Integrating individual, work group and organizational factors: testing a multidimensional model of bullying in the nursing workplace

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Introduction

The field of workplace bullying has developed rapidly in recent decades, with considerable work undertaken in a number of industry sectors to define the nature and extent of the problem. Nurses are considered a high-risk occupational group for exposure to workplace violence and aggression (Hubert & van Veldhoven 2001, Vartia & Hyyti 2002). Among nurses, the prevalence of bullying is reported to be widespread (RCN 2002,
Farrell et al. 2006, Hutchinson et al. 2006a), with estimates suggesting 80% of nurses experience bullying at some point in their working lives (Lewis 2006). In the nursing context, colleagues, managers, other health professionals, patients and their families have been identified as perpetrators, with bullying from colleagues being of most concern (Farrell et al. 2006).

Despite the pervasive nature of bullying, much of what has been written in the nursing context focuses upon individual or dyadic features of the behaviour. Little attention has been directed towards understanding work group and institutional processes. As a consequence, few strategies have been developed to address features of workplace climate that enable or perpetuate the behaviour. A more detailed understanding of the organizational characteristics associated with bullying would assist nurse managers to develop a broader range of strategies to address the problem. Ultimately, such action may result in an improvement to the quality of work life for nurses, improved retention and higher productivity. The present research is focused upon developing a broader understanding of bullying in the nursing workplace from which preventative and remedial strategies can be developed.

Background

A wide variety of labels have been used to describe workplace bullying. The term ‘mobbing’ is commonly used in Europe (Zapf 1999). In other settings labels include: victimization (Aquino & Lamertz 2004); petty tyranny (Ashforth & Anand 2003); and antisocial workplace behaviour (O’Leary-Kelly et al. 1996). In the nursing literature, the terms horizontal violence (Jacoba 2005), oppressed group behaviour (Freshwater 2000) or lateral violence (Griffin 2004) are commonplace. Notwithstanding the broad range of terms used, there appears to be a convergence in defining the nature of the behaviour. There is consensus that bullying involves repeated forms of negative or hostile behaviours occurring over time (Yamada 2000), which may involve offending, harassing, excluding, or negatively affecting the work tasks of individuals targeted.

The resulting psychological trauma stemming from bullying is considered a severe social stressor and a critical life event for those targeted. Bullying can result in severe psychological problems for those targeted (Einarsen et al. 2003) and create a hostile work environment. The consequences of bullying include: severe psychological trauma (Hallberg & Strandmark 2006); lowered self-esteem (Randle 2003); depression and anxiety (Quine 2001); post-traumatic stress disorder (Mikkelsen & Einarsen 2002); physical illness (Kivimäki & Virtanen 2003); financial loss; and, in some cases, the eventual inability to work (Einarsen & Mikkelsen 2003). The ripple effect of bullying also extends to family members who are liable to experience considerable stress from living with a family member who has been bullied (Kivimäki et al. 2000).

Specific work-related consequences of bullying include decreased job satisfaction and intent to resign (Quine 2001). A positive relationship has been revealed between experiencing bullying and medically validated illness and sick leave (Kivimäki & Virtanen 2003). A range of negative flow-on effects for organizations have been associated with bullying. In the United States, the costs from bullying in the healthcare sector have been estimated to be in excess of 5% of the total annual operating budget (Adkins 2004, Waldman et al. 2004).

Method

The model tested in this paper was developed from a sequential mixed methods study of Australian nurses. Initially, in-depth qualitative interviews were conducted with nurses who had experienced bullying and the interview transcripts were analysed to identify domains of bullying (Hutchinson et al. 2005, 2006a,b). The second stage of the study involved developing, testing and refining a valid set of coherent measures of bullying (Hutchinson et al. 2006c, 2007a). The third and final stage of the study involved testing a multidimensional model of bullying developed from the preceding stages using structural equation modelling (SEM) and confirmatory factor analysis (CFA).

Sample and procedure

After approval from the Human Ethics Research Committees of the University of Western Sydney, a randomized sample was selected from 145 000 members of a national nursing organization providing both industrial and professional services to members in each Australian State and Territory via a third party process, the survey instrument was distributed to 5000 nurses on the membership mailing list. From the mail out, 370 surveys were returned, with one having insufficient data to be included in the analysis.1 While lower than expected, the response rate of 7.4% is not an unusually low response rate for this population (Driscoll 2008),

1 Changes to privacy legislation that occurred at the time of this study precluded further access to the member data base for the purpose of follow-up contact.
and was adequate for the type of analysis planned (Parry & Proctor-Thomson 2001).

