), possibly contributing to an overestimation of the associations. As the associations at the individual level probably are affected by the more negative views of targets and witnesses, we predict that the associations using the individual level estimates of bullying (i.e. without any regard to information on group membership) will be stronger than the same associations using the group level estimate of bullying in each work group. Based on the work environment hypothesis (Einarsen et al., 1994; Leymann, 1996), that is, that bullying mainly is caused by factors in the work environment, the perceived deficiencies in the working environment would be experienced by all employees at the workplace or work group and not only by targets and witnesses. Thus, the associations between risk factors in the work environment and bullying at the group level should still be significant with targets and witnesses excluded.

Hypothesis 2a. The associations between predictors of workplace bullying and individual level exposure to bullying behaviors will be stronger than for group level estimates of bullying.

Hypothesis 2b. The associations between predictors of workplace bullying and group level estimates of bullying will be significant even after excluding all targets.

Hypothesis 2c. The associations between predictors of workplace bullying and group level estimates of bullying will be significant even after excluding all targets and witnesses.

Materials and methods

Sample

Data were gathered from four different organisations representing three different work sectors in Sweden, one government agency, two municipalities, and one private company. Data were collected as part of the organisations' regular work environment surveys (around 200 items, Rosander & Blomberg, 2018) between the years 2015 and 2020 with three separate data collections about 20 months apart. The current data are from the third data collection as it allowed for the most complete identification of work groups. The response rates were stable around 70% for all three data collections. The third one had a response rate of 72%. The project was approved by the Regional Ethical Review Board at Linköping University, Sweden. Protocol number: 2014/282-31. All participants gave their informed consent prior to inclusion in the study.

Participants

In total, the data consist of answers from 2,215 employees in 195 work groups in the four organisations. To be included, a group needed to have at least four employees responding. An additional 102 supervisors also responded but were not included in the present

study as some of the investigated working conditions involved the perception of one's immediate supervisor. A second reason for this exclusion was that previous research has shown that supervisors experience working conditions differently from others at the workplace (Chen et al., 2016; Ye et al., 2021). The data used in the study comprised 891 men (40%) and 1,324 women (60%). The overall gender mix in the 195 groups was 57% women. The mean age was 45.2 years (*SD* = 11.3) and they had worked at their current workplace for 10.3 years (*SD* = 9.8).

Measures

Exposure to bullying behaviours was measured using the Negative Acts Questionnaire–Revised (NAQ–R, Einarsen et al., 2009). NAQ–R comprises 22 items covering a wide array of bullying behaviours one may be exposed to at work. It asks for exposure for the past six months on a frequency scale from 1 (*never*) to 5 (*daily*). Internal consistency, Cronbach's alpha was .88. To distinguish the bullied from the not bullied we used a cut-off at a sum score of 33 as suggested by Notelaers and Einarsen (2013). That is, respondents with a NAQ–R score of 33 or more were considered as exposed to bullying (i.e. "Targets"), whereas those with a score below 33 were classified as not exposed to bullying (i.e. "Non-targets").

Active Leadership (AL) is a measure of a reversed laissez-faire leadership based on four items from the Multifactor Leadership Questionnaire (Bass & Avolio, 1990). The four items capture if one's immediate supervisor addresses important topics in a timely manner, is available when needed, makes good decisions, and responds quickly when important questions need to be answered. Responses are given on a seven-point Likert scale. Cronbach's alpha was .92.

Conflict Management Climate (CMC) was assessed with three items based on the Climate for Conflict Management scale (Einarsen et al., 2018). The items are: (a) "Should a serious conflict arise at our workplace, I am confident that it will be resolved in good way"; (b) "At our workplace, we are good at solving conflicts"; and (c) "The supervisor is good at resolving conflicts". Responses are given on a seven-point Likert scale with an internal consistency of .89 (Cronbach's alpha).

Roles in the Organization (RIM) measures the level of clarity regarding roles, responsibilities and expectation at the workplace and is taken from the Psychosocial Work Environment Questionnaire (PSYWEQ, Rosander & Blomberg, 2018). It comprises six items covering: (a) unclear roles, responsibilities, and tasks; (b) a clear division of tasks; (c) clear roles; (d) an orderly organisation; (e) well-functioning routines and organisation; and (f) clear role expectations. Responses are given on a seven-point Likert scale. Cronbach's alpha was .90.

Hostile Work Environment (HWC) is a measure of the level of hostility at the workplace (Rosander & Salin, 2023). It comprises five items measuring perceived suspicion, misunderstandings, conflicts, and the perception of ill-treatment of co-workers at the workplace. Two of the items capture if one feel safe and secure with a perception of a good atmosphere in the workplace as a whole (reversed). Responses are given on a seven-point Likert scale. Cronbach's alpha was .82.

