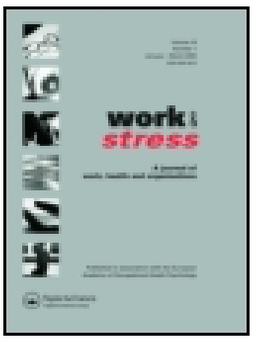

Article:
Farley, S. orcid.org/0000-0003-0782-4750, Mokhtar, D., Ng, K. et al. (1 more author) (2023) What influences the relationship between workplace bullying and employee well-being? A systematic review of moderators. Work & Stress, 37 (3). pp. 345-372. ISSN 0267-8373

https://doi.org/10.1080/02678373.2023.2169968



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Work & Stress

An International Journal of Work, Health & Organisations

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/twst20

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To cite this article: Samuel Farley, Daniella Mokhtar, Kara Ng & Karen Niven (2023): What influences the relationship between workplace bullying and employee well-being? A systematic review of moderators, Work & Stress, DOI: 10.1080/02678373.2023.2169968

To link to this article: https://doi.org/10.1080/02678373.2023.2169968

Published online: 23 Jan 2023.

WORK & STRESS
https://doi.org/10.1080/02678373.2023.2169968

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REVIEW ARTICLE

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What influences the relationship between workplace bullying and employee well-being? A systematic review of moderators

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ABSTRACT

Researchers have consistently shown the detrimental effects that workplace bullying has on employee well-being. While there have been many studies examining moderating factors that worsen or mitigate bullying's effects, the field lacks a common theoretical framework to integrate and explain these diverse moderators. The aim of this systematic review is to identify, categorise, and evaluate variables that have been tested as moderators of the relationship between workplace bullying and well-being using the job demands resources model. Searches of the literature were carried out in the PsycINFO, Web of Science and Scopus databases. Sixty-eight studies met the inclusion criteria, which reported on 209 tests of moderation. Using an established taxonomy, the moderators were categorised into home demands/resources ($n = 2$), personal demands/resources ($n = 136$), job demands/resources ($n = 4$), social demands/resources ($n = 24$), and organisational demands/resources ($n = 43$). Analysis revealed that social resources, such as co-worker support, and organisational resources, such as supportive organisational climates, consistently buffered the harmful effects of bullying. In contrast, personal resources had little influence as moderators. Further cross-cultural and longitudinal research is needed to understand whether the influence of these moderators extends across time and different cultural contexts.

ARTICLE HISTORY
Received 1 October 2021
Accepted 15 January 2023

KEYWORDS
Workplace bullying; moderators; well-being; systematic review

Workplace bullying can have devastating consequences for workers' well-being. Over the past ten years, meta-analyses have emerged, which lay bare the impact that bullying can have on those targeted (Nielsen et al., 2020a; Nielsen & Einarsen, 2012; Verkuil et al., 2015). This body of evidence, covering both cross-sectional and longitudinal studies, shows that exposure to workplace bullying is associated with poorer well-being, with effect sizes in the medium to strong range (e.g. .3 to .7; Mikkelsen et al., 2020). These findings also appear consistent across different occupational contexts (Hogh et al., 2021).

To better understand the nature of the relationship between workplace bullying and employee well-being, researchers have turned to moderation studies, which examine variables that affect the strength of a relationship between predictor and outcome

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(Dawson, 2014). As knowledge develops in a research area, moderation studies can be helpful for identifying boundary conditions (Gardner et al., 2021); in the case of the workplace bullying and well-being relationship, they provide insight into the conditions under which employees are more at risk from, or are more protected against, developing well-being issues following exposure to workplace bullying. Accordingly, researchers have called for greater focus on the factors that moderate the impact of workplace bullying (Mikkelsen et al., 2020; Nielsen & Einarsen, 2018). However, as the volume of moderation studies increases, further advancement of the research area is dependent on reviews that synthesise the evidence to draw conclusions about the nature of the relationship between a construct and its outcomes (Parker et al., 2019).

In this article, we provide a systematic review of moderators of the relationship between workplace bullying and well-being. Although a previous attempt has been made to compile evidence on moderators of workplace bullying (Rai & Agarwal, 2018a), our article updates and advances our understanding in two key ways. First, our article provides a significant update of the research literature. Rai and Agarwal's review addressed papers published until 2016. In the present review, 61.8% of studies we included based on our systematic searches were published after that period (in the years 2016–2021). The evidence from these new studies identifies distinctive new moderating factors and, in some cases, challenges previous understanding (e.g. in terms of the direction of moderation effects). Thus, we provide a much more comprehensive and up-to-date review of the evidence.

Second, we use a theoretical approach to integrate and make sense of different moderating factors. Specifically, we use the job demands-resources model (JDR-R; Bakker & Demerouti, 2007) to explain why people's well-being might vary in response to bullying exposure. We then apply Lee and colleagues' (2020) theoretical taxonomy to categorise demands and resources, allowing us to shed light on the most salient group of factors influencing bullying's effects. Our review therefore contextualises our findings within a common framework, which is valuable because moderation studies in this area have adopted varying theoretical perspectives, or sometimes do not use theories at all, meaning that it is difficult to understand how diverse findings fit into an overall picture (Nielsen & Einarsen, 2018). Using a theory-informed approach has the additional benefit of highlighting gaps in knowledge that could be addressed in future studies.

Our review not only contributes a comprehensive and theory-driven understanding of factors that shape the impact of workplace bullying on those exposed, but it also serves an important practical function. A systematic understanding of factors that limit and exacerbate bullying can inform the development of evidence-based interventions that seek to reduce its impact. Known as secondary interventions, these programmes operate under the assumption that bullying is a feature of organisational life that is unlikely to be prevented altogether, but whose effects can be mitigated (Hershcovis et al., 2015). It has been theorised that secondary interventions, e.g. those that promote coping skills, emotion regulation, and conflict counselling, may help promote adaptive responses to bullying (Hershcovis et al., 2015; Zapf & Vartia, 2020). However, a comprehensive review of moderators is needed to evaluate evidence on whether these factors actually protect targets from developing poor well-being, or whether organisations ought to be encouraged to focus intervention efforts on other factors, such as the work environment.

Workplace bullying and its impact on well-being

Workplace bullying involves behaviours that harass, offend, or socially exclude another person, or negatively affect their work. It can be understood as an escalating process whereby the target is repeatedly subjected to bullying behaviours over time. During this process, a power imbalance between the perpetrator(s) and target develops or worsens, such that the target finds it difficult to defend themselves (Einarsen et al., 2020). There has been some debate about the extent of overlap between workplace bullying and other forms of workplace mistreatment, such as incivility, abusive supervision, and violence (e.g. Hershcovis, 2011). However, it is widely acknowledged that bullying is distinguishable from these constructs as it involves frequent exposure to mistreatment over a period of time (typically six months or longer) and due to the power imbalance between target and perpetrator (Leymann, 1996).

