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Workplace bullying: an examination of power and perpetrators

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Abstract

Purpose – The purpose of this paper is to apply the concept of power imbalance to explain workplace and demographic characteristics associated with bullying by different perpetrators in the healthcare sector.

Design/methodology/approach – All 69,927 members of the Australian Nursing and Midwifery Federation (Victoria) were invited to participate in an online survey in 2014; 4,891 responses were received (7 per cent response rate). Participants were asked about their exposure to workplace bullying (WPB) by different perpetrators. The questionnaire addressed demographic characteristics and perceptions of workplace characteristics (workplace type, leading indicators of occupational health and safety (OHS), prioritisation of OHS, supervisor support for safety and bureaucracy). Analysis involved descriptive statistics and regression analyses.

Findings – The study found that the exposure of nurses and health workers to bullying is relatively high (with 42 per cent of respondents experiencing WPB in the past 12 months) and there are multiple perpetrators of bullying. The research revealed several demographic predictors associated with the different types of perpetrators. Downward and horizontal bullying were the most prevalent forms. Workplace characteristics were more important predictors of bullying by different perpetrators than were demographic characteristics.

Research limitations/implications – There are limitations to the study due to a low response rate and the cross-sectional survey.

Practical implications – Practical implications of this study emphasise the importance of focussed human resource strategies to prevent bullying.

Originality/value – The key contribution of this research is to draw from theoretical explanations of power to inform understanding of the differences between perpetrators of bullying. The study highlights the workplace characteristics that influence bullying.

Keywords Quantitative, Occupational health and safety, Workplace bullying, Power, Perpetrators, HR strategies

Paper type Research paper

Workplace bullying (WPB) has been recognised as an important social problem for over four decades (Einarsen *et al.*, 2011; Nielsen and Einarsen, 2012; Salin and Notelaers, 2017). Between 10 and 15 per cent of workers experience WPB (e.g. Keashly and Jagatic, 2011) and health workers such as nurses and personal carers experience much higher rates of WPB than do workers in other industries. An international review by Spector *et al.* (2014) found that on average 37 per cent of nurses have experienced WPB.

WPB is defined as:

[...] a situation in which one or more persons systematically and over a long period of time perceive themselves to be on the receiving end of negative treatment on the part of one or more persons, in a situation in which the person(s) exposed to the treatment has difficulty in defending themselves against this treatment. (Matthiesen and Einarsen, 2007, p. 735)

WPB is costly to the organisation and to the individual (Einarsen *et al.*, 2011; Nielsen and Einarsen, 2012), and it is one of the most difficult areas for human resource (HR) professionals to manage (Catley *et al.*, 2017; Cowan and Fox, 2015). The key contributions of the present research are: first, a focus on prevention of WPB, as prioritised by Catley *et al.* (2017). Second, we investigate the relatively under-researched area of perpetrators of



bullying (Samnani and Singh, 2012). A small stream of studies (e.g. Baillien *et al.*, 2011; Balducci *et al.*, 2012; Hauge *et al.*, 2009; Matthiesen and Einarsen, 2007) has made important contributions by investigating WPB from the perspective of the perpetrators themselves. However, while it is known that a target may be victimised by a range of perpetrators (Zapf and Einarsen, 2011), little is known about the sources of bullying perpetrators and their interactions with targets of bullying. Finally, our research addresses Nielsen and Einarsen's (2012) call for a clearer theoretical foundation in the WPB research. Specifically our study first examines the impact of power imbalance in organisational relationships to explain associations between perpetrators and those who experience bullying. Second our study considers the impact of the broader workplace context and draws on Clegg's (1989) circuits of power argument that individuals are socially influenced by the surrounding systems of power that "control actions and fix rules" (Hutchinson *et al.*, 2010, p. 38).

Theoretical perspective: power in organisations

The concept of power is central to the definition of WPB (Einarsen *et al.*, 2011; Samnani and Singh, 2012), which identifies a power imbalance between the bullying perpetrator and the target (Branch *et al.*, 2013). Hutchinson *et al.* (2010, p. 25) have noted: "It is not possible to understand bullying without considering the concept of power, and yet power has received little systematic attention in the literature on bullying". However, the literature that has examined power and bullying has largely been conceptual, with relatively few empirical studies (Branch *et al.*, 2013; Hutchinson and Jackson, 2015).

Hoel and Salin (2003) discussed power dynamics as organisational antecedents to bullying, arguing that bullying relationships should be understood within the social work context. WPB may arise from legitimate, or formal, sources of organisational power but may also emerge from perceptions of powerlessness generated from informal sources of organisational power that are social, physical or psychological. Drawing on the argument that power imbalance in social relations is a central mechanism in the experience of bullying, the first section of the literature review examines interpersonal power explanations for the impact of different perpetrators of WPB, as well as the impact of the demographic characteristics of those who experience bullying. The second section of the literature review shifts focus away from an examination of interpersonal explanations of bullying to consider the workplace context. The discussion incorporates Hutchinson *et al.*'s (2010) argument that explanations of interpersonal conflict have to consider surrounding systems of power, as outlined in Clegg's (1989) circuits of power argument.

Perpetrators of workplace bullying

Although Samnani and Singh (2012) noted in their review of 20 years of WPB research that there is a critical need for research to improve understanding of bullying perpetrators, there has been relatively little theoretical development or empirical study of bullying by different perpetrators within a work context.

Downward bullying

Applying the theoretical perspective of power imbalance, Hutchinson and Jackson (2015) have argued that imbalance connected with formal power can explain downward bullying where a supervisor bullies a worker. From this perspective, managers have legitimate power arising from the formal power structure of the organisation and downward bullying can be viewed as an abuse of this power by a manager (Einarsen *et al.*, 2011). Downward bullying has been shown to be particularly acute in the health sector and specifically among nurses (Castronovo *et al.*, 2016).