Cooperation Climate (CC) measures the perception of cooperation with one's closest colleagues. It comprises three items taken from the PSYWEQ (Rosander & Blomberg,

2018) using a seven-point Likert scale. The items capture a perception of a well-functioning cooperation with colleagues, listening to one another, and a good atmosphere in the company of one's closest colleagues. Cronbach's alpha was .93.

The indicator of *Unfair procedures and treatment* (UPT) captures a perception of unfairness at workplace. It comprises two items from the PSYWEQ (Rosander & Blomberg, 2018). Responses are given on a seven-point Likert scale. The items cover a perception that the workplace is characterised by unfair practices, routines and procedures, and a perception that employees are treated differently without reasonable grounds. As it comprises only two items the internal consistency was estimated using Spearman–Brown (Eisinga et al., 2013) and was .84.

Additional information about exposure to bullying was obtained through a question about witnessing bullying and an indication as to whom the bully (or bullies) was. The first was used to identify one of the categories of employees to be compared in the study – the witnesses. The latter to ensure that the person exposed to bullying was bullied by someone in their own work group and not by someone else. A respondent was categorised as a witness if answering at least *now and then* to the question "Have you witnessed someone being exposed to at least some of the above-mentioned negative acts during the past 6 months at your workplace?" (using the same frequency scale as the NAQ–R and following directly after the 22 NAQ–R items) and that a target in one's own work group had indicated that they were bullied by someone within the group. This was measured with a question directed to all witnesses and targets where they could indicate that the bully was the supervisor, a colleague(s), someone at other workplaces within the organisation, or others not covered by the first three options (multiple responses were allowed). If at least one person in a work group had a NAQ–R sum on or above 33 and indicating exposure to bullying from supervisor or a co-worker at one's own work group, the group was categorised being a group infested by bullying. Otherwise, the work group was categorised as having no one exposed to bullying in the group.

A group level estimate of exposure to bullying behaviours was created to overcome possible limitations in previously used group level estimates such as group mean or observer ratings (e.g. Hauge et al., 2011b; Mathisen et al., 2012). Group mean may be problematic as bullying is highly skewed, and with observer ratings there is a risk one misses both severity and less observable bullying behaviours. We used, for each of the 195 groups, the individually highest NAQ–R score in each group, that is, an overall estimate for each work group that allowed differentiation of severity and inclusion of more than merely observable kinds of bullying behaviours. It also allowed exclusion of different categories of participants – targets and witnesses – when investigating associations between potential risk factors and bullying.

Data analyses

Statistical analyses were conducted Using IBM SPSS version 28. To test the first hypothesis, we used MANOVA comparing the four different categories – targets, witnesses, and non-witnesses in groups with at least one person exposed to bullying and those in groups without anyone exposed to bullying. For the second hypothesis, simple linear regressions for each of the six study variables predicting the group level NAQ–R score were conducted. First, all participants were included to get a baseline corresponding to what

previous studies have done, that is, including the targets' more extreme perceptions of the work environment. Then all targets were excluded, and the analyses were replicated. Finally, both targets and witnesses were excluded. Testing the hypotheses, we ran the analyses with and without the background variables age, gender, and period of employment at the current workplace as covariates. The covariates had no impact on the results, so the results were presented without covariates.

Results

There were 176 employees exposed to bullying (NAQ–R ≥ 33), and of these 77 were men (8.6% of all men) and 99 were women (7.5% of all women). There were no significant gender differences in exposure to bullying, $\chi^2(1) = 0.99$, $p = .320$. In 112 of the 195 groups there were no employees exposed to bullying, hereafter referred to as *No Bullied in Group* groups (NBG groups, $n = 1,066$, not including 25 employees bullied by someone outside of the group). In 83 groups there was at least one employee exposed to bullying, hereafter referred to as *Bullied in Group* groups (BiG groups, $n = 1,124$ including 973 employees not exposed to bullying and 151 targets). In more than half of the BiG groups (54%) only one employee was the target, in 24% of the groups there were two targets, and in 11% there were three targets. In the remaining nine groups there were more than three targets, but they were also bigger groups or work units (mean group size for them was 20.3 employees, $SD = 8.2$) whereas the overall mean group size was 11.8 employees ($SD = 6.3$). The correlation between group size and number of bullied in a group was significant and positive, $r(193) = .37$, $p < .001$, thus indicating that size does matter when it comes to how many in a group that are exposed to bullying. There was no significant difference in gender mix comparing the NBG groups (59% women) and the BiG groups (54% women), $t(193) = 1.20$, $p = .240$.

Means, standard deviations, and intercorrelations for the main study variables are presented in Table 1.