To date, research on the effects of bullying suggests three main types of well-being outcome: *Psychological well-being* refers to affective and cognitive subjective experiences and functioning (Grant et al., 2007; Inceoglu et al., 2018), such as anxiety, depression, and post-traumatic stress, which have been linked to bullying in previous research (Nielsen & Einarsen, 2012). *Physical well-being* encompasses constructs relating to bodily health and functioning, such as pain and physical symptoms (Jacobsen et al., 2018). Finally, *organisational well-being* comprises cognitive–affective processes that link directly to an employee's job or organisation, such as work engagement and job satisfaction (e.g. Law et al., 2011). While organisational forms of well-being have traditionally been studied under the psychological well-being label (Inceoglu et al., 2018), there is theoretical value in distinguishing between them, as moderating variables may differentially affect the relationship between bullying and well-being outcomes. For example, a resilient individual may not experience immediate psychological impairments after bullying exposure but may still experience lower job satisfaction. Moreover, the well-being categories that appear in the bullying literature are reflected in broader theories, conceptualisations, and debates on well-being (Diener & Seligman, 2004). Indeed, Diener et al. (1999) view work-domain satisfaction as a unique component of well-being, which differs from physical health and affective forms of well-being.

The JD-R model

The effects of bullying on well-being outcomes have been explained with reference to several theories in previous research, including the Transactional Theory of Stress (Lazarus & Folkman, 1987), which explains how appraisals of stressors such as bullying-type behaviours and one's ability to cope with these elicit a strain response, and the Cognitive Activation Theory of Stress (Ursin & Eriksen, 2004), which outlines how repeated or chronic cognitive activation produced by stressors leads to prolonged physiological stress and impairs well-being and health. While these theories help to explain why exposure to bullying can damage people's well-being and allow for the possibility that responses to bullying might vary (e.g. people's use of coping strategies could shape strain responses under the Transactional Theory of Stress), such theories are somewhat limited in application when focusing on moderating factors. As our review reveals, researchers have studied a large range of moderating factors (e.g. coping methods,

demographic variables, organisational processes, leadership, climate/culture), but many of these factors could not be reasonably explained with reference to such theoretical frameworks, as they are too narrow in focus.

An alternative approach that has been used to explain why workplace bullying is linked to poor well-being, which we favour here, is the JD-R model (Bakker & Demerouti, 2007). The JD-R model proposes a broad set of principles that account for how job-related factors can either mitigate or exacerbate the negative impact of other aspects of one's job, such as workplace bullying. These broad principles can accommodate a variety of factors that are relevant across people, work groups, and organisations (Lee et al., 2020). This makes the theory more flexible than other explanatory models (Schaufeli & Taris, 2014), as it is wide-ranging enough to encompass the diverse factors that have been studied as bullying moderators.

According to the JD-R model, "job demands' are the physical, psychological, social, or organisational aspects of a job, which require sustained effort. Through this necessitation of sustained effort, job demands exhaust employees' mental and physical energy and in turn result in psychological and/or physical ill-health (Bakker & Demerouti, 2017). In application to workplace bullying, researchers conceptualise bullying as a job demand as it requires targets to exert high levels of cognitive and emotional effort to deal with the situation, thereby explaining why it has negative well-being consequences (Høprekstad et al., 2019; Law et al., 2011; Ng et al., 2021).

The JD-R model further proposes the existence of "job resources', which are the aspects of a job that are functional in achieving work goals (Bakker & Demerouti, 2017). According to the JD-R model, job resources buffer the impact of job demands on well-being because they "*can reduce the tendency of organizational properties to generate specific stressors, alter the perceptions and cognitions evoked by such stressors, moderate responses that follow the appraisal process, or reduce the health-damaging consequences of such responses*" (Bakker et al., 2005, p. 171). Thus, the JD-R offers resources as a broad set of factors that ought to mitigate the negative effects of exposure to workplace bullying. The JD-R further allows for the prospect that working conditions might exacerbate the ill-effects of bullying, via recognition of demand accumulation, such that demands can interact with one another to deplete an individual more intensely (Ng et al., 2021; van Woerkom et al., 2016). The so-called "Demand x Demand" interaction occurs when an individual is faced with more than one demand and must therefore expend even more energy to cope with the situation, leading to a more detrimental impact.

While the JD-R model has focused primarily on aspects of the job that either cause, mitigate, or exacerbate poor well-being, its principles can apply beyond job characteristics. That is, demands can exist beyond one's job or working situation (e.g. family demands) and as broader theories recognise (e.g. Hobfoll's, 1989, Conservation of Resources theory), resources can also operate outside of work (e.g. partner support). In order to make sense of the different forms that resources (and demands) can take, Lee et al. (2020) developed a taxonomy to categorise such factors as either (a) home-based; (b) personal; (c) job-based; (d) social; or (e) organisational. *Home-based demands/resources* refer to factors from the home domain that support or constrain individuals' development and well-being. *Personal demands/resources* are characteristics of the individual that either contribute to or constrain optimal functioning. *Job demands/*

resources follow the original conceptualisation as per the JD-R, being conditions of the job itself. *Social demands/resources* refer to the interactions and relationships that one has with one's colleagues, which may be effortful (i.e. a demand) or supportive (i.e. a resource). Lastly, *Organisational demands/resources* refer to elements of the organisational environment that hinder/help achievement of work goals, increase/reduce job demands, and prohibit/stimulate personal growth, learning, and development (Lee et al., 2020).

Study aims

In this systematic review, we seek to: (a) identify factors that have been tested as moderators of the relationship between workplace bullying and well-being; (b) categorise moderators using the Lee et al. (2020) taxonomy; (c) evaluate evidence for which variables seem to play an important role as either a demand or resource in exacerbating or mitigating the relationship between bullying and well-being; and (d) provide insights for future research examining moderators of workplace bullying.

Methodology

Literature search

To maximise inclusivity when identifying relevant studies, we followed Nielsen and Einarsen's (2012) meta-analytic search strategy and adopted a broad approach by using search terms that could refer to bullying and other forms of workplace mistreatment, including *workplace harassment*, *workplace aggression*, *workplace mobbing*, *workplace victimization* and *workplace bullying*. We also used search terms that refer to other forms of workplace mistreatment, including *workplace incivility*, *abusive supervision*, *workplace violence*, *social undermining,* and *destructive leadership*. These terms were used to ensure that we would not miss any studies of workplace bullying that were presented under a different label (Hershcovis, 2011). Our strict inclusion criteria allowed confidence that the final sample included only studies pertaining to workplace bullying.

The mistreatment terms were combined with the following search terms, which were used to identify moderation studies: *moderat** (the * refers to all derivatives of moderation, such as moderating, moderator, moderate); or *mediat**, *path*, *relationship,* and *association*. We included terms pertaining to mediation in our searches as, in some studies, moderators may have been combined with mediators (studies that only concerned mediation were removed from the sample). The search terms were entered into the PsycINFO, Web of Science, and Scopus databases, which produced a large number of articles that were then screened for inclusion. Given the large number of articles produced in the searches, the abstracts were initially evaluated to determine whether they met the inclusion criteria. If it seemed likely that a paper met the criteria, the article would be downloaded and read in full before a decision was made on inclusion. The searches were not restricted by the start date and ran up until the end of 2021. Therefore, studies published after 31st December 2021 are not included in the review. In addition to identifying relevant papers using these search terms, we also checked the reference lists of previous review papers that have evaluated the impact of workplace bullying on

employee well-being (e.g. Nielsen & Einarsen, 2012; Nielsen, et al., 2016; Nielsen et al., 2020a; Rai & Agarwal, 2018a) to identify papers that examined an interaction effect.