Horizontal bullying

While formal power imbalance provides a theoretical explanation for downward bullying, it could also be argued to contribute in a more indirect way to horizontal bullying by a co-worker, or group of co-workers. For example, it could be argued that in order to cope with their sense of powerlessness in the healthcare hierarchy, nurses may engage in displacement where their aggression is redirected onto a less powerful substitute target, typically a junior nurse (Laschinger *et al.*, 2010).

Hoel and Salin (2003) further developed the notion of both formal and informal power imbalance, suggesting that power inequity may also arise among co-workers of similar age and status where the WPB perpetrator(s) have access to informal sources of power that are social, physical or psychological in nature. Thus, the bully (or bullies) exploits a situation in which the target feels dependent on the workgroup. Empirical support for this line of argument has been shown in several studies that have found that many novice nurses experience horizontal bullying (Berry *et al.*, 2012) and primarily from more experienced co-workers (McKenna *et al.*, 2003).

Upward bullying

As power imbalances may result not only from the formal organisational structure but also from social, physical or psychological sources, WPB could arise in situations where a subordinate or group of subordinates has enough power to bully a supervisor or manager (Salin, 2003; Zapf *et al.*, 2003). While this has been discussed in conceptual terms, upward bullying has been under-researched.

Inward bullying

Studies of workplace incivility and aggression have found evidence of behaviour that includes bullying from external sources such as patients and visitors (Hershcovis and Reich, 2013). Specifically, in healthcare workplaces such as aged care or mental health facilities where nurses and health workers have prolonged contact with patients, the potential arises for patients or their visitors to perpetrate inward bullying (Balducci *et al.*, 2012). Drawing from this research, it could be argued that in such circumstances the perpetrator may have access to informal sources of power that are social, psychological or physical and could exploit a situation in which the bullying target feels powerless.

Global studies have shown alarming levels of WPB experienced in healthcare (e.g. Spector *et al.*, 2014), and recognise WPB as an area that HR professionals struggle to prevent (Cowan and Fox, 2015). Knowledge of the role of different perpetrators of WPB would, however, inform effective HR strategies to prevent WPB. Based on theorisation of power and power imbalance, as well as the findings of previous research on WPB, our first hypothesis is as follows:

- H1.* Bullying experienced by nurses and health workers will be perpetrated by four sources: managers, co-workers, subordinates and patients and their families.

Demographic factors associated with the experience of bullying

It is important to understand more about the demographic characteristics of WPB targets because these characteristics could be visible signals of an individual's formal or informal power relative to others in their workplace (Hoel and Salin, 2003). Hence, our research investigates potential associations among three demographic characteristics (gender, age and job role) and WPB by different perpetrators.

Gender

First, with respect to gender, it could be argued that women hold relatively less power than do men, particularly in male-dominated workplaces. A lack of power may leave women more vulnerable than men to WPB. Support for this argument has been shown in several studies that have found women to be more likely to experience WPB than men (Zapf *et al.*, 2003). The nursing profession is, however, female dominated (Hutchinson *et al.*, 2010) and theoretically the dominance of women in the nursing workforce might mean that the formal and informal power balance could be in favour of women. Hence, it is expected that men would be more likely than women to experience WPB in this context. Hence, our second hypothesis states:

H2a. Among nurses and health workers, men will be more likely than women to experience bullying.

Age

Second, with respect to age, theoretically it would be expected that nurses with less power in the workplace, such as novice nurses, would be more likely to experience bullying. Consistent with this line of argument, some studies have found that the experience of horizontal bullying is prevalent among novice nurses who have less formal power (Berry *et al.*, 2012; McKenna *et al.*, 2003). Hence, we hypothesise:

H2b. Among nurses and health workers, younger workers are more likely than older workers to experience bullying.

Job role

Third, although previously largely ignored, a theoretical argument can be made that job role may be important because workers with less formal power in the healthcare hierarchy would be more likely to become WPB targets (Laschinger *et al.*, 2010). As Hutchinson *et al.* (2010) have noted, healthcare workplaces typically have hierarchical organisational structures with medical qualifications outranking nursing and registered nurses or midwives outranking those with fewer qualifications such as personal carers. As a consequence, we hypothesise:

H2c. Among nurses and health workers, those in job roles of lower status in the organisational hierarchy will be more likely than those with higher job role status to experience bullying.

The workplace context: workplace antecedents of bullying

Since Leymann's (1996) early work in this field, research applying the work environment perspective has shown evidence that workplace factors (e.g. work constraints) contribute significantly to the prediction of WPB, over and above individual factors (see Bowling and Beehr, 2006, Castronovo *et al.*, 2016; Samnani and Singh, 2012). Workplace factors that are antecedents of bullying are important to understand to assist in prevention, yet are relatively under-explored in the nursing and healthcare context (Hutchinson and Jackson, 2015). In terms of potential complexity, Salin (2003) explained that within the range of work environment factors, no single factor is likely to be the cause of WPB; there typically will be multiple antecedents.

Theoretically, the argument for investigating workplace characteristics is consistent with Hutchinson *et al.*'s (2010) analysis of WPB that goes beyond interpersonal conflict interpretations to incorporate broader organisational power dynamics, specifically for nursing. "Nursing is said to be characterised by a culture of obedience, servitude, dedication, and adherence to hierarchy [...] These paramilitary influences are said to have fostered a work culture where insult and humiliation are considered part of on-the-job training" (Hutchinson *et al.*, 2010, pp. 27-28). Alongside the impact of the traditional command

structure in nursing, Hutchinson and Jackson (2015) have noted that bureaucratic healthcare systems that are focussed on efficiency, predictability and calculability reinforce the emphasis on following orders and instrumental reasoning that may overwhelm concerns for care among nurses and health workers. They draw from Clegg's (1989) circuits of power argument where individuals are socially influenced by the surrounding systems of power that "control actions and fix rules" (Hutchinson *et al.*, 2010, p. 38). The organisational context for nurses and other health workers may shape the rules of social relationships such that bullying becomes tolerated, normalised and viewed as acceptable (Salin, 2003).