The majority of respondents were employed in clinical nursing positions (81.3%, \( n = 301 \)). Those not working in clinical positions (17.6%, \( n = 65 \)) were in management, education or nursing administration roles. Hospital nursing was the main area of work (53.5%, \( n = 198 \)), followed by care of the elderly (12.4%, \( n = 46 \)) and midwifery (8.1%, \( n = 30 \)). The majority worked in the public sector (75.7%, \( n = 280 \)), followed by the private sector (18.9%, \( n = 70 \)) and those who reported employment in both sectors (4.3%, \( n = 16 \)). A little over half worked full-time (53.2%, \( n = 197 \)), with others employed part-time (39.2%, \( n = 145 \)) and the remainder being casual employees (5.7%, \( n = 21 \)). The mean number of years working as a nurse was 23.1 years (SD = 11.6) and the mean age of respondents was 44.3 years. Women accounted for 92.7% (\( n = 342 \)) of the sample and men accounted for 6.2% (\( n = 23 \)). The employment sector, age and gender of the sample, closely match the profile of the Australian nursing workforce (AIHW 2005).

**Measures of bullying**

A small number of validated instruments have been developed to measure bullying behaviours in the general work population. However, these instruments do not measure the factors associated with workplace bullying or the resulting consequences of bullying identified from the first stage of our study. To address this gap, we developed an integrated multidimensional survey instrument to measure bullying behaviours, organizational features associated with bullying and the consequences of bullying. The instrument is summarized in Table 1. A more complete account of the development and validation of the measures and survey instrument are reported elsewhere (Hutchinson et al. 2006c, 2008a,b).

**Hypothesis**

The hypothesis tested was that the three organizational factors identified in the earlier stages of this study (informal organizational alliances, organizational tolerance and reward of bullying and misuse of legitimate organizational processes and procedures) enable workplace bullying. Bullying arising as a consequence of these factors, in turn, leads to avoidance and withdrawal at work, work and career interruption, negative health effects and the normalization of bullying behaviours in nursing teams.

### Table 1

<table>
<thead>
<tr>
<th>Construct</th>
<th>No. of items</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bullying behaviours</td>
<td>9</td>
<td>0.92</td>
</tr>
<tr>
<td>Features of organizational climate</td>
<td>24</td>
<td>0.98</td>
</tr>
<tr>
<td>Misuse of legitimate organizational processes</td>
<td>8</td>
<td>0.90</td>
</tr>
<tr>
<td>Organizational tolerance and reward of bullying</td>
<td>6</td>
<td>0.91</td>
</tr>
<tr>
<td>Informal organizational alliances</td>
<td>5</td>
<td>0.92</td>
</tr>
<tr>
<td>Normalization of bullying in nursing teams</td>
<td>5</td>
<td>0.91</td>
</tr>
<tr>
<td>The consequences of bullying</td>
<td>30</td>
<td>0.82</td>
</tr>
<tr>
<td>Negative health effects</td>
<td>12</td>
<td>0.98</td>
</tr>
<tr>
<td>Work and career interruption</td>
<td>7</td>
<td>0.82</td>
</tr>
<tr>
<td>Withdrawal and avoidance at work</td>
<td>11</td>
<td>0.82</td>
</tr>
</tbody>
</table>

**Confirmatory factor analysis techniques**

To test this hypothesis, structural equation modelling using the AMOS Version 7.0 (SPSS Inc., Chicago, IL, USA) (Arbuckle 1997) with maximum likelihood estimates (MLE) was performed. The approach adopted for the analysis was a two-step process with initial validation of the measurement model, followed by testing the fit of structural models (Joreskog & Moustaki 2001, Kline 2005). Consistent with the more common approach to structural modelling, three manifest indicators were used for each latent construct in the model (Fitzgerald et al. 1997, Little et al. 2002, Kline 2005). The purpose of testing the structural model using SEM was to evaluate the relationships between the latent factors in the hypothesized model of workplace bullying. Initially, the relative chi-square fit index, a measure of the chi-square statistic, and the associated degrees of freedom were assessed. Tabachnick and Fidell (2001) suggest a ratio of 2 : 1 indicates model fit whereas Kline (2005) notes that a ratio of 5 : 1 has been used in many studies. For this analysis, a ratio of 3 : 1 was chosen to assess fit. A Comparative Fit Index (CFI) of greater than 0.90 was taken as an acceptable fit. A Tucker–Lewis Index (TLI) close to 1 was taken to indicate a good fit (Hu & Bentler 1999). A Normed Fit Index (NFI) value below 0.80 indicated a need to respecify the model. An excellent fit was indicated when the root mean square error of approximation (RMSEA) was \( \leq 0.5 \), a good fit at 0.8 and an unsatisfactory fit at 0.10 (McDonald & Ho 2002).