Inclusion criteria

To be included in the review, papers had to meet several criteria. First, papers had to focus on workplace bullying. Papers that clearly examined a separate form of aggression, such as abusive supervision or incivility were excluded. When it was not clear from the title and abstract whether the study examined bullying (e.g. where terms such as victimisation or negative acts were used), the paper was read in full to determine whether the construct and measurement approach aligned with the definition of workplace bullying (Einarsen et al., 2020). Second, papers had to focus specifically on bullying in a more general sense, as opposed to bullying relating to characteristics protected by law in most countries, such as racial bullying or sexual harassment, as employees in such circumstances may have more effective coping options available, such as legal action. We also excluded papers focussing on particular forms of bullying, such as cyberbullying, as these may have different antecedents and outcomes than general bullying (Vranjes et al., 2020). Third, we stipulated that papers must focus specifically on workplace bullying and involve a sample of workers. This meant that studies of bullying in schools, the general population, or families were excluded.

Fourth, papers had to present one or more empirical studies involving primary quantitative datasets. Fifth, the study or studies within a paper had to examine *exposure to* workplace bullying as a *predictor* variable. We therefore excluded studies that focused on enacted workplace bullying (i.e. focusing on perpetrator rather than target experiences), bystanders, and studies that examined workplace bullying as an outcome variable. Sixth, studies had to examine some form of well-being as an outcome variable. Any disagreements about whether variables could be considered a well-being outcome were resolved in discussions among the research team. Seventh, studies had to include a moderator of the relationship between bullying and well-being or examine how bullying interacted with another variable to predict well-being. Studies involving moderated mediation or mediated moderation were considered for inclusion in the review, as parts of those models may capture the moderation process between exposure to bullying and a well-being outcome. To be included, these studies needed to examine moderation of the direct relationship between bullying and well-being.

Eighth, papers had to be published in a peer-reviewed journal. Unpublished theses and conference papers were not included in the review as they may be of lower methodological quality than published papers (Nielsen & Einarsen, 2012). Furthermore, unpublished studies that can be located may not be representative of all unpublished studies (Nielsen & Einarsen, 2012). Finally, we only included papers that were written in English.

Selection of relevant articles

The searches were conducted by the first, second, and third authors. The searches produced 13,073 articles across databases, which were screened for inclusion. After the removal of duplicates and the inclusion of studies from review papers, we identified 324 empirical articles on workplace bullying which potentially met the review criteria.

These studies were read in full to determine whether they could be included in the study. After removing studies that failed to meet one or more of the inclusion criteria, 68 articles remained. As several articles included more than one test of moderation, we extracted each unique moderation test from papers that met the review criteria. In total, there were 209 moderation tests, of which 92 (44%) were significant at the $p < .05$ level (56 reported significant buffering effects; 28 reported significant exacerbating effects; six effects were dependent on gender/nationality, and two effects depended on the severity of bullying). Figure 1 details the selection process.

To determine whether the moderators were more or less effective in relation to a particular form of well-being, we categorised well-being outcomes as either physical, psychological, or organisational. When it was not obvious whether a variable represented a physical, psychological, or organisational outcome, the measurement items were consulted to determine the most appropriate category. Analysis of the 209 moderation relationships revealed that 49 (23.5%) involved physical outcomes, 141 (67.5%) involved psychological outcomes, and 16 (7.7%) involved organisational outcomes.

Assessment of study quality

The quality of the studies included in the review was assessed using an adapted version of a coding checklist previously developed to evaluate studies included in systematic reviews and meta-analyses on workplace bullying (Nielsen, et al., 2016; Nielsen et al., 2020a). The checklist includes ten items on sampling approach, response rate, representativeness, selection bias, sample size, bullying measure, statistical methods, demographic covariates, work environment covariates and temporal design. Scores on the checklist varied between zero (lowest possibly quality) and ten (highest possible quality). Scores from zero to three are considered low quality, those from four to six are moderate quality and scores from seven to ten are high quality.

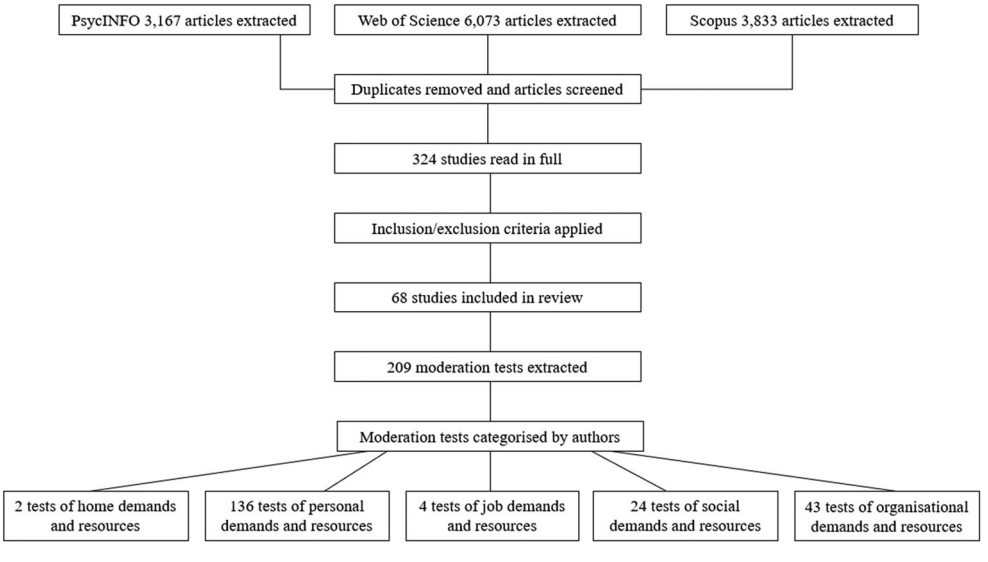

Figure 1. Search Procedure and Categorisation Process.

The quality assessments were performed by the first and third author. The interrater agreement of study quality was 72.1% and evaluation of Cohen's kappa revealed moderate levels of agreement ($\kappa = .50$). Disagreement regarding study quality was resolved through discussions between raters to enable the reporting of quality scores. The quality of the reviewed studies ranged from three to ten with a mean score of 6.32 (*Standard deviation* = 1.76). The assessment revealed that most studies were cross-sectional, used non-probability sampling methods (e.g. convenience or snowball sampling), and generally did not report a response rate. However, most studies did use an appropriate bullying measure, obtained a sample size appropriate for detecting a large moderation effect with 90% power (Shieh, 2009), and controlled for meaningful covariates.

Results

The 68 studies included in the review were published between 2001 and 2021, with 42 published from 2016 onwards. Most studies (37 of 68) were conducted in Europe (Norway = 18; Denmark = 5; Sweden = 4; Italy = 2; Spain = 2; Finland = 1; France/Greece = 1; Netherlands = 1; Poland = 1; United Kingdom = 1; Multiple European Countries = 1), 13 were conducted in Asia (Pakistan = 4; China = 2; India = 2; Israel = 1; Russia = 1; South Korea = 1; Southeast Asia = 1; Taiwan = 1), nine were conducted in Oceania (Australia = 7, of which 3 involved samples from another nation; New Zealand = 2), five were conducted in Africa (Ghana = 2; Egypt = 1; South Africa = 1; Zimbabwe = 1), and four were conducted in North America (Canada = 3; USA = 1).