Workplace types

The healthcare sector includes a wide range of workplace types, from public hospitals offering acute care services, to mental health, aged care facilities and community care services. These workplace types differ according to the intensity of nursing care required by a patient, organisational structures and resultant power dynamics that underpin WPB (see Hutchinson and Jackson, 2015). Although McKenna *et al.* (2003) found that WPB among nurses was prevalent across a wide range of workplace types, the most common location for WPB was an inpatient ward, compared with workplaces such as community services. Hutchinson *et al.* (2010) also highlighted WPB prevalence in public hospital workplaces. Hence, our next hypothesis is as follows:

H3. WPB will be higher in public hospitals compared to other healthcare settings.

To build understanding of the power circuits within different workplaces, this research not only investigates types of workplaces but also salient workplace characteristics as antecedents to WPB. Samnani and Singh's (2012, p. 585) review of WPB antecedents found that "organisations characterised by strong power imbalances can create conditions conducive to workplace bullying and result in the institutionalisation of such behaviours". Specifically, they noted the relevance of leadership, culture, policies and situational factors, such as change or restructuring, to the prevalence of WPB.

Organisational responsibilities and policy associated with WPB are typically handled by the HR function (Beirne and Hunter, 2013) through workplace strategies that are focussed on occupational health and safety (OHS). In Australia, for example, an employer who allows WPB is not meeting a duty of care responsibility to provide a safe workplace under OHS legislation (Australian Human Rights Commission, 2011). However, there has been surprisingly little exploration of the potential role of OHS management in mitigating WPB. Drawing from the circuits of power argument, and Samnani and Singh's (2012) arguments for organisational-level antecedents to bullying, four workplace factors have been identified that are focussed on OHS to investigate associations with the experience of WPB by different sources of perpetrators.

Leading indicators of occupational health and safety

Key features of social integration circuits of power include the tolerance and normalisation of WPB in work teams (Hutchinson *et al.*, 2010). Such a context, where inappropriate behaviour is promoted, has been associated with poorer performance on leading indicators of OHS. These indicators include proactive organisational initiatives such as providing equipment to perform work safely, and supporting employee empowerment with regard to OHS (Sheehan *et al.*, 2016). In combination, these are indicators of an organisation's OHS leadership, culture and policies. In workplaces where there was more effort invested in leading indicators, Sheehan *et al.* (2016) found fewer work-related injuries and illnesses. Based on Hutchinson *et al.*'s (2010) arguments, an investment in leading indicators could similarly have bearing on experiences of WPB, by reducing tolerance of bullying behaviour and helping to prevent WPB. Hence, it is expected that the presence of OHS leading indicators will be negatively associated with WPB from all groups of perpetrators.

Prioritisation of OHS

Nurses and health workers are in “care-giving” occupations in which greater attention is often given to patient safety than to OHS (Spector *et al.*, 2014). However, management prioritisation of OHS relative to patient safety has been shown to be influential for OHS outcomes such as injuries and illness (Sheehan *et al.*, 2016). Consistent with Hutchinson *et al.*'s (2010) argument for the importance of the organisational context as a circuit for power in bullying relationships, it could be expected that there should be a lower incidence of bullying in workplaces where OHS is prioritised. Viewing this in terms of power, it is argued that management prioritisation of OHS will encourage staff to feel empowered to speak up about OHS rather than reinforce social relationship rules that condone and legitimise WPB. Therefore, it is expected that management prioritisation of OHS will be negatively associated with WPB from all groups of perpetrators.

Supervisor support for safety

Workers do not only work within organisational policies, they look at their experiences in their immediate group and work environment. As a consequence, their direct supervisor can play a role in bullying prevention by influencing socially appropriate rules and actions (Beirne and Hunter, 2013). WPB can develop when the supervisor is perceived as failing to provide a legitimate source of formal power that protects workers from WPB from co-workers or other perpetrators.

Conversely a supervisor who is unsupportive of OHS might become the target of upward bullying. Upward bullying may be a consequence of subordinates' resentment of managerial decisions or may be a response to workplace stressors. Upward bullying requires the positional power of a manager to be overcome by the bullying perpetrators (Zapf *et al.*, 2003). Therefore, it is expected that supervisor support for safety will be negatively associated with WPB from all sources of perpetrators.

Bureaucracy

It is proposed that higher levels of bureaucracy will be associated with higher levels of WPB because bureaucracy reinforces a structured power imbalance and reduces empowerment of individuals (Hage and Aiken, 1967). Salin (2003) has argued that a higher degree of bureaucracy may be associated with downward bullying, where a manager uses bullying mechanisms such as excessive enforcement of rules to remove unwanted persons from the workplace. Bureaucracy that is highly transactional and rule driven could have a negative impact on collegial relationships, giving rise to horizontal bullying. Bureaucracy that emphasises rules that prioritise patient safety and give less attention to OHS could lead to resentment by staff and result in upward bullying. Bureaucracy that disempowers staff and causes a lack of transparency could result in inward bullying. Therefore, it is expected that bureaucracy that reinforces a structured power imbalance will be positively associated with WPB from all groups of perpetrators.

This research aims to investigate the role of workplace characteristics in terms of the likelihood of experiencing WPB by different perpetrators and to understand the relative importance of demographic characteristics and workplace characteristics to WPB. We predict that employees who are employed within a more supportive workplace context will be less likely to report the experience of WPB compared to those working in environments that are more permissive with respect to bullying or aggression in the workplace. Hence, our next hypothesis is as follows:

- H4.* Nurses and health workers in workplaces with higher levels of OHS leading indicators, a greater prioritisation of staff safety, higher levels of supervisor support and lower levels of bureaucracy will be less likely to experience WPB.