**Results**

In addition to running a CFA on the initial model (Figure 1), alternative models that were defensible from
previous literature and supported from the data were also tested (Tabachnick & Fidell 2001).

Determining model of best fit

As Table 2 demonstrates the initial model did not fit the data adequately. In respecifying the model, a path was inserted between ‘Informal organizational alliances’ and ‘Misuse of legitimate organizational authority, processes & procedures’ and ‘Informal organizational alliances and Organizational tolerance and reward’ (Figure 2). Research has repeatedly demonstrated that informal organizational networks influence organizational misconduct (Many Raab & Milward 2003). In revising the model, we reasoned that ‘Informal organizational alliances’ may function as a higher order factor influencing ‘Misuse of legitimate authority, processes and procedures’ and ‘Organizational tolerance and reward’. Second, we revised the path between ‘Bullying acts’, ‘Health effects’ and ‘Work and career interruption’ by linking ‘Work and career interruption’ to ‘Health effects’. As already noted, existing evidence suggests bullying results in harm to the health and wellbeing of individuals. Hence, we reasoned that work and career interruption is directly related to these effects.

A satisfactory model fit was obtained with a chi-square was 643.2 with degrees of freedom = 244 indicating an acceptable ratio. The goodness-of-fit statistics for the revised model are presented in Table 2. It can be seen that a satisfactory solution was obtained. Additionally, the TLI was 0.92, the CFI was 0.93, the NFI was 0.90 and the RMSEA was good at 0.06, suggesting an acceptable model fit. The path co-efficients for the revised model were significant at the 0.01 level.

The estimated coefficients for the standardized solution and their standard errors are also presented in Figure 2. What emerged from the analysis was that each of the measured items loaded moderately to strongly upon their designated latent factor. The estimates of the path from ‘Informal organizational alliances’ to ‘Organizational tolerance and reward’ was 0.77, confirming perceptions of a tolerance of bullying were positively related to the operation of alliances between individuals engaged in bullying. Further, the paths from ‘Informal organizational alliances’ to ‘Misuse of legitimate authority, processes and procedures’ and ‘Bullying acts’ of 0.74 and the paths between ‘Misuse of authority, processes and procedures’ and ‘Bullying acts’ of 0.66 indicates that tolerant organizational climates increase the likelihood of bullying. Figure 2 also reports the path between ‘Bullying acts’ and ‘Distress and Avoidance’ at work was 0.68. The path between ‘Bullying acts’ and the ‘Normalization of bullying in work teams’ was 0.31 suggesting that the occurrence of bullying influences behaviour at the work team as well as the individual level. Next, the path between ‘Bullying acts’ and ‘Health effects’ of 0.31 confirms that the experience of bullying is linked to negative health consequences.

Of importance, these findings highlight the strength of the relationship between organizational features, bullying and the resultant consequences. Overall, the results demonstrate an incremental relationship between the latent factors in the model and indicate the direction of the relationship between the three organizational factors, bullying and the resultant consequences.

Discussion

The explanatory model of bullying resulting from this study identifies three organizational factors that contribute to bullying and, the relationship between
bullying and the resultant consequences. The model provides insight into the organizational factors that function as mechanisms through which bullying becomes embedded within institutions. By extending understanding beyond the individual and specifying the role of the work group and organizational level characteristics, the model provides the basis for developing additional strategies to manage workplace bullying. In particular, the model may assist nurse managers to understand features of the work climate that perpetuate the behaviour. Importantly, the model draws attention to managerial and work group behaviours that contribute to and sustain bullying.

The model highlights the role of informal alliances as the mechanism through which group acts of bullying are mediated suggesting that the nature and extent of informal alliances within an organization will influence the distribution of opportunities for individuals to participate in workplace bullying. It is feasible that, through association with other actors who are willing to tolerate or engage in bullying, individuals may be socialized into norms tolerant of the behaviour. Among nurses the true extent of bullying is considered to be underreported (Fisher et al. 1995, Green 2004). Reasons for underreporting have been attributed to a organizational climate that tolerates bullying and where reports are trivialized or disbelieved (Deans 2004, Hutchinson et al. 2006a), as well as perceptions among nurses that violence and aggression are simply ‘part of the job’ (Fisher et al. 1995). By revealing the role of informal organizational alliances in perpetuating bullying, the model sheds light on the way relationships among nurses can perpetuate a normalizing frame of reference within work groups.