Regarding bullying measurement, 44 of the 68 studies used a version of the Negative Acts Questionnaire (NAQ). These included the original NAQ (Einarsen & Raknes, 1997, 11 studies), the revised NAQ (NAQ-R; Einarsen et al., 2009, 20 studies), and the shortened NAQ (S-NAQ; Notelaers et al., 2019, 13 studies). Together, these studies reported a total of 131 tests of moderation, 45.8% of which were significant. A different behavioural questionnaire, such as the *Escala de Abuso Psicológico Aplicado en el Lugar de Trabajo* (EAPA-T 12; Escartín et al., 2010) or the *Cuestionario de Acoso Psicológico en el Trabajo* (CAPT; Moreno-Jiménez et al., 2005), was used in nine studies; 32 moderation tests, of which 43.8% were significant. The remaining studies used a definitional self-report question providing a definition of bullying and asking participants whether or not they believed they were victims of bullying (12 studies; 22 moderation tests of which 40.9% were significant), or a self-report question without a definition (three studies; 24 moderation tests of which 37.5% were significant).

Of the 68 studies, 46 used a cross-sectional design, reporting 155 tests of moderation, of which 41.9% were significant. The remaining designs were time-sensitive (including 18 time-lagged studies, three prospective studies, and one diary study) and reported 54 tests of moderation, of which 50% were significant.

Regarding study quality, four studies were rated low quality; these reported nine tests of moderation of which 33.3% were significant. Twenty-nine studies were rated as being of moderate quality, reporting a total of 109 moderation tests, of which 40.4% were significant. The remaining 35 studies were rated as being high in quality, reporting a total of 91 tests of moderation, of which 49.5%% were significant. A descriptive summary of the reviewed articles is presented in Table 1.

Table 1. Descriptive Summary of Included Studies.

Study	Country	Design (waves, time lag, study duration)	Bullying Measure	*N*	Quality Score	Study Context
Aarestad et al. (2021)	Norway	Cross-sectional	NAQ-S	675	7	Outpatients
Ahmad and Kaleem (2019)	Australia / Pakistan	Cross-sectional	NAQ-R	627	6	Higher Education
Allen et al. (2015)	Australia	Cross-sectional	Quine's (1999) measure	762	6	Nursing
Annor and Amponsah-Tawiah (2020)	Ghana	Cross-sectional	NAQ-R	631	8	Various
Bernstein and Trimm (2016)	South Africa	Cross-sectional	NAQ	100	4	Construction
Blomberg and Rosander (2019)	Sweden	Cross-sectional	NAQ-R	1,383	8	Government
Bond et al. (2010)	Australia	Longitudinal (two wave, 14 months)	NAQ	139	4	Police Officers
Buonomo et al. (2020)	Italy	Cross-sectional	Two items from COPSOQ II	860	5	School Principals
Carroll and Lauzier (2014)	Canada	Cross-sectional	NAQ	249	4	Various
Casimir et al. (2012)	Australia / Uganda	Cross-sectional	NAQ	335 & 296	5	School Teachers
Clausen et al. (2019)	Denmark	Longitudinal (various lags)	Definitional self-report item	24,538	9	Various
Conway et al. (2016)	Denmark	Longitudinal (two wave, two years)	Definitional self-report item	1,331	8	Various
Cooper-Thomas et al. (2013)	New Zealand	Cross-sectional	NAQ-R	727	4	Healthcare
Dåderman and Basinska (2021)	Sweden	Cross-sectional	NAQ-R	324	4	Various
Dehue et al. (2012)	Netherlands	Cross-sectional	Dutch Leidse Mobbing Scale-II (LEMS-II)	361	8	Various
Djurkovic et al. (2006)	Australia	Cross-sectional	Quine's (1999) measure	127	3	Higher Education
Einarsen et al. (2018)	Norway	Cross-sectional	NAQ-S	312	8	Transport
Fattori et al. (2015)	Italy	Cross-sectional	Definitional self-report item	755	3	Outpatients
Finchilescu et al. (2019)	Zimbabwe	Cross-sectional	NAQ-R	102	3	Nursing
Fox and Stallworth (2010)	USA	Cross-sectional	Workplace bullying checklist (WB-C)	779	4	School Teachers
Gardner and Rasmussen (2018)	New Zealand	Cross-sectional	NAQ-R	197	6	Vets
Glasø et al. (2011)	Norway	Cross-sectional	NAQ	462	5	Transport
Gupta and Bakhshi (2018)	India	Cross-sectional	Definitional self-report item	512	4	Various
Hansen et al. (2016)	Denmark	Longitudinal (three waves, two years)	Definitional self-report item	3,278 & 4,455	7	Various
Hayat and Afshari (2020)	Pakistan	Cross-sectional	NAQ-R	360	7	Hotel Sector
Hewett et al. (2018)	Southeast Asia	Cross-sectional	NAQ-R	3,217	5	Various
Høprekstad et al. (2019)	Norway	Diary (33 days)	NAQ-S	115	7	Naval Cadets

(*Continued*)

Table 1. Continued.

Study	Country	Design (waves, time lag, study duration)	Bullying Measure	*N*	Quality Score	Study Context
Høprekstad et al. (2020)	Norway	17 years	NAQ-S	536	7	Various
Hsu et al. (2019)	Taiwan	Cross-sectional	NAQ-R	310	6	Hotel Industry
Islam et al. (2021)	Pakistan	Longitudinal (two waves, 30 days)	NAQ-R	314	7	Nursing
Jacobsen et al. (2018)	Norway	Cross-sectional	NAQ-S	987	7	Various
Jahanzeb et al. (2020)	Canada	Longitudinal (three waves, eight weeks)	NAQ-S	332	10	Oil & Gas
Kakarika et al. (2017)	France / Greece	Cross-sectional	NAQ-R	275	8	Various
Law et al. (2011)	Australia	Cross-sectional	Definitional self-report item	220	7	Various
Lallukka et al. (2011)	Finland	Longitudinal (two wave, five to seven years)	Definitional self-report item	7,332		Various
Livne and Goussinsky (2018)	Isreal	Cross-sectional	NAQ-S	309 & 105	5	Healthcare
Loh et al. (2010)	Australia / Singapore	Cross-sectional	NAQ	317	6	Various
Majeed and Naseer (2021)	Pakistan	Longitudinal (three wave, varying intervals)	NAQ-R	321	6	Service Sector
Matthiesen and Einarsen (2004)	Norway	Cross-sectional	NAQ	102	6	Bullying Victims
Mikkelsen and Einarsen (2002)	Denmark	Cross-sectional	NAQ	224	7	Manufacturing
Moreno-Jiménez et al. (2007)	Spain	Cross-sectional	CAPT	183	8	Bullying Victims
Moreno-Jiménez et al. (2009)	Spain	Longitudinal (two waves, one month)	NAQ	523	8	Telecommunications
Nabe-Nielsen et al. (2016)	Denmark	Longitudinal (two waves, two years)	Definitional self-report item	7,650	7	Various
Naseer et al. (2016)	Pakistan	Cross-sectional	NAQ-S	262	6	Higher Education
Nielsen et al. (2020b)	Norway	Prospective (one year)	Definitional self-report item	10,627	7	Various
Nielsen et al. (2017)	Norway	Cross-sectional	NAQ-R	5,000	8	Various
Nielsen et al. (2013)	Norway	Cross-sectional	NAQ-R	1,017	7	Offshore Oil and Gas
Nielsen et al. (2019)	Norway	Longitudinal (two waves, two years)	Definitional self-report item	10,691	7	Various
Nielsen et al. (2008)	Norway	Cross-sectional	NAQ	221	5	Self-reported Targets
Park and DeFrank (2018)	South Korea	Cross-sectional	NAQ-R	221	6	Various
Rai and Agarwal (2018b)	India	Longitudinal (two waves, two weeks)	NAQ-R	835	7	Various
Reknes et al. (2016)	Norway	Longitudinal (two waves, one year)	NAQ-S	1,582	5	Nursing
Reknes et al. (2018)	Norway	Cross-sectional	NAQ-S	275	5	Oil
Reknes et al. (2019)	Russia	Cross-sectional	NAQ-R	1,474	3	Various
Rossiter and Sochos (2018)	United Kingdom	Cross-sectional	NAQ-R	222	4	Various
Shehawy (2022)	Egypt	Cross-sectional	Five item scale	980	5	Tourism