Drawing on the work environment hypothesis (Leymann, 1996) and research that has shown workplace factors contribute significantly to the prediction of WPB, over and above individual factors (Bowling and Beehr, 2006, Castronovo *et al.*, 2016; Samnani and Singh, 2012), we predict that workplace contextual factors will have a greater influence on the likelihood that employees will experience WPB compared to individual characteristics. Hence, our final hypothesis is as follows:

- H5. Workplace characteristics will have a greater influence on the likelihood that nurses and health workers will experience WPB compared to individual characteristics.

Method

Sample and procedure

All 69,927 members of the Australian Nursing and Midwifery Federation (ANMF) in Victoria Australia were invited to participate in a survey about OHS. Responses were received from 4,891 members (7 per cent response rate) comprising 3,273 registered nurses (67 per cent), 1,055 enrolled nurses (22 per cent), 407 midwives (8 per cent) and 156 personal carers (3 per cent). Due to the anonymous nature of the survey, respondents could not be directly compared with non-respondents. Non-response bias was tested using wave analysis with comparisons between early responders (first two weeks, $n = 1,584$), middle responders (third week, $n = 2,054$) and late responders (last two weeks, $n = 1,253$) on the dependent variables. Comparing early and late responders is a common technique for testing non-response bias (Rogelberg and Stanton, 2007). χ^2 tests revealed two statistically significant differences between early, middle and late responders, although the differences were small in magnitude. Early (38 per cent) and middle (39 per cent) responders were more like to report bullying from managers ($\chi^2(2) = 20.7$, $p < 0.001$, Cramer's $V = 0.07$) compared to later responders (23 per cent). Early (35 per cent) and middle (40 per cent) responders were more like to report bullying from colleagues ($\chi^2(2) = 6.8$, $p = 0.033$, Cramer's $V = 0.04$) compared to later responders (25 per cent). These results suggest that the sample is not significantly biased but there may be a slight tendency for bullying to be over-estimated.

The project was approved by the university research ethics committee. The survey was piloted using a group of ten people including ANMF officials, a registered nurse, a midwife and subject matter experts. The survey was conducted online via an e-mail sent by the ANMF OHS officer that included a link to the survey. Two reminder e-mails were sent two weeks and four weeks after the initial e-mail invitation. All respondents were assured of confidentiality and anonymity. No incentives were offered for participation. Analysis of the responses shows that the survey took, on average, 25 min to complete.

Measures

This study was part of a larger OHS survey conducted with nurses and health workers. The survey addressed a range of OHS topics including hazards, workload and job characteristics. The measures relevant to WPB were placed towards the centre of the survey.

Perpetrators of WPB. Two single-item measures of the frequency of WPB and likelihood of WPB by different perpetrators were included. The self-labelling method was used to measure frequency of WPB, consistent with approaches used in earlier studies (Nielsen and Einarsen, 2012). The self-labelling method presents a definition of WPB and then respondents are asked to answer a single-item question about how frequently they have been bullied within a specific time period (Nielsen *et al.*, 2011). Respondents were asked: "Workplace bullying involves repeated victimising, humiliating, intimidating or threatening behaviour directed towards a worker or group of workers. Have you experienced bullying at your workplace in the last 12 months?" Responses were: 1 – no, never, 2 – yes a few times, 3 – yes monthly, 4 – yes weekly and 5 – yes daily.

To capture WPB by different perpetrators, respondents who answered “yes” to the first question were asked: “From whom have you experienced bullying at your workplace during the last 12 months?” The response options were coded as downward bullying (managers/supervisors), horizontal bullying (co-workers), upward bullying (subordinates) and inward bullying (patients and their visitors).

Demographic characteristics. The survey included questions for demographic characteristics: gender, age and job role. The categories for job role were identified via consultation with the ANMF.

Workplace characteristics. After consultation with the ANMF, five measures of workplace context were included: workplace type, leading indicators of OHS, prioritisation of OHS, supervisor support for safety and bureaucracy. Leading indicators were measured using a revised version of the Organizational Performance Metric developed at the Institute for Work and Health, Ontario Canada (IWH-OPM: Institute for Work & Health (IWH), 2011, 2013) called the Organizational Performance Metric-Monash University (OPM-MU: Shea *et al.*, 2016) which contains eight items. Prioritisation of OHS (e.g. management does not place the same priority on staff health and safety as it does on patient health and safety) is a three-item scale that was reversed coded so that higher scores indicated a greater prioritisation of OHS (Shea *et al.*, 2016). Supervisor support for safety (Lauver *et al.*, 2009) is a three-item scale that measures supervisor willingness to support good OHS practices. Bureaucracy was measured using a three-item scale that assesses the relative emphasis on rules and “red tape” within an organisation (Rafferty and Griffin, 2004). The measures are rated on a five-point scale from “strongly disagree” (1) to “strongly agree” (5) and all displayed very good reliability (see Table II).

Statistical analysis

SPSS 24.0 (IBM Corporation, 2016) was used to analyse the data. Summary statistics were used to examine the demographic and workplace characteristics and the frequency and prevalence of WPB. Correlations were used to examine the relationships among the multi-item measures and WPB by different sources of perpetrators. Logistic regression analyses were conducted with the experience of the four sources of WPB as dependent (outcome) variables. Respondents who had answered yes to experiencing WPB also indicated whether they experienced WPB by each perpetrator group (coded as yes: 1; no: 0). The independent (predictor) variables were entered into the regression in two blocks: the demographic characteristics were entered at the first step and workplace characteristics entered in the second step.