Different perspectives on the work environment

In the 83 work groups where at least one employee was exposed to bullying there were 151 targets, 299 witnesses (not targets themselves), and 674 that did not report seeing anyone in the work group exposed to bullying. These three different viewpoints of employees were compared with the 1066 employees in groups free from bullying. There was no significant difference in number of men and women in the four categories, $\chi^2(3) = 3.33$, $p = .343$. Regarding age and period of employment, the targets were

Table 1. Means, standard deviations, and intercorrelations for the main study variables.

| Variable	Mean	SD	AL	CMC	RIM	CC	HWC
Active leadership (AL)	5.37	1.46					
Conflict management climate (CMC)	4.80	1.67	.63				
Clear roles (RIM)	5.05	1.32	.51	.55			
Cooperation climate (CC)	6.11	1.11	.35	.50	.42		
Hostile work climate (HWC)	2.35	1.24	−.47	−.68	−.48	−.53	
Unfair procedures & treatment (UPT)	2.74	1.83	−.52	−.54	−.47	−.36	.57

Note. All correlations significant, $p < .001$.

somewhat younger, $F(3, 2{,}186) = 4.95$, $p = .002$, $\eta^2 = .007$, and had worked a shorter period of time at their current workplace than non-witnesses, $F(3, 2{,}186) = 4.26$, $p = .005$, $\eta^2 = .006$. A MANOVA investigating differences between (a) targets, (b) witnesses, and (c) non-witnesses in groups with at least one target, and (d) employees in work groups with no targets of bullying from within the group showed significant differences, Pillai's trace $= 0.34$, $F(18, 5{,}712) = 40.12$, $p < .001$, $\eta_p^2 = .11$. Separate tests for each of the variables showed that all contributed to this difference (see Table 2).

Post hoc comparisons (Tamhane's T2) showed clear differences between all four categories. *The targets* perceived their work environment very differently than employees in the other categories. The targets reported less active leadership and role clarity, poorer conflict management climate and cooperation climate, a more hostile work climate, and more unfair procedures and treatment. *The witnesses* perceived their work environment as significantly better than the targets on all accounts measured in the study. Finally, the third perspective from those working in groups with at least one target – those who did not witness anyone exposed to bullying – perceived the work environment significantly more positive than both targets and witnesses on all accounts. However, compared to those who worked in groups without any targets of bullying, the non-witnesses in groups with targets perceived a worse work environment regarding active leadership, role clarity, cooperation climate, and hostile work environment. There were no significant differences between non-witnesses and groups without bullying for conflict management climate, and unfair procedures and treatment. The results for all four groups are presented in Figure 1 and Table 3. This means all three hypotheses (H1a–H1c) about group differences were supported.

To test the second hypothesis, four sets of regression analyses were conducted. In the first, the outcome was the individual level of exposure to bullying behaviours (H2a), and in the remaining three, the outcome was the group level of exposure to bullying behaviours, that is, the individually highest NAQ–R score in each of the 195 work groups (H2b and H2c). Hypothesis 2a states that the associations for the individual level exposure to bullying behaviours will be stronger than the group level estimates. The two following hypotheses state that each of the six study variables will predict bullying even if targets are excluded (H2b), and targets and witnesses are excluded (H2c), so in each set six simple regression analyses were conducted. The level of exposure to bullying behaviours for the four categories differed significantly, $F(3, 2{,}186) = 1{,}031.67$, $p < .001$. The targets had a mean NAQ–R score of 41.11 ($SD = 10.07$), the witnesses 26.06 ($SD = 3.13$), the non-witnesses 24.07 ($SD = 2.44$), and finally employees in groups free from bullying had 24.11 ($SD = 2.44$). Post hoc tests showed no difference between non-witnesses and employees in groups without bullying, however, witnesses had a higher

Table 2. Separate univariate tests of the outcome variables used in the MANOVA.

Variable	F	p	η_p^2
Active leadership	99.47	<.001	.14
Conflict management climate	118.34	<.001	.16
Clear roles	81.74	<.001	.11
Cooperation climate	92.71	<.001	.13
Hostile work environment	257.35	<.001	.29
Unfair procedures & treatment	127.00	<.001	.17
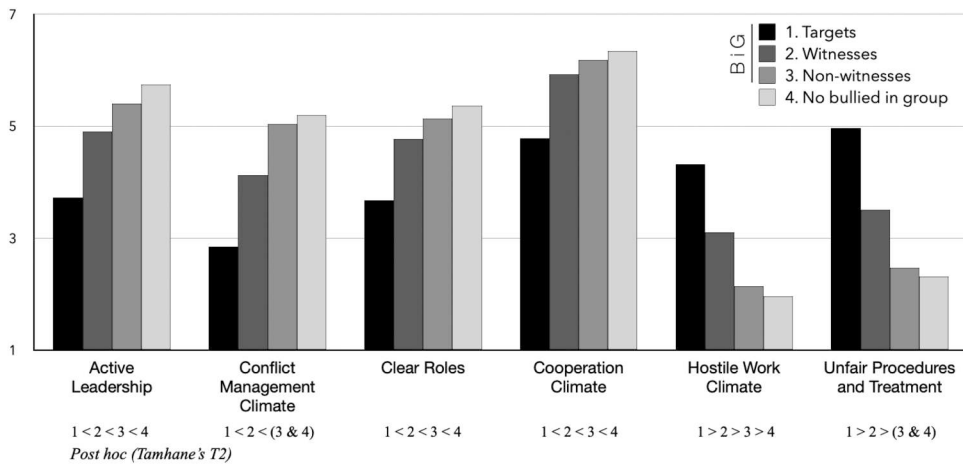
Figure 1. Result from a MANOVA comparing four categories of employees.