Slany et al. (2014)	Various	Cross-sectional	Did not report	32,708	9	Various
Spence Laschinger and Nosko (2015)	Canada	Cross-sectional	NAQ	875	6	Nursing
Sterud and Hanvold (2021)	Norway	Longitudinal (two waves, three years)	Definitional self-report item	3,654	10	Various
Sterud and Johannessen (2014)	Norway	Cross-sectional	Three item scale	6,758	8	Various
Strømholm et al. (2015)	Norway	Prospective (one year)	Self-report item	21,834	6	Various
Tagoe and Amponsah-Tawiah (2019)	Ghana	Cross-sectional	EAPA-T 12	543	7	Banking
Törnroos et al. (2020)	Sweden	Longitudinal (four waves, two years)	Self-report item	2355	9	Various
Vie et al. (2011)	Norway	Cross-sectional	NAQ-S	1,024	7	Transport
Voss et al. (2001)	Sweden	Cross-sectional	Definitional self-report item	3,470	7	Postal Employees
Warszewska-Makuch et al. (2015)	Poland	Cross-sectional	NAQ-R	820	4	Various
Wu et al. (2020)	China	Longitudinal (two waves, one month)	NAQ-S	248	8	Various
Yao et al. (2020)	China	Longitudinal (two waves, two months)	NAQ-S	327	8	Technology Sector

Note. In multiwave longitudinal studies *N* represents the final sample; Quality scores of 0–3 are rated as low quality, 4–6 are moderate quality; 7–10 are high quality.

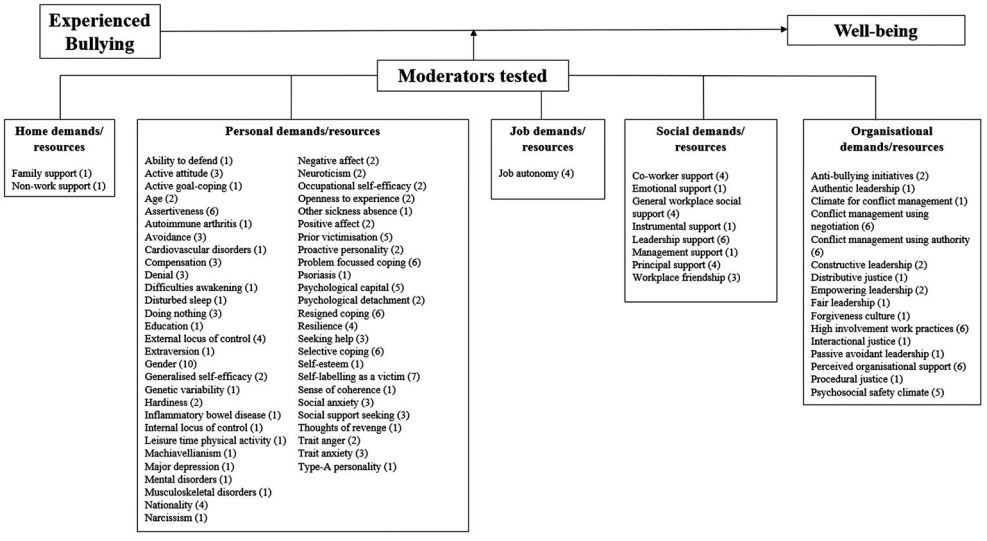

Figure 2. Moderators Organised by Category. Note. Brackets denote number of tests per moderator.

The moderation relationships were categorised according to Lee et al.'s (2020) taxonomy of resources and demands. The categorisation of specific moderators is shown in Figure 2, with the number of tests per moderator denoted in brackets. We discuss results from each category in turn.

Home demands and resources (n = 2)

There were only two tests of moderation within this category, both of which were significant, and both addressed social support received from outside the workplace. Non-work social support significantly mitigated the impact of bullying on psychological distress (Nielsen et al., 2020b), while family support significantly buffered the relationship between workplace bullying and burnout (Rossiter & Sochos, 2018).

Personal demands and resources (n = 136)

Within this category, there were 136 moderation tests, of which 49 were significant (36%). Of the significant tests, 20 had a buffering effect, 21 had an exacerbating effect, six tests were dependent on one's nationality and gender, and two tests found that the direction of the relationship depended on the severity of the bullying. The moderators within this category broadly describe person-level characteristics, such as demographics, personality, coping styles, and victimisation characteristics.

Twenty-six moderation tests involved demographic features, of which 10 were significant (38.5%). Gender was the most frequently tested factor, being included as a moderator on ten occasions. Only three significant results were observed, all indicating that bullied women take more sick leave than bullied men (Sterud & Johannessen, 2014; Strømholm et al., 2015; Voss et al., 2001). Cultural background was tested as a moderator on four occasions, with three signficant results observerd, all of which showed that

Australians experienced greater harm from bullying than individuals from Pakistan, Singapore, and Uganda (Ahmad & Kaleem, 2019; Casimir et al., 2012; Loh et al., 2010). Lower educational level, mental disorders, the LaLa genotype (a genotype influencing the efficacy of serotonin reuptake, which is thought to affect signalling in pain pathways), and sickness absence all exacerbated the impact of bullying on the only occasions they were tested as a moderator (Jacobsen et al., 2018; Sterud & Johannessen, 2014; Strømholm et al., 2015). Moreover, the following variables were non-significant as moderators on each of the occasions they were tested: age (2 tests); autoimmune arthritis (1); cardiovascular disorders (1); inflammatory bowel disease (1); major depression (1), musculoskeletal disorders (1); psoriasis (1; Fattori et al., 2015; Kakarika et al., 2017; Strømholm et al., 2015).