Results

Sample characteristics and bullying

Table I shows that most respondents were female and aged 36 years or older. Two-thirds worked as registered nurses and more than half worked in public hospitals. The sample characteristics are highly consistent with national statistics on the nursing workforce in Australia (AIHW, 2016). In total, 42 per cent of the respondents ($n = 1,850$) reported that they had experienced WPB in the past 12 months. Among the targets, 32 per cent had experienced WPB “a few times” and 10 per cent had experienced WPB on a monthly, weekly or daily basis. Of the 1,850 respondents who reported the experience of WPB in the past 12 months said that the dominant sources of WPB were horizontal bullying (61 per cent) and downward bullying (58 per cent) with fewer respondents reporting that they had experienced upward (11 per cent) or inward bullying (5 per cent). These results support our first hypothesis as we found some evidence of bullying perpetrated by all four sources: managers, co-workers, subordinates and patients and their families.

PR 48,2	<i>n</i>	%
<i>Gender</i>		
Male	356	7
Female	4,511	93
<i>Age (years)</i>		
18–25	191	4
26–35	571	12
36–45	881	18
46–55	1,782	36
56+	1,458	30
<i>Job role</i>		
Registered nurse	3,273	67
Enrolled nurse	1,055	22
Midwife	407	8
Personal carer	156	3
<i>Workplace type</i>		
Hospital public	2,492	54
Hospital private	589	13
Aged care facility	956	21
General medical clinic	154	3
Local government	77	2
Community	341	7
<i>Frequency WPB</i>		
Never	2,525	58
A few times	1,402	32
Monthly	95	2
Weekly	237	5
Daily	116	3
<i>Source WPB</i>		
Downward	1,076	22
Horizontal	1,123	23
Upward	202	4
Inward	94	2
Note: <i>n</i> = 4,891		

Table I.
Sample descriptive
statistics

Table II presents summary statistics and correlations among the variables (excluding the categorical variables: job role, workplace type). Respondents who experienced WPB tended to report lower levels of leading indicators of OHS, prioritisation of OHS and supervisor support for safety.

Respondents who experienced WPB tended to obtain higher scores on the bureaucracy scale. Respondents who reported that their workplaces have fewer bureaucratic processes were more likely to report that their workplaces have higher levels of leading indicators of OHS, prioritisation of OHS and supervisor support for safety.

Likelihood of bullying by different perpetrators

The results of the logistic regressions predicting the likelihood of WPB by perpetrator are displayed in Table III. In the regression predicting the likelihood of downward bullying ($n = 4,582$), the model was statistically significant at Stage 1 ($\chi^2(8) = 28.7, p < 0.001$) and Stage 2 ($\chi^2(17) = 658.7, p < 0.001$) and the Nagelkerke R^2 increased from 1 per cent to 21 per cent between Stages 1 and 2. Odds ratios for the demographic characteristics showed that women

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Gender	0.93	0.26	1									
2. Age	3.77	1.12	0.05**	1								
3. Downward bullying	0.22	0.41	-0.05**	0.04**	1							
4. Horizontal bullying	0.23	0.42	0.00	-0.00	0.26**	1						
5. Upward bullying	0.04	0.20	-0.05**	0.03*	0.16**	0.20**	1					
6. Inward bullying	0.02	0.14	0.01	0.04**	0.04*	0.05**	0.04**	1				
7. Bureaucracy	4.16	0.76	-0.00	-0.01	0.17**	0.17**	0.08**	0.04**	(0.75)			
8. OPM-MU	3.43	0.84	0.05**	0.03	-0.31**	-0.17**	-0.12**	-0.05**	-0.18**	(0.91)		
9. Prioritisation of OHS	2.99	0.44	0.05**	0.03*	-0.27**	-0.16**	-0.09**	-0.06**	-0.25**	0.53**	(0.97)	
10. Supervisor support	3.54	1.03	0.02	0.04**	-0.32**	-0.17**	-0.12**	-0.02	-0.17**	0.69**	0.50**	(0.96)

Notes: *n* = 4,891. Cronbach's *α*s are on the diagonal. Gender coded male = 0, 1 = female; age coded 1 = 18–25 years, 2 = 25–35 years, 3 = 36–45 years, 4 = 46–55 years, 5 = 56 or more years. **p* < 0.05; ***p* < 0.01

