

ORIGINAL RESEARCH: EMPIRICAL RESEARCH –
QUANTITATIVEThe effect of bullying on burnout in nurses: the moderating role of
psychological detachment

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Roslyn Reynolds, was initially omitted from
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and has now been added in the issue version.]ALLEN B.C., HOLLAND P. & REYNOLDS R. (2015) The effect of bullying on
burnout in nurses: the moderating role of psychological detachment. *Journal of
Advanced Nursing* 71(2), 381–390. doi: 10.1111/jan.12489**Abstract****Aims.** The aim of the study was to examine the relationship between bullying
and burnout and the potential buffering effect psychological detachment might
have on this relationship.**Background.** There is evidence to suggest that bullying is relatively widespread in
the nursing profession, with previous studies indicating that bullying is associated
with higher levels of burnout. There is, however, limited research