Regarding personality, 53 moderation tests were observed involving 19 significant findings (35.9%). Four tests involving resilience were reported, two of which showed that it significantly attenuated the relationship between bullying and well-being (Annor & Amponsah-Tawiah, 2020; Gupta & Bakhshi, 2018). However, in a recent study "personal" resilience exacerbated bullying, while "interpersonal" resilience was found to have a non-significant impact (Aarestad et al., 2021).

Machiavellianism, openness to experience, and sense of coherence all significantly buffered the impact of bullying, although they were each tested as moderators only once (Dåderman & Basinska, 2021., Nielsen et al., 2008). Hardiness, psychological detachment, proactive personality, and generalised self-efficacy each buffered bullying in one out of two moderation tests (Allen et al., 2015; Mikkelsen & Einarsen, 2002; Moreno-Jiménez et al., 2009; Park & DeFrank, 2018; Reknes et al., 2018). Assertiveness and social anxiety also mitigated the impact of bullying, but only once in three moderation tests (Moreno-Jiménez et al., 2007). Similarly, external locus of control (4 tests), occupational self-efficacy (4) and psychological capital (5) buffered bullying just once on the occasions they were tested as moderators (Gardner & Rasmussen, 2018; Livne & Goussinsky, 2018; Majeed & Naseer, 2021; Moreno-Jiménez et al., 2007; Reknes et al., 2019; Spence Laschinger & Nosko, 2015).

Type A personality and internal locus of control exacerbated the impact of bullying on the only occasion they were tested as moderators, while neuroticism exacerbated bullying in one out of two tests (Djurkovic et al., 2006; Jahanzeb et al., 2020; Reknes et al., 2019). A mixed pattern of results was observed in relation to trait anxiety, which was tested on three occasions in two studies. These studies found that it buffered bullying (Wu et al., 2020), exacerbated bullying, and had a non-significant effect (Glasø et al., 2011). Furthermore, the following variables were non-significant moderators of bullying: negative affect (2 tests), positive affect (2), trait anger (2), disturbed sleep (1), difficulties awakening (1), extraversion (1), narcissism (1), self-esteem (1), and thoughts of revenge (1; Dåderman & Basinska, 2021; Glasø et al., 2011; Matthiesen & Einarsen, 2004; Moreno-Jiménez et al., 2009; Nabe-Nielsen et al., 2016; Nielsen et al., 2013).

There were 44 tests of coping moderators, which we classified as either problem-focused or emotion-focused, following Folkman and Lazarus's (1980) established stress and coping theory. Problem-focused coping refers to approaches that seek to address the source of stress, while emotion-focused coping refers to approaches that seek to address the emotional responses to stress. Of the 44 tests, 16 involved problem-focused strategies, including assertiveness, and seeking help. Five of these 16 tests were

significant (31.3%), with four (25%) reporting a buffering effect, such that problem-focused coping attenuated the relationship between bullying and well-being (Bernstein & Trimm, 2016; Hewett et al., 2018., Reknes et al., 2016). However, one exacerbating relationship was reported, whereby targets of persistent bullying reported *higher* levels of psychological strain when they sought to find a solution to their problem (Hewett et al., 2018). The remaining 28 tests involved emotion-focused strategies, including avoidance, denial, and emotional regulation, with only eight of these tests (28.6%) reaching significance. All eight significant tests found that emotion-focused strategies exacerbated the negative relationship between workplace bullying and well-being (Bernstein & Trimm, 2016; Dehue et al., 2012). Therefore, emotion-focused coping appears to underlie a demand accumulation effect, wherein its use causes functioning and controlling one's environment to become more effortful.

Victimisation characteristics pertained to whether targets self-labelled themselves as bullying victims, whether they could defend themselves, or whether they had had prior victimisation experiences. Collectively, there were 13 moderation tests, of which six were significant (46.2%). Inconclusive results were observed for all moderators in this category. Self-labelling as a bullying victim was examined as a moderator in seven tests, but only significantly influenced the relationship between bullying behaviours and well-being twice (28.6%). In these tests, self-labelling was assessed as a moderator, in that it was expected that labelling oneself as a victim would exacerbate the impact of bullying behaviours. One test found that self-labelling had little impact when people were frequently bullied, but it had a small protective influence at lower levels of exposure (Hewett et al., 2018). However, another test found that self-labelling exacerbated bullying behaviours (Vie et al., 2011).

Prior victimisation was tested as a moderator on five occasions in two separate studies conducted by Høprekstad and colleagues (2019; 2020). In one of these studies, prior victimisation exacerbated the impact of bullying in two out of three moderation tests (Høprekstad et al., 2019). However, in the other study, it buffered the impact of bullying on both occasions it was tested (Høprekstad et al., 2020). Perceived ability to defend oneself from bullying was examined as a moderator in one test, which found that it buffered bullying at low levels of exposure but exacerbated it at high levels of exposure (Nielsen et al., 2017).

Job demands and resources (n = 4)

Only one study examined the impact of job-related factors as moderators of bullying. Livne and Goussinsky (2018) found that job autonomy significantly mitigated the impact of bullying on depersonalisation and emotional exhaustion in two out of four moderation tests (50%), which suggests that it has potential to act as a job resource.

Social demands and resources (n = 24)

There were 24 moderation tests within this category, of which 17 were significant (70.8%). Five of the 17 significant tests reported that social factors exacerbated bullying (29%), while the remaining 12 reported a buffering effect (70.6%). The tests of moderation in this category either pertained to different forms of social support or workplace

friendship. The social support came from a range of different sources, including leaders (11 tests), co-workers (4), or general/unspecified workplace sources (general workplace social support; 4), while two specific types of support were examined: emotional and instrumental. Workplace friendship was examined as a moderator on three occasions.

The most conclusive evidence was found in relation to co-worker support, which mitigated the impact of bullying on all four occasions it was tested as a moderator (Blomberg & Rosander, 2019; Nielsen et al., 2020b; Rossiter & Sochos, 2018; Warszewska-Makuch et al., 2015). Social support from unspecified workplace sources (general workplace social support) also significantly buffered the relationship between bullying and well-being on three out of four occasions (Carroll & Lauzier, 2014; Finchilescu et al., 2019; Rossiter & Sochos, 2018). Similarly, workplace friendship significantly buffered the impact of bullying on two of three occasions (Hsu et al., 2019; Rai & Agarwal, 2018b). Therefore, a strong body of evidence suggests that having workplace friendships, supportive colleagues, and more general workplace social support are social resources that limit the extent to which targets experience harm as a result of bullying experiences. Interestingly, leadership-specific support showed mixed effects, as it exacerbated the impact of bullying in four moderation tests (Fox & Stallworth, 2010), buffered bullying in two tests (Clausen et al., 2019; Nielsen et al., 2020b), and was non-significant in five tests (Nielsen et al., 2019; Rossiter & Sochos, 2018; Warszewska-Makuch et al., 2015)

Receipt of distinctive types of support also had divergent implications. Rossiter and Sochos (2018) reported that, while receiving instrumental support mitigated the impact of bullying, emotional support exacerbated the relationship between bullying and well-being. However, as each type of support was only tested on one occasion, these findings are only suggestive of a particular pattern.