Table II.
Means, standard
deviations and
correlations among
the study variables

	Downward OR (95%CI)	Horizontal OR (95%CI)	Upward OR (95%CI)	Inward OR (95%CI)
<i>Block 1: demographics</i>				
Female	0.76 (0.57–1.00)*	1.16 (0.88–1.53)	0.59 (0.37–0.95)*	2.35 (0.73–7.55)
18–25 years	Ref cat	Ref cat	Ref cat	Ref cat
26–35 years	1.62 (0.98–2.69)	1.10 (0.72–1.67)	6.78 (0.89–51.33)	2.37 (0.29–19.47)
36–45 years	1.76 (1.09–2.87)**	1.18 (0.79–1.76)	6.72 (0.90–50.05)	1.14 (0.13–9.82)
46–55 years	2.02 (1.27–3.23)**	1.26 (0.86–1.85)	10.33 (1.42–75.14)*	4.43 (0.60–32.65)
56+ years	2.24 (1.39–3.59)**	1.12 (0.75–1.65)	9.05 (1.24–66.26)**	4.58 (0.62–33.96)
Registered nurse	Ref cat	Ref cat	Ref cat	Ref cat
Enrolled nurse	1.18 (0.96–1.45)	1.38 (1.15–1.67)**	0.51 (0.33–0.78)**	0.84 (0.47–1.50)
Midwife	1.01 (0.77–1.32)	0.97 (0.75–1.26)	1.01 (0.59–1.73)	0.61 (0.24–1.56)
Personal carer	1.47 (0.96–2.27)	1.87 (1.27–2.75)**	0.38 (0.15–0.93)*	1.23 (0.44–3.48)
<i>Block 2: workplace characteristics</i>				
Hospital public	Ref cat	Ref cat	Ref cat	Ref cat
Hospital private	1.16 (0.92–1.47)	0.95 (0.76–1.19)	0.50 (0.27–0.92)*	0.27 (0.08–0.88)*
Aged care	1.02 (0.81–1.29)	1.14 (0.93–1.40)	2.30 (1.55–3.40)**	1.42 (0.80–2.51)
General medical clinic	0.94 (0.58–1.53)	0.72 (0.45–1.13)	0.64 (0.20–2.12)	0.94 (0.22–4.09)
Local government	1.09 (0.59–2.03)	0.52 (0.25–1.05)	0.77 (0.18–3.22)	0.00 (0.00–0.00)
Community	1.10 (0.81–1.51)	0.54 (0.39–0.76)**	0.54 (0.25–1.19)	0.79 (0.31–2.03)
Bureaucracy	1.47 (1.30–1.65)**	1.26 (1.13–1.40)**	1.52 (1.18–1.96)**	1.46 (1.02–2.10)*
OPM–MU	0.71 (0.63–0.81)**	0.82 (0.73–0.92)**	0.80 (0.63–1.02)	0.77 (0.54–1.10)
Prioritisation of OHS	0.52 (0.42–0.64)**	0.67 (0.54–0.81)**	0.90 (0.58–1.38)	0.41 (0.22–0.76)**
Supervisor support	0.65 (0.59–0.72)**	0.86 (0.78–0.94)**	0.71 (0.59–0.87)**	1.28 (0.96–1.69)
Constant	3.02**	0.91	0.01**	0.01**
χ^2 (df)	658.7 (17)	263.0 (17)	130.8 (17)	59.6 (17)
Log likelihood	4,144.75	4,684.47	1,415.84	777.20
Block 1: Nagelkerke R^2	0.01	0.01	0.02	0.03
Block 2: Nagelkerke R^2	0.21	0.09	0.10	0.08
Change Nagelkerke R^2	0.20	0.08	0.08	0.05
Notes: $n = 4,891$. OR, odds ratio; CI, confidence interval. <i>Italic values denote significant predictors.</i> * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$				

Table III.
Logistic regressions:
final model for the
likelihood of
experiencing
workplace bullying

were less likely than men to experience downward bullying. Respondents in older age groups (36 years or older) were approximately twice as likely as the youngest employees (18–25 years) to experience downward bullying. Those reporting greater bureaucracy at work were more likely to experience downward bullying. Those employed in workplaces with a greater focus on OHS leading indicators, a higher prioritisation of OHS and those with greater supervisor support for safety were less likely to experience downward bullying compared to their counterparts in other workplaces.

In the regression predicting the likelihood of horizontal bullying ($n = 4,542$), the model was statistically significant at Stage 1 ($\chi^2(8) = 40.0, p < 0.001$) and Stage 2 ($\chi^2(17) = 263.0, p < 0.001$) and the Nagelkerke R^2 increased from 1 to 9 per cent between Stages 1 and 2. Compared to registered nurses, respondents working as enrolled nurses and personal carers were nearly twice as likely to experience horizontal bullying. Those working in community services were less likely to experience horizontal bullying compared to respondents working in public hospitals. Those indicating greater bureaucracy at work were more likely to experience horizontal bullying. Respondents employed in workplaces with a greater focus on OHS leading indicators, a higher prioritisation of OHS and those with greater supervisor support for safety were less likely to experience horizontal bullying.

In the regression predicting the likelihood of upward bullying ($n = 4,582$), the model was statistically significant at Stage 1 ($\chi^2(8) = 21.7, p < 0.001$) and Stage 2 ($\chi^2(17) = 130.8, p < 0.001$) and the Nagelkerke R^2 value increased from 2 to 10 per cent between Stages 1 and 2.

Women were less likely than men to experience upward bullying. Respondents in the two oldest age groups (46–55 years, 56 or more years) were approximately ten times as likely as the youngest employees (18–25 years) to experience upward bullying. Enrolled nurses and personal carers were less likely to experience upward bullying compared to registered nurses. Respondents working in aged care were more than twice as likely to experience upward bullying compared to those working in public hospitals. Respondents working in private hospitals were less likely to experience upward bullying compared to those working in public hospitals. Those with greater bureaucracy at work were more likely to experience upward bullying and respondents with greater supervisor support for safety were less likely to experience upward bullying.

In the regression predicting the likelihood of inward bullying from patients or their relatives and visitors ($n = 4,542$), the model was statistically significant at Stage 1 ($\chi^2(8) = 22.0, p = 0.005$) and Stage 2 ($\chi^2(17) = 59.6, p < 0.001$) and the Nagelkerke R^2 increased from 3 to 8 per cent between Stages 1 and 2. Respondents who worked in private hospitals were less likely than those working in public hospitals to experience inward bullying. Those reporting greater bureaucracy at work were more likely to experience inward bullying. Those employed in workplaces with a greater focus on the prioritisation of OHS were less likely to experience inward bullying.

H2a was partially supported. Men were more likely than women to experience downward and upward WPB. We found no gender differences with regard to the likelihood of experiencing horizontal or inward bullying. *H2b* was not supported. We found the opposite result: older workers were more likely than were younger workers to experience downward and upward WPB; there was no significant age difference for horizontal or inward WPB. *H2c* was partially supported; there were mixed results. Health workers in lower status job roles (enrolled nurses and personal carers) were more likely than registered nurses to experience horizontal WPB but less likely to experience upward WPB. We found no significant differences across job roles with regard to the likelihood of experiencing downward or inward WPB.

We found partial support for our third hypothesis as there was variation among workplace types with regard to the likelihood of experiencing horizontal, upward and inward WPB. As expected, where there were differences public hospitals were generally associated with higher WPB. No significant differences were found with regard to workplace type for downward WPB.