While a number of authors have identified the manner in which group norms can be conducive to misconduct (Schein 1999, Bandura 2002), our model suggests that the occurrence of bullying contributes to socialization processes within nursing teams that sustain an occupational milieu in which bullying can become normalized. Contemporary nursing authors report the manner in which nurse socialization begins in undergraduate education and continues into the workplace (Reeves 2000, Randle 2003, Begley & Glackin 2004). The model also confirms that bullying is more prevalent in environments where actors who engage in the behav-


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bour do not receive effective sanctions and may, instead, be rewarded through perks, promotion or favourable treatment. These forms of tolerance and reward may function to influence the occurrence of bullying and enable repetitive, patterned and escalated forms of the behaviour. In addition, the model draws attention to the misuse of legitimate authority, processes and procedures as a feature of bullying. These findings provide important insight into the mechanisms for the widely recognized culture of secrecy and underreporting of abuse and violence reported among nurses (Jackson et al. 2002, Hutchinson et al. 2006d).

The model draws into question the continued reliance upon zero tolerance strategies as these approaches assume bullying only takes place at an individual level. Even although organizations may well have developed high profile policies and procedures to respond to bullying, we suggest that informal organizational alliances and work group norms tolerant of bullying may serve to counteract these polices and ensure reports are minimized, ignored or denied. This suggestion is supported in the literature, with reports from the RCN in the UK, identify that 23% of nurses surveyed did not report their experience of bullying (RCN, 2002). Similarly, other studies have noted up to 50% of physical assaults go unreported (Hesketh et al. 2003). In a survey of Australian nurses (n = 370), Hutchinson et al. (2007b) reported that, while most workplaces have policies and procedures in place for reporting workplace bullying, the majority of nurses bullied (64%) did not report their experience for fear of being blamed, seen as incompetent, or viewed as a troublemaker.

The model also depicts the negative consequences of bullying that can be widespread and enduring, occurring within four conceptually distinct but related factors. The health effects stemming from bullying are identified to lead to work and career interruption. This pathway is consistent with the documented relationships between bullying, psychological and health effects (Kivimäki & Virtanen 2003) and work and career interruption (Quine 2001). The demonstration of a link between bullying, health effects and work interruption has important implications for the management of bullying. While a number of authors have previously identified correlations between bullying and ill health (Kivimäki et al. 2000, Zellars et al. 2002), our model confirms the strength of the relationships. Importantly, by identifying organizational features associated with the occurrence of bullying and the resultant health and career implications, the model shifts attention from individual coping or personality characteristics to organizational features.

It is feasible that distress and avoidance of targets may be an attempt to cope with the experience of bullying and potentially reduce further exposure to the behaviour. Linking this finding to the previously reported low incidence of reporting bullying among nurses (Jackson et al. 2002), it is possible that, instead of making a report, nurses may, instead, exhibit avoidance and withdrawal at work. In addition, it is also likely that distress and avoidance may be behaviours exhibited in work environments where tolerance and reward of bullying is present. Avoidance strategies may be adopted in work climates where aggression is considered ‘part of the job’, tolerated, normalized and underreported – all features associated with the nursing workplace (Sofield & Salmon 2003, Deans 2004, Green 2004).

By identifying that nurses employ avoidance and withdrawal at work, it is suggested that there may be ‘hidden’ costs associated with workplace bullying including nurses reducing their participation and avoiding involvement in activities. In withdrawing their participation in this way, there may be a loss of nursing commitment, productivity and expertise. These findings suggest the organizational costs stemming from bullying, particularly those associated with loss of nursing expertise, may be greater than those costs captured by measuring nurse turnover (Waldman et al. 2004). The finding that nurses interrupt their work and career as a consequence of bullying resonates with the suggestion in the literature of a link between the low rates of retention of nurses at work and the experience of workplace bullying (Miller 2000, Shields & Ward 2001, Jackson et al. 2002, Stevens 2002, Jasper 2007).

While the model shares some similarities with other theoretical models developed to explain workplace bullying (Einarsen et al. 2003, Salin 2003), the unique contribution of our model is the specification and testing of the organizational antecedents and consequences of bullying. A critical aspect of the revised model is the identification of a direct relationship between organizational features and the occurrence of workplace bullying. While not discounting the place of individual characteristics, it appears from this research that, in the nursing context, individual features may not be key contributing factors.