Organisational demands and resources (n = *41*)

There were 43 moderation tests within this category, of which 22 were significant (51.2%). Twenty of the 22 significant tests (90.9%) buffered the impact of bullying, while two exacerbated it. The moderators in this category referred to organisational practices (20 tests), climates and cultures (7), leadership styles (7), perceived organisational support (6), and organisational justice (3).

Strong evidence emerged that climate or cultural characteristics mitigate the impact of bullying. Psychosocial safety climate buffered the impact of bullying on all five occasions it was tested as a moderator (Bond et al., 2010; Law et al., 2011; Tagoe & Amponsah-Tawiah, 2019). Similarly, a climate for conflict management (Einarsen et al., 2018) and a forgiveness culture (Yao et al., 2020) both buffered bullying on the only occasions they were tested as moderators.

Organisational justice also appeared to be a resource that can attenuate the impact of bullying, as Hsu et al. (2019) found that interactional, distributive, and procedural justice each buffered the impact of bullying on employee well-being (each were tested once). In addition, findings on perceived organisational support indicate that it is an organisational resource, in that it buffered the relationship between workplace bullying and well-being on three of the six occasions it was examined as a moderator (Cooper-Thomas et al., 2013; Gardner & Rasmussen, 2018; Hayat & Afshari, 2020).

The findings on organisational practices were more mixed. Both anti-bullying initiatives (two moderation tests; Cooper-Thomas et al., 2013) and high involvement work practices (six moderation tests; Törnroos et al., 2020) buffered bullying on half of the occasions they were tested. Moreover, conflict management using negotiation mitigated the impact of bullying on two of six occasions (Törnroos et al., 2020). In comparison, conflict management using authority exacerbated the relationship between bullying and well-being, albeit in only one out of six moderation tests (Törnroos et al., 2020).

Six different leadership styles were examined as moderators: constructive (2 tests), empowering (2), authentic (1), fair (1), and passive avoidant leadership (1). However, only two significant tests were observed. Empowering leadership, which involves perceptions that a supervisor encourages expression and decision making, buffered the ill-effects of bullying on one occasion (Shehawy, 2022), whereas passive avoidant leadership (perceptions that the leader does not engage in leadership activity) exacerbated them (Islam et al., 2021).

Well-being outcome types

Overall, more significant moderation tests were observed in relation to organisational well-being (52.6% of tests were significant) than psychological (46.1% significant) and physical (36.2% significant) well-being outcomes. Some patterns also emerged in relation to the effectiveness of different moderator classes across the well-being outcome types. Personal demands/resources had a seemingly lesser impact as moderators on organisational well-being outcomes (11.1% of tests were significant) than for physical (38.7% significant) and psychological (35.9% significant) well-being outcomes. In contrast, social demands/resources were highly predictive of organisational outcomes (80% significant) but slightly less predictive of psychological outcomes (71.4% significant) and physical outcomes (60% significant). Similarly, organisational demands/resources were highly predictive in tests involving organisational outcomes (100%) but were much less predictive of psychological outcomes (59.3% significant) and seemed to be a less powerful moderator for physical outcomes (16.6% significant). Home and job-related demands/resources were only tested in relation to psychological outcomes.

Discussion

The aim of this systematic review was to identify, categorise, and evaluate evidence for moderators of the relationship between workplace bullying and well-being. In doing so, we demonstrate which factors are effective and ineffective at protecting bullying targets. Below, we outline the key theoretical and practical implications from our review, before highlighting limitations and future research opportunities.

Theoretical implications

The first theoretical implication from our review is that workplace bullying appears to have a negative impact on people's well-being, largely irrespective of their personal characteristics. There is a relatively strong evidence base in relation to personal factors, which accounted for the overwhelming majority of moderator tests within our

review; despite their popularity, personal demands/resources were largely ineffective moderators of the bullying to well-being relationship. This finding challenges current thinking, which suggests that engaging adaptive coping responses (which we classed as a personal resource) may prove helpful in managing one's well-being in response to bullying (e.g. Zapf & Vartia, 2020). One reason why we failed to find much evidence of personal factors influencing the effects of bullying on well-being is suggested by Nielsen and Einarsen (2018), who argue that individual dispositions and coping efforts may protect targets in the early stages of bullying (when the situation may be considered more like conflict or incivility) but are less helpful later on in the bullying process, when acts are more severe and frequent.

A second theoretical implication is that leaders also appear to play relatively little role in shaping the consequences of exposure to bullying on well-being, whether in terms of the styles they adopt or their engagement in social support. This insight is notable because leadership has previously been argued to play a central role in managing bullying and employee well-being (Inceoglu et al., 2018; Woodrow & Guest, 2017). One explanation for this finding may lie in recent research which showed that the beneficial effects of ethical leadership disappeared when subordinates were subjected to co-worker social undermining behaviour (Mostafa et al., 2021). The authors explained that one of the "normative rules' of leadership is to protect subordinate welfare and that this normative rule is broken when leaders fail to prevent workplace mistreatment, such as bullying, producing poor well-being in subodinates, irrespective of the leader's behaviour or good intentions. Nevertheless, the mixed findings observed in relation to leader support do not necessarily mean that it is not helpful for targets, as the positive findings on the buffering role of general workplace social support and workplace friendship may relate to support that came from leaders.

A third theoretical implication is that, while personal and leadership factors do not seem to make much difference in protecting targets from the impact of bullying, social support and friendship from co-workers are more effective. We found relatively consistent evidence to suggest that the amount of social resources targets receive alters how much harm they experience. Although an increasing body of research suggests that social support is not always helpful, and can often make situations worse (Hobfoll et al., 2018), resource theorists suggest that social support becomes a particularly beneficial resource when it provides for situational needs (Hobfoll, 1989), such as when the demand and resource come from the same domain (Tuckey et al., 2012). In other words, the benefits of social support are realised when employees are faced with a socially challenging situation, such as bullying (van Woerkom et al., 2016). Drawing on the JD-R model, social support can make the experience of dealing with bullying less effortful in two main ways. First, passive support (e.g. empathy, sympathy, reassurance) provides temporary relief to the demands of the situation by meeting the target's needs for comfort, care, and contact (Rimé, 2009). Second, colleagues may provide active support (e.g. directly intervening to stop the bullying, seeking to resolve the conflict, standing up for the target publicly, Paull et al., 2012). If successful, these strategies prevent the reoccurance of bullying, such that it no longer acts as a demand.

A fourth theoretical implication is that access to organisational resources can also lessen the impact of bullying on targets. Psychosocial safety climate appears to be particularly important in this regard. In psychosocially safe climates, management prioritises

employee well-being over performance, systems are in place for employees to report poor psychological health, and safety signals provide information about resources that employees can access to provide respite, or relief from danger (Law et al., 2011). As such, when danger in the form of workplace bullying is present, employees can access resources to help them avoid developing psychological ill-health (Law et al., 2011). Since employees working in psychosocial safety climates can draw upon organisational resources, they do not have to rely as heavily on their own resources, which means that they do not spend as much effort dealing with the demand of bullying, and do not experience as much ill-health as a result. This may also explain why perceived organisational support attenuated the effects of bullying, as supportive organisations may have resources in place to help employees cope. These could include employee assistance programmes, conflict resolution procedures (e.g. moderation, mediation), complaints procedures, counselling, and support in finding therapy (Zapf & Vartia, 2020). Theoretically, it is notable that both social support and supportive organisational climates emerged as important resources for targets of bullying, as both factors limit targets' reliance on their own resources (which could already be depleted due to bullying exposure), and both provide avenues for the eventual resolution of the situation (colleagues can intervene, and supportive climates have resolution procedures in place).