There was partial support for our fourth hypothesis, as respondents in workplaces with higher levels of OHS leading indicators were less likely to experience downward or horizontal WPB. No significant association was found between OHS leading indicators and the likelihood of experiencing upward or inward WPB. Respondents in workplaces with higher levels of prioritisation of OHS were less likely to experience downward, horizontal or inward WPB. No significant association was found between prioritisation of OHS and the likelihood of experiencing upward WPB. Respondents in workplaces with higher levels of supervisor support for safety were less likely to experience downward, horizontal or upward WPB. No significant association was found between supervisor support for safety and the likelihood of experiencing inward WPB. Respondents in workplaces with higher levels of bureaucracy were more likely to experience WPB from all types of perpetrator: downward, horizontal, upward and inward bullying.

Our fifth hypothesis was supported with regard to bullying from managers, co-workers and subordinates but not with regard to bullying by patients and/or their family and visitors. The substantial increase in the Nagelkerke R^2 at Stage 2 of the logistic regression models for downward, horizontal and upward bullying indicates that workplace characteristics make a greater contribution to the likelihood of bullying by these perpetrator types compared to demographic characteristics. For inward bullying (by patients and/or family and visitors), the increase in Nagelkerke R^2 in Stage 2 of the logistic regression models was slight and suggests minimal contribution to the likelihood of inward bullying by both sets of characteristics.

Discussion

The findings offer novel theoretical understanding of WPB and extend previous research by highlighting the complexity of power dynamics available to different bullying perpetrators. The findings have practical implications particularly for HR professionals who, as Catley *et al.* (2017) explained, are charged with designing and implementing workplace strategies to prevent and manage WPB.

Implications for theory and research

We found some evidence of bullying perpetrated by all four sources: managers, co-workers, subordinates and patients and their families. This evidence of multiple sources of perpetrators is consistent with Hoel and Salin's (2003) argument that the imbalance of power may be connected with either formal or informal sources of power that are social, physical or psychological in nature. In total, 42 per cent of respondents experienced WPB in the past 12 months, which is consistent with international studies that have shown that bullying is prevalent in healthcare with higher rates of WPB than has been found in other sectors (Spector *et al.*, 2014). The results reinforce previous studies that have shown that the dominant sources of WPB are horizontal and downward bullying (Castronovo *et al.*, 2016). Extending previous research that has focussed on managers and co-workers, the study found evidence of bullying by subordinates and patients and their visitors.

Our set of hypotheses with regard to demographic characteristics (*H2a–H2c*) found mixed results. The study found different effects of demographic characteristics related to WPB by members of an organisation (downward, horizontal and upward bullying). However, no statistically significant associations were found between the demographic characteristics of targets and the likelihood of bullying by patients and visitors (inward bullying).

Gender and age were shown to be predictors of both downward and upward bullying. The finding that men were more likely than women to experience both downward and upward bullying is in contrast to research in other industries (Zapf *et al.*, 2003) yet may be explained by a relative lack of power held by men where they are a social minority in the context of nursing and healthcare (Hutchinson *et al.*, 2010). Workers over 35 years of age were more likely to experience both downward and upward bullying than younger workers, which could reflect circumstances where older workers may be more vulnerable to multiple sources of WPB because they have more direct contact with managers and are managers themselves. With regard to job role, enrolled nurses and personal carers experienced higher levels of horizontal bullying but lower levels of upward bullying compared to registered nurses, which may indicate powerlessness experienced by health workers with relatively low status in the healthcare hierarchy (Laschinger *et al.*, 2010).

Overall, the associations among demographic characteristics and WPB extend previous knowledge and could offer some explanation for the lack of clarity in previous research. The results indicate that it is important to investigate the nuances relevant to the different perpetrators of WPB. Future studies could add to this investigation of perpetrators of WPB, as called for by Samnani and Singh (2012), by collecting data from all of the different sources of perpetrators and exploring other under-studied demographic factors of both targets and perpetrators, such as organisational tenure and types of work such as shiftwork.

As previous scholars have argued (e.g. Samnani and Singh, 2012) it is important to look beyond individual factors to explain WPB. Consistent with previous studies (Bowling and Beehr, 2006), the study found that characteristics of the work environment were significant predictors of downward and horizontal bullying. Extending previous knowledge, workplace characteristics were also significant predictors of upward and inward bullying.

In support of *H3*, the results on workplace types add to the small body of literature on employment settings (e.g. Hutchinson *et al.*, 2010; McKenna *et al.*, 2003) and offer some indication of workplaces where workers might be relatively more vulnerable to the power

imbalance that could give rise to WPB (Laschinger *et al.*, 2010). Consistent with *H3*, public hospitals were generally associated with higher WPB, given the power hierarchy and bureaucracy associated with those workplace types (Hutchinson and Jackson, 2015). We also found that respondents working in aged care were twice as likely as those in public hospitals to experience WPB from subordinates. Other workplace types appear to be more benign; the study found less WPB by co-workers in community settings than in public hospitals. Those working in private hospitals were less likely than respondents in public hospitals to experience upward and inward bullying.

An important and novel contribution of this research is that, in support of our fourth hypothesis, aspects of OHS management were found to be associated with WPB (Samnani and Singh, 2012). OHS leading indicators, which reflect the organisation's positive steps to prevent workplace injury and illness (Shea *et al.*, 2016), were associated with a reduced likelihood of downward and horizontal bullying. Prioritisation of OHS and supervisor support for safety were both associated with a reduced likelihood of downward and horizontal. Together, these findings offer evidence that HR professionals and healthcare managers should give priority and support to OHS, which contrasts with the traditional emphasis on patient safety in healthcare. A noteworthy finding of this study is that bureaucracy was the only significant predictor of WPB from all perpetrators. Healthcare is highly rule driven and workplaces are often bureaucratic and hierarchical, so that bureaucratic requirements in healthcare are inevitable. Theoretically, it is argued that bureaucracy reinforces a structured power imbalance and reduces empowerment of individuals, thereby contributing to circuits of power that lead to negative acts such as WPB (Hutchinson *et al.*, 2010). There is a clear foundation for further research to understand and prevent the negative effects of bureaucracy (Salin, 2003).