Table 3. Means and standard deviations for all variables and groups in Figure 1.

	Bullied in the Group			No Bullied in the Group
	Targets (n = 140) Mean (SD)	Witnesses (n = 269) Mean (SD)	Non-witnesses (n = 587) Mean (SD)	(n = 915) Mean (SD)
Active leadership	3.72 (1.75)	4.90 (1.57)	5.40 (1.43)	5.74 (1.20)
Conflict management climate	2.84 (1.57)	4.13 (1.69)	5.04 (1.50)	5.19 (1.48)
Clear roles	3.68 (1.45)	4.77 (1.35)	5.13 (1.25)	5.36 (1.16)
Cooperation climate	4.78 (1.76)	5.93 (1.04)	6.18 (1.07)	6.34 (0.89)
Hostile work environment	4.32 (1.35)	3.10 (1.28)	2.14 (0.99)	1.97 (0.96)
Unfair procedures & treatment	4.97 (1.63)	3.50 (1.80)	2.47 (1.65)	2.32 (1.64)

NAQ–R score than both of these categories, but also significantly lower score than targets. First, all participants were included in the regression analyses, then all targets were excluded, and finally all targets and witnesses were excluded from the analyses. All variables predicted the level of exposure to bullying when including all participants (i.e. corresponding to the procedures applied in most previous research). Although not as strong, all predictors were still significant after excluding the targets. The stress test, excluding both targets and witnesses, showed even weaker results, however all but perception of conflict management climate, and unfair procedures and treatment significantly predicted the group level NAQ–R score. The standardised coefficients and proportion of explained variance are presented in Table 4. Taken together, hypotheses 2a and 2b were supported and hypothesis 2c was partly supported.

Discussion

The first aim of this group level study was to determine differences in reports of working conditions between targets of bullying, witnesses to bullying, and non-witnesses from workgroups where bullying was present, and non-exposed from workgroups free from bullying. The findings confirmed our expectation (H1a) that targets of bullying do have a very different view of their work environment compared to non-exposed

Table 4. Simple regression for each of the study variables predicting individual level bullying (H2a), and group level bullying (H2b), that is, the highest NAQ score in each work group (standardised coefficients) including all participants, targets excluded, and both targets and witnesses excluded.

	All included Individual level (n = 2,190)		All included Group level (n = 2,190)		Targets excluded (n = 2,039)		Targets and witnesses excluded (n = 1,740)	
	β	R^2	β	R^2	β	R^2	β	R^2
Active leadership	−0.39***	15.4%	−0.22***	5.0%	−0.16***	2.5%	−0.11***	1.1%
Conflict management climate	−0.42***	17.5%	−0.19***	3.6%	−0.12***	1.5%	−0.05^{ns}	0.2%
Clear roles	−0.42***	17.5%	−0.16***	2.7%	−0.10***	1.0%	−0.06*	0.3%
Cooperation climate	−0.42***	18.0%	−0.16***	2.6%	−0.09***	0.7%	−0.06*	0.3%
Hostile work environment	0.51***	26.4%	0.26***	7.0%	0.17***	3.0%	0.06**	0.4%
Unfair procedures & treatment	0.44***	19.3%	0.19***	3.6%	0.11***	1.2%	0.03^{ns}	0.1%

Note. ^{ns} = not significant, *$p < .05$, **$p < .01$, ***$p < .001$.

workers, irrespectively if the non-exposed work in groups infested by bullying or not. We also showed that persons not knowing that someone in their work group is exposed to bullying reported the working conditions as worse compared to those working in groups free from bullying (H1c). The reports of working conditions by witnesses were in-between the targets and non-witnesses, perceiving a significantly worse work environment than non-witnesses, but a significantly better one compared to targets (H1b). That is, the first three hypotheses were supported.