A final theoretical implication regards the types of well-being affected by bullying and its moderators. We found that a higher proportion of significant findings were reported when organisational and psychological forms of well-being were measured as outcomes, with fewer significant findings reported in relation to physical well-being. It is possible that the limited number of longitudinal studies may be responsible for this finding, as physical well-being impairments are thought to take longer to develop than affective and attitudinal responses (Sonnentag & Frese, 2003). Conversely, it could also be the case that, although some factors might provide protection against "softer" forms of well-being, bullying will inevitably damage people's physical health. However, it should be noted that our analyses were descriptive and the limited number of moderation tests examining organisational and physical outcomes prohibit firm conclusions.

Practical implications

Our review provides practical implications for those seeking to minimise and manage workplace bullying. First, over half the moderation tests were non-significant, which underscores the importance of primary interventions that seek to prevent bullying occurring (Hershcovis et al., 2015). While our review highlights some factors that may mitigate the harmful impact of bullying, it is clear that managing bullying is likely to be less effective than preventing it. Our review found that psychosocial safety climates consistently buffered the impact of bullying, but such climates can also *prevent* bullying. Dollard et al. (2017) found that psychosocial safety climates predicted reduced bullying four years later, by (1) making clear that bullying will be punished, rather than rewarded or tolerated; (2) designing jobs to minimise characteristics related to bullying, such as role conflict, role ambiguity, job insecurity, and cognitive demands; and (3) implementing procedures for resolving conflicts before they escalate into bullying. Therefore, organisations that seek to implement a psychosocial safety climate may prevent bullying occurring as well as mitigating its harmful effects.

More generally, we found that personal factors have a less consistent impact as moderators of the effects of bullying than social and organisational factors. This suggests that secondary intervention efforts that seek to increase individuals' capacity to deal with bullying (e.g. communication training, assertiveness training) will be less effective than than interventions that take place at the unit (e.g. job redesign, team building) and organisational levels (e.g. conflict management procedures, employee assistance programmes).

A further prominent finding concerns the protective effects of socially supportive colleagues. Friendships at work have a range of beneficial effects, including social support, socialisation, and positive identity development (Pillemer & Rothbard, 2018). However, promoting employee friendships when virtual working is becoming more commonplace may be challenging, as fewer opportunities are available for positive interactions and informal conversations that build friendships. To remedy this, organisations and their leaders could consider creating buddy networks for employees, whereby employees have regaular virtual meetings with others in their network to share how they are feeling and to discuss non-work matters. This would enable colleagues to maintain personal connections and may provide a space for employees to discuss issues of concern.

Future research directions

Of the 68 studies included in the review, 42 were published from 2016 onwards, which indicates an upwards trend in conducting research on this topic. Our findings highlight several gaps in our knowledge which can inform the direction of future research.

First, we found that personal, social, and organisational demands/resources have received much more research attention than home and job demands/resources. This is notable because a high proportion of significant findings were observed in both home and job categories, which suggests that they hold promise for future research. Job-related factors in particular have often been examined as antecedents of bullying (Baillien et al., 2011) and our review suggests that they additionally play an important role as moderators, but more research is needed to confirm this.

Future research is also needed on the role that leaders play in supporting targets of bullying, as our review found that positive leadership styles did not generally influence the effects of bullying, while leader support had mixed effects. It is possible that many leaders are the perpetrators of bullying (Hoel et al., 2010), which may restrict clarity on the role they play in mitigating or exacerbating harm. It could also be the case that co-workers offer support and friendship earlier in the bullying process (perhaps because they are more likely to be aware of the occurrence of bullying-type behaviours), whereas leaders restrict their support to those who they believe are most in need of it, when the ill-effects of bullying have already emerged. Therefore, research designs that ask participants who enacted the bullying, that focus on concrete leader behaviours, rather than styles (see Hughes et al., 2018), and that examine the timing of their interventions and support (e.g. using longitudinal approaches) would be particularly informative.

Most moderation tests examined a psychological form of well-being as the outcome variable. More research is therefore needed on organisational and physical forms of well-being, which are underrepresented in the research literature. Related to this, Sonnentag and Frese (2003) note that physical strain reactions take longer to develop than psychological reactions, which further emphasises the need for more longitudinal

designs. The studies included in the review were overwhelmingly cross-sectional and our analyses showed that a higher proportion of significant findings were obtained when time sensitive designs were adopted, potentially because such designs allow for the emergence of effects of bullying and its moderators over time.

Finally, most studies included in the review were conducted in a European context (in particular, Norway and Denmark). Fewer studies were conducted on other continents and both the Americas and Africa were underrepresented in the sampled studies. Further research is needed to understand whether moderators identified as significant in one cultural context also moderate bullying in other cultural contexts and more cross-cultural comparisons will also be important. As we observed in the review, cross-cultural studies have only compared a small number of countries and there is a lack of understanding about which aspects of national culture might be responsible for any differences in well-being.

Limitations

A few limitations should be noted. First, we only included peer-reviewed studies published in English, which risks publication bias and may have limited the number of moderation relationships included in the review. Second, we sought to categorise the well-being variables according to whether they represented an organisational, physical, or psychological outcome. Whilst most of the variables in the review clearly conformed to one of these categories, others (e.g. salutogenic health, sickness absence, disability pensioning) could have been included in multiple categories, as they reflect health behaviours or states that could relate to physical, psychological, or even organisational complaints. Therefore, whilst we categorised these variables to best organise our findings, we recognise that they do not fit neatly into any one well-being category. Third, moderated regression is a low power test, which means that sample size can affect whether a significant finding is observed. However, Shieh (2009) found that the sample size required to detect a relatively large effect with 90% power is 137–154 cases. When evaluating the quality of the studies included in the review only six studies (involving 27 moderation tests) reported sample sizes less than 137. Of these 27 tests, nine were significant (33.3%), which is lower than the significance rate of 44% reported in the whole sample. However, it is only moderately lower, and the overwhelming majority of moderation tests (87.1%) were conducted on an appropriately sized sample.

Conclusion

The current study extends our understanding of the relationship between workplace bullying and employee well-being by systematically reviewing moderators of this relationship. By categorising moderators by type, it was possible to determine the factors that more consistently influenced this relationship. Our findings revealed that personal factors appear to have relatively little impact; bullying is detrimental to all irrespective of demographics, personality, and coping styles and behaviours. As such, secondary interventions targeted at changing how employees appraise and try to cope with bullying may not be particularly fruitful for those seeking to limit the damage caused by workplace

bullying. In contrast, social and organisational resources were most consistently supported as protective factors against the ill-effects of bullying on well-being. These factors may therefore be most promising to focus future intervention efforts on.

Acknowledgements

We would like to thank our late colleague Dr Christine Sprigg, who inspired and encouraged our interest in workplace bullying. She was a source of great support to us all and is greatly missed.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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