Finally, some support was found for our fifth hypothesis: with regard to downward, horizontal and upward bullying, workplace characteristics were significantly stronger predictors of bullying than demographic characteristics. Specifically, the research has shown that workplace types and workplace characteristics that have been associated elsewhere with general OHS outcomes (Sheehan *et al.*, 2016) are relevant to the analysis of WPB and more important than demographic characteristics. Bureaucracy that emphasises rules and "red tape" was found to be a predictor of bullying by all perpetrators; future research could explore ways to enhance the facilitative aspects of bureaucracy and minimise the negative elements (Salin, 2003).

Theoretically, the confirmation of the importance of workplace factors aligns with Hutchinson *et al.*'s (2010) and Clegg's (1989) circuits of power argument where socially constituted rules create shared understandings of meaning that, in turn, influence social relationships and impact on how individuals think about themselves in relation to others. When there is workplace pressure to engage in or tolerate bullying behaviour, individuals rationalise their own involvement (Beirne and Hunter, 2013). The specific examples of socially constructed rules that were shown to impact on the reported experience of WPB in this research were leading indicators of OHS, prioritisation of OHS, supervisor support for safety and bureaucracy. The finding that workplace characteristics are relevant to the experience of WPB and are more important than demographic characteristics could guide future research and inform the design of practical HR strategies aimed to prevent power imbalances that lead to WPB.

Practical implications

The results of our study highlight the value of HR strategies that are focussed on promoting positive OHS outcomes. In terms of HR policy development and management of WPB, there are several practical implications of the findings that emphasise the importance of focussed HR strategies to prevent bullying, as prioritised by Catley *et al.* (2017). First, there is a clear need to counteract the negative effects of bureaucracy (Salin, 2003) perhaps through initiatives such as simplification of reporting requirements and reduction of "legacy" command structures and rules that could undermine or compromise OHS. Second, the implementation of HR policies on

bullying is a valuable step, yet this must be reinforced by management commitment to OHS and demonstrated via bullying prevention initiatives that address leading indicators of OHS. Examples include: adequate staffing and appropriate rostering; training and education about WPB prevention; educating managers to role-model professional relationships and interactions at work; and building a culture of civility and respect in the workplace (Beirne and Hunter, 2013). These HR initiatives could be promoted internally to employees and externally to the community in general to improve awareness and prevention of WPB from all sources. Third, there may be value in targeted, specific HR initiatives such as training and support for workers who may be in less powerful positions, such as male nurses and those who are working as enrolled nurses and personal carers. In sum as well as suggesting specific actions the current research highlights that it is not enough to focus on individual characteristics of WPB perpetrators and targets; it is important to address the HR and OHS context (Beirne and Hunter, 2013; Hershcovis and Reich, 2013).

Limitations

Several limitations of the present study must be acknowledged. First, this is a cross-sectional study that describes associations between variables but not necessarily causal relationships. Future research could utilise a longitudinal design (Balducci *et al.*, 2012). Second, the design of this study was single-source; the findings are based on self-reports from bullying targets, which could raise concerns about common-method variance. While self-reports are subjective, they are very widely used because it is valuable to understand the target's perception of bullying (Spector *et al.*, 2014). Several steps were taken to reduce problems associated with common-method variance, including varying response anchors for different subscales, ensuring that the independent variables were presented in different sections of the survey from the dependent variables, and emphasising to participants that their responses would be anonymous (Podsakoff *et al.*, 2003). A third limitation is the relatively low response rate, which might be improved in future research by use of incentives offered to respondents. Although the response rate was low, the sample characteristics are consistent with the population of nurses and health workers in Australia (AIHW, 2016) and the results are in line with similar samples (Castronovo *et al.*, 2016; Nielsen and Einarsen, 2012; Spector *et al.*, 2014). Finally, the survey covered many aspects of OHS to reduce the likelihood of bias in the sample towards workers who have been bullied. The self-labelling method was used to measure WPB, which Nielsen and Einarsen (2012) regarded as likely to lead to relatively conservative reporting. As noted earlier, the findings of WPB prevalence are consistent with other studies conducted in healthcare. Collecting data directly from the perpetrators of WPB would also be worthwhile yet perpetrators may be likely to under-report or may fail to even recognise their own bullying behaviour (Hauge *et al.*, 2009; Matthiesen and Einarsen, 2007).

Conclusion

Eradicating WPB is significant and important because of the multiple detrimental effects of bullying on workers, employers and society overall. Healthcare workers are particularly vulnerable to WPB and the major contributions of the research improve understanding of WPB by different perpetrators in the health sector (Samnani and Singh, 2012). First, the findings provide empirical support for the analysis of bullying through the theoretical lens of power and power imbalance (Branch *et al.*, 2013; Hutchinson and Jackson, 2015). Second, the study has provided evidence that WPB perpetrators include managers, co-workers, subordinates and people external to the organisation. Downward and horizontal bullying are the most likely but not the only forms of WPB. A third contribution is that the study highlights the importance of investigating not only the individual perpetrators and targets of WPB; it is necessary for HR professionals to build practical strategies that focus on the OHS context. Of particular importance in healthcare, it was found that bureaucracy is

positively associated with the likelihood of WPB by all sources of perpetrators. Overall, the findings of different patterns of demographic and workplace factors associated with different perpetrators point towards the value of HR's development and implementation of practical strategies to prevent WPB in the future.

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