The second aim was to investigate individual and group level estimates of bullying, and to what extent the targets' and witnesses' more extreme views of their working conditions affected the strength of the associations between risk factors and occurrence of bullying. We could show that all six work environment variables examined in the study, active leadership, conflict management climate, role clarity, cooperation climate, hostile work climate, and unfair procedures and treatment, were much stronger predicting the individual level exposure to bullying behaviours than the group level estimate (H2a) – in most cases more than two times as strong. Further, the six work environment variables all predicted group level exposure to bullying in the work group even after excluding all targets of bullying (H2b), and for most work environment variables with both targets and witnesses excluded (H2c). These findings suggest that the associations found in the present study, and in most previous studies on risk factors that include the views of targets, are not a result of the more extreme perception of the work environment of targets of workplace bullying. A poor work environment affects the whole work group and increases the risk of bullying to occur irrespective of how bad and extreme targets view their work environment. However, the results indicate an overestimation of the associations if relying on individual level perceptions of the working environment as predictors of individual level exposure to bullying behaviours. These findings have important theoretical, methodological, and practical implications which we will discuss in the upcoming sections.

Theoretical and empirical implications

The present study contributes new knowledge about differences in perceptions of working conditions among targets, witnesses, and non-witnesses. Regarding theory,

our findings challenge the work environment hypothesis (Einarsen et al., 1994; Leymann, 1996), which states that workplace bullying is caused by poor and dysfunctional organisational conditions. If the work environment hypothesis is correct, working conditions should be rated negatively by all employees at a workplace, and not only those directly or indirectly exposed to bullying. Our findings showed that targets, witnesses, and non-witnesses hold very different views of important work environment factors such as leadership, role clarity, and the work climate, and that the targets of bullying hold the most negative views. This has two main theoretical and empirical implications: (a) that the role of working conditions as a potential cause of bullying, and thereby also the work environment hypothesis, should be questioned; and (b) that relying on reports of working conditions by targets of bullying is not likely to be representative of the actual working conditions, that is, that their perceptions are coloured by their exposure to bullying.

As for the role of working conditions as a potential cause of bullying, Leymann (1996) claimed in his pioneering work that bullying always is a consequence of the prevailing job design and social environment within organisations, and that any individual characteristics associated with exposure to bullying should be considered as an outcome, rather than a cause, of the bullying. However, as noted in the introduction of this paper, existing research has mainly used cross-sectional associations between individual level perceptions and individual level exposure when investigating the importance of the work environment for occurrence of bullying and interpreted it as indicative of the examined working conditions as risk factors of bullying. Hence, up to this date, our knowledge about the role of working conditions is determined by comparing perceptions of bullied employees with the perceptions of non-bullied workers and any differences in reports has been attributed by researchers as indicative for poor working conditions at the workplaces of the targets. However, few efforts have been made to validate the perceptions of the targets with the perceptions of their colleagues employed.

Having conducted such a validation, the findings of our study show that relying on individual level perceptions of both the working environment and perceptions of exposure to bullying behaviours will overestimate the association between working conditions and bullying. We could also show that even if using a group level estimate of bullying, the individual perceptions of the working environment of targets and witnesses will overestimate the importance of working conditions as risk factors of bullying. In addition, the difference in perceptions of working conditions between those targeted and those not targeted in the same work group suggests that the exposure to bullying by itself, and most likely also individual characteristics that influence the perceptions, are likely to determine how the working conditions are experienced. Such a notion is in line with some previous longitudinal evidence that have shown that exposure to bullying leads to more negative reports of the working environment (Hauge et al., 2011b; Nielsen & Knardahl, 2015). Taken together, this means that theoretical perspectives on risk factors of workplace bullying, such as those building on the work of Leymann, should be adjusted regarding the relative importance of the working conditions. In addition, the role of individual characteristics should also be reconsidered. That is, rather than disregarding target characteristics as precursor of bullying, it may be that workplace bullying results from an interaction between situational and individual

factors (Reknes et al., 2019). This suggests that working conditions and dispositional factors should be examined in conjunction rather than separately.

While our results question the overall role of working conditions as antecedents to workplace bullying, we must highlight that the findings do provide some support to the work environment hypothesis since the results showed that also non-targets in work groups infested by bullying experienced more negative working conditions than employees in groups free from bullying, and that the level of bullying in each group still could be predicted by the work environment variables even after excluding all targets. Nonetheless, the evidence for the work environment hypothesis is still inconclusive and further studies are needed to understand how bullying is associated with the overall work environment. Longitudinal studies that also incorporate individual characteristics will be especially important in upcoming research, as such studies can shed light on the causal relations between bullying, dispositions, and working conditions. Future research should take into account the very different perceptions of targets and witnesses when investigating antecedents, mediators and moderators related to workplace bullying. Finally, to further develop the understanding about how working conditions are associated with negative interpersonal relations at workplaces, upcoming studies should extend the findings of present study to other forms of workplace mistreatment such as incivility, social undermining, and ostracism (Hershcovis, 2011).