**Implications for nursing management**

Our model has important implications for the practice of nurse managers, pointing them in new directions regarding contributory factors and the prevention of
workplace bullying. By confirming that bullying is influenced by organizational characteristics, which in turn influence work team norms, the model directs managers to features of their organization, rather than individual personality differences and interpersonal conflict. Health care organizations have been characterized as transactional climates, strongly focused upon efficiency, productivity and cost containment (Parry & Proctor-Thomson 2003). In this organizational backdrop, there is a risk that bullying may stem from political or self-interested behaviour and include acts that involve the misuse of legitimate authority or processes for personal gain.

Further, in a tolerant environment, these behaviours may be framed as ‘acceptable’ – particularly when they appear to be in the best interests of the organization (Hutchinson et al. 2008b). Hence, managers need to be alert to pockets or groups of individuals who opportunistically misuse legitimate processes such as change management or restructure, performance review and disciplinary procedures, to harm others, and in so doing, enhance their own private power or career opportunities. With this in mind, when reviewing the frequency and nature of bullying in their organization, it is important for managers to consider repeated or patterned occurrences, as these may suggest established relationships conducive to bullying.

The link identified between informal organizational relationships and bullying, suggests individuals can be recruited to support bullying through conditioning relationships with other influential actors. It is known these types of relationships are commonly superior-subordinate relationships (Pinto et al. 2008). Therefore, in examining their organization, it is important for managers to consider the nature of mentoring and informal vertical relationships within their institution. Further, it is vital to critically review the degree to which those engaged in bullying may have been rewarded or promoted through these relationships. Managers need to consider whether preceptoring or mentoring programmes that draw staff from within the organization risk inculcating newcomers into norms conducive to bullying. In a study of rule breaking in the insurance industry, Mac Lean (2001) identified that changes to staff training and orientation reduced the learned diffusion of rule breaking. With this in mind, managers need to direct their attention towards ensuring preceptoring is not a vehicle through which workplace norms tolerant of bullying are perpetuated.

Similarly, in reviewing teams where persistent reports of bullying have been made, rather than simply targeting ‘troublemakers’, it is important to examine the degree to which the behaviours reported reflect informal workgroup norms. Management also needs to consider the appropriateness of the common response of moving the target of bullying, while the perpetrator remains in place, as this response may inadvertently reinforce the position of alliances supportive of bullying and foster perceptions that bullying is not taking seriously.

Adopting the model also has significant implications for current in-house reporting or zero tolerance strategies as these approaches assume bullying only takes place at an individual level. Even although organizations may have well-developed and high-profile policies and procedures in place to respond to bullying, we suggest that informal organizational alliances may serve to counteract these polices and ensure reports are minimized, ignored or denied. Further, the absence of interpersonal conflict as a factor in bullying, suggests the reliance upon mediation premised upon resolving interpersonal conflict may be an inappropriate response. Human resource personnel and managers need to be aware that bullying is not necessarily interpersonal in nature, and conflict-based mediation strategies risk further increasing the vulnerability of those targeted, while perversely reinforcing the power of perpetrators. The continued emphasis upon in-house reporting schemes as a central plank to address workplace bullying inadvertently risks the protection of perpetrators, as it is possible, that actors in alliances may work together to subvert organizational reporting processes to protect their own interests. Particularly those protected through informal relationships with influential actors within the organization. Hence, it may be prudent for management to consider systems where those responsible for investigating and managing complaints of bullying have no stake in the outcome.

**Limitations**

With regard to the small sample size, Marcoulides and Saunders (2006) suggest that a sample size of 371 is required to achieve power equal to 0.80 when the factor loadings are greater than 0.6. In our study, earlier testing of the measures using exploratory factor analysis identified loadings of 0.7 (Hutchinson et al. 2006d, 2008a). This suggests it is likely that the sample size is adequate for confident interpretation of the results. Despite an adequate sample being reached for a power of 0.8, the findings should be interpreted cautiously as the response rate reduces confidence that respondents represent the population studied. A possible further limitation of our study is that a cross-sectional
population sample was employed. Further research might usefully employ data that is not cross-sectional such as that derived from an organizational level case study to further test the factors measured in this study.

**Conclusion**

The model presented here provides a unique and valuable empirically validated explanation of bullying in the nursing workplace. In contrast to the common explanation of bullying as a form of escalated interpersonal conflict, our findings suggest that, in the nursing workplace, organizational factors may more important in influencing the occurrence of bullying. These findings support the proposition that the incidence of bullying cannot be separated from the organizational climate in which it occurs. With respect to the outcomes of bullying for individuals and organizations, our results highlight that bullying is both costly and harmful. Importantly, our model identifies specific features of organizational behaviour that may guide future efforts to tackle the problem and enhance the quality of worklife for nurses.

**References**