Methodological implications

The findings of this study call for more advanced study design in future research on work-related risk factors. The majority of previous research on antecedents to workplace bullying has applied an approach where associations between risk factors and bullying have been reported cross-sectionally at the individual level (see Van den Brande et al., 2016). Hence, strictly speaking, most previous studies have really investigated whether the individual perceptions of one's work environment correlate with one's own exposure to bullying. Based on group level data, our results show that these perceptions differ considerably between targets, witnesses, and non-witnesses in work groups where bullying exists. Consequently, an individual level approach to work-related risk factors is unlikely to provide a bias-free investigation, and upcoming research should therefore aim at group level investigations.

Previous attempts at group level assessments have either used the group mean of exposure to bullying behaviours (e.g. Mathisen et al., 2012), a separate measure focusing on observations of bullying as a perceived problem at one's workplace (Einarsen et al., 1994), or using percentage of witnesses to bullying in each group as a way to measure occurrence (Hauge et al., 2011a). Using reports from witnesses alone may be problematic as such an approach is dependent on the openness of the bullying. For instance, it is more likely that colleagues will observe direct threats or verbal attacks than more indirect behaviours such as ostracism and backbiting. In addition, it is likely that witnesses only will be able to see snapshots of the bullying and thereby miss the severity and duration of the mistreatment. Using the group mean of exposure to bullying behaviours as a group level assessment of workplace bullying is also problematic in that bullying as a phenomenon is highly skewed (in the present study 78% of the groups in this study there were only one or two targets), with vast majority of group members experiencing no or

very low levels of bullying behaviours. By using an estimate based on the most exposed individual in each group, we overcame these difficulties. Not only were we able to estimate whether there were cases of bullying in a work group, but we could also provide indications of the severity of the mistreatment of a wide range of direct and indirect bullying behaviours, and not only the behaviours that were directly observable by witnesses.

Practical implications

Workplace bullying is associated with significant costs for individuals, organisations, and the society at large (Hoel et al., 2020; Mikkelsen et al., 2020). To develop effective measures and preventive strategies that can contribute to reduce the risk of bullying and thereby also the related costs, it is vital that organisations have valid knowledge about the antecedents. The results from this study show that targeting the psychosocial working conditions could be especially important. Having investigated two major aspects of the work environment, namely the clarity of expectations regarding appropriate work-related behaviours and factors that may prevent or mitigate problems as they arise, we have shown that occurrence of bullying is associated with unclear role expectations, unfair procedures, a poor conflict management climate and the absence of active leadership. Consequently, improving these aspects of the working environment should be considered as prime candidates for preventive measures against bullying.

However, to achieve valid information about the precursors to bullying, another practical implication of our study is that organisations should not depend upon the descriptions of targets of bullying alone since these are likely to describe the working conditions as excessively negative. To reduce the risk of bias, organisation and managers should rather rely on a comprehensive evaluation incorporating the voices of all employees in the work group to validate the targets reports and thereby get a more precise picture of the actual working environment.

Strengths and limitations

A strength of the present study is the group level design, the large number of respondents and work groups included, and that they represent three sectors of working life: governmental, municipal, and private organisations. The innovative and novel strategy to get a relevant group level estimate of the level of exposure to bullying in each work group is an especially important strength of the study.

As for limitations, the data were self-report measures susceptible to social desirability and common method variance (Podsakoff & Organ, 1986). However, as the data collection was part of the participating organisations' regular work environment survey, the answers meant something more to the participants than merely contributing to research – something that may help improve the accuracy of the responses. It should be noted that the cross-sectional design does not allow for any conclusions about causal relationships between the working conditions and occurrence of bullying, however, the aim of the study was not to establish causality, merely to investigate and compare how targets' and witnesses' more extreme views of their working environment may affect the associations between risk factors and exposure to bullying using individual and group level estimates of bullying. The response rate was rather high (72%), however, there is a risk that

some targets did not respond. This means that some of the "free from bullying" groups may have had targets of bullying and therefore were wrongly categorised. This did not contribute to an overestimation of the results – rather the opposite as we know that all groups with at least one target were correctly categorised.

Conclusions

The present study found that the way bullied employees view their work environment is not shared by other members of the same work group. This suggests that target reports of working conditions alone cannot be used as valid indicator of work-related risk factors to bullying. Nonetheless, supplementing this finding, we have also shown that even those not witnessing bullying in work groups where bullying is present perceive the working conditions more negatively than employees from work groups free from bullying. This implies work environment deficiencies are related to the occurrence of bullying, but that the actual working conditions may not be as negative as the target reports would indicate. It is therefore important for future research to take the differences between targets, witnesses, and non-witnesses into account.

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ORCID

Michael Rosander 🆔 http://orcid.org/0000-0002-0202-4650
Morten Birkeland Nielsen 🆔 http://orcid.org/0000-0001-7858-8623

References

Agervold, M. (2009). The significance of organizational factors for the incidence of bullying. *Scandinavian Journal of Psychology*, *50*(3), 267–276. https://doi.org/10.1111/j.1467-9450.2009.00710.x

Agervold, M., & Mikkelsen, E. G. (2004). Relationships between bullying, psychosocial work environment and individual stress reactions. *Work & Stress*, *18*(4), 336–351. https://doi.org/10.1080/02678370412331319794

Bass, B. M., & Avolio, B. J. (1990). *Transformational leadership development: Manual for the multifactor leadership questionnaire*. Consulting Psychologist Press.

Boudrias, V., Trépanier, S.-G., & Salin, D. (2021). A systematic review of research on the longitudinal consequences of workplace bullying and the mechanisms involved. *Aggression and Violent Behavior*, *56*, 101508. https://doi.org/10.1016/j.avb.2020.101508

Chen, Y., Wen, Z., Peng, J., & Liu, X. (2016). Leader-follower congruence in loneliness, LMX and turnover intention. *Journal of Managerial Psychology*, *31*(4), 864–879. https://doi.org/10.1108/JMP-06-2015-0205

Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, *20*(1/2), 16–27. https://doi.org/10.1108/01437729910268588

Einarsen, S. (2005). The nature, causes and consequences of bullying at work: The Norwegian experience. *Perspectives interdisciplinaires sur le travail et la santé*, *7*(3), 1–19. https://doi.org/10.4000/pistes.3156

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. https://doi.org/10.1080/02678370902815673

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2020). The concept of bullying and harassment at work: The European tradition. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research and practice* (3rd ed., pp. 3–53). CRC Press.

Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence and Victims*, *12*(3), 247–263. https://doi.org/10.1891/0886-6708.12.3.247

Einarsen, S., Raknes, B. I., & Matthiesen, S. B. (1994). Bullying and harassment at work and their relationships to work environment quality: An exploratory study. *European Work and Organizational Psychologist*, *4*(4), 381–401. https://doi.org/10.1080/13594329408410497

Einarsen, S., Skogstad, A., Rørvik, E., Lande, Å. B., & Nielsen, M. B. (2018). Climate for conflict management, exposure to workplace bullying and work engagement: A moderated mediation analysis. *The International Journal of Human Resource Management*, *29*(3), 549–570. https://doi.org/10.1080/09585192.2016.1164216

Eisinga, R., Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International Journal of Public Health*, *58*(4), 637–642. https://doi.org/10.1007/s00038-012-0416-3

Hauge, L. J., Einarsen, S., Knardahl, S., Lau, B., Notelaers, G., & Skogstad, A. (2011a). Leadership and role stressors as departmental level predictors of workplace bullying. *International Journal of Stress Management*, *18*(4), 305–323. https://doi.org/10.1037/a0025396

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. https://doi.org/10.1080/02678370701705810

Hauge, L. J., Skogstad, A., & Einarsen, S. (2011b). Role stressors and exposure to workplace bullying: Causes or consequences of what and why? *European Journal of Work and Organizational Psychology*, *20*(5), 610–630. https://doi.org/10.1080/1359432X.2010.482264

Hershcovis, M. S. (2011). Incivility, social undermining, bullying … oh my!": A call to reconcile constructs within workplace aggression research. *Journal of Organizational Behavior*, *32*(3), 499–519. https://doi.org/10.1002/job.689

Hoel, H., Cooper, C. L., & Einarsen, S. V. (2020). Organizational effects of workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research and practice* (3rd ed., pp. 209–234). CRC Press.

Leach, L. S., Poyser, C., & Butterworth, P. (2017). Workplace bullying and the association with suicidal ideation/thoughts and behaviour: A systematic review. *Occupational and Environmental Medicine*, *74*(1), 72–79. https://doi.org/10.1136/oemed-2016-103726

Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, *5*(2), 165–184. https://doi.org/10.1080/13594329608414853

Li, J., & Xu, S. (2020). Extraversion, neuroticism, and employee voice: A conservation of resources perspective. *Frontiers in Psychology*, *11*, 1281. https://doi.org/10.3389/fpsyg.2020.01281

Mathisen, G. E., Øgaard, T., & Einarsen, S. (2012). Individual and situational antecedents of workplace victimization. *International Journal of Manpower*, *33*(5), 539–555. https://doi.org/10.1108/01437721211253182

Mikkelsen, E. G., Hansen, ÅM, Persson, R., Fosgrau Byrgesen, M., & Hogh, A. (2020). Individual consequences of being exposed to workplace bullying. In S. V. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research and practice* (3rd ed., pp. 163–208). CRC Press.

Nielsen, M. B., & Einarsen, S. V. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior*, *42*, 71–83. https://doi.org/10.1016/j.avb.2018.06.007

Nielsen, M. B., Glasø, L., & Einarsen, S. (2017). Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis. *Personality and Individual Differences*, *104*, 195–206. https://doi.org/10.1016/j.paid.2016.08.015

Nielsen, M. B., Harris, A., Pallesen, S., & Einarsen, S. V. (2020). Workplace bullying and sleep - A systematic review and meta-analysis of the research literature. *Sleep Medicine Reviews*, *51*, 101289. https://doi.org/10.1016/j.smrv.2020.101289

Nielsen, M. B., Indregard, A. M., & Overland, S. (2016). Workplace bullying and sickness absence: A systematic review and meta-analysis of the research literature. *Scandinavian Journal of Work, Environment & Health*, *42*(5), 359–370. https://doi.org/10.5271/sjweh.3579

Nielsen, M. B., & Knardahl, S. (2015). Is workplace bullying related to the personality traits of victims? A two-year prospective study. *Work & Stress*, *29*(2), 128–149. https://doi.org/10.1080/02678373.2015.1032383

Nielsen, M. B., Rosander, M., Blomberg, S., & Einarsen, S. V. (2021). Killing two birds with one stone: How intervening when witnessing bullying at the workplace may help both target and the acting observer. *International Archives of Occupational and Environmental Health*, *94*(2), 261–273. https://doi.org/10.1007/s00420-020-01575-w

Notelaers, G., & Einarsen, S. (2013). The world turns at 33 and 45: Defining simple cutoff scores for the Negative Acts Questionnaire–Revised in a representative sample. *European Journal of Work and Organizational Psychology*, *22*(6), 670–682. https://doi.org/10.1080/1359432X.2012.690558

O'Moore, M., Seigne, E., McGuire, L., & Smith, M. (1998). Victims of workplace bullying in Ireland. *The Irish Journal of Psychology*, *19*(2-3), 345–357. https://doi.org/10.1080/03033910.1998.10558195

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, *12*(4), 531–544. https://doi.org/10.1177/014920638601200408

Reknes, I., Einarsen, S. V., Gjerstad, J., & Nielsen, M. B. (2019). Dispositional affect as a moderator in the relationship between role conflict and exposure to bullying behaviors. *Frontiers in Psychology*, *10*, 44. https://doi.org/10.3389/fpsyg.2019.00044

Rosander, M., & Blomberg, S. (2018). *The WHOLE picture: Measurement of psychosocial work environment*. Linköping University Electronic Press.

Rosander, M., & Blomberg, S. (2019). Levels of workplace bullying and escalation – A new conceptual model based on cut-off scores, frequency and self-labelled victimization. *European Journal of Work and Organizational Psychology*, *28*(6), 769–783. https://doi.org/10.1080/1359432X.2019.1642874

Rosander, M., & Salin, D. (2023). A hostile work climate and workplace bullying: Reciprocal effects and gender differences. *Employee Relations*, *45*(7), 46–61. https://doi.org/10.1108/ER-03-2022-0127

Salin, D., & Hoel, H. (2020). Organizational risk factors of workplace bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Theory, research, and practice* (3rd ed., pp. 305–329). CRC Press.

Samnani, A.-K., & Singh, P. (2016). Workplace bullying: Considering the interaction between individual and work environment. *Journal of Business Ethics*, *139*(3), 537–549. https://doi.org/10.1007/s10551-015-2653-x

Skogstad, A., Torsheim, T., Einarsen, S., & Hauge, L. J. (2011). Testing the work environment hypothesis of bullying on a group level of analysis: Psychosocial factors as precursors of

observed workplace bullying. *Applied Psychology*, *60*(3), 475–495. https://doi.org/10.1111/j.1464-0597.2011.00444.x

Tuckey, M. R., Dollard, M. F., Hosking, P. J., & Winefield, A. H. (2009). Workplace bullying: The role of psychosocial work environment factors. *International Journal of Stress Management*, *16*(3), 215–232. https://doi.org/10.1037/a0016841

Van den Brande, W., Baillien, E., De Witte, H., Vander Elst, T., & Godderis, L. (2016). The role of work stressors, coping strategies and coping resources in the process of workplace bullying: A systematic review and development of a comprehensive model. *Aggression and Violent Behavior*, *29*, 61–71. https://doi.org/10.1016/j.avb.2016.06.004

Verkuil, B., Atasayi, S., & Molendijk, M. L. (2015). Workplace bullying and mental health: A meta-analysis on cross-sectional and longitudinal data. *PLoS One*, *10*(8), e0135225. https://doi.org/10.1371/journal.pone.0135225

Ye, Y., Wang, Z., & Lu, X. (2021). Leader-follower congruence in work engagement and leader-member exchange: The moderating role of conscientiousness of followers. *Frontiers in Psychology*, *12*, 666765. https://doi.org/10.3389/fpsyg.2021.666765

Zapf, D., Knorz, C., & Kulla, M. (1996). On the relationship between mobbing factors, and job content, social work environment, and health outcomes. *European Journal of Work and Organizational Psychology*, *5*(2), 215–237. https://doi.org/10.1080/13594329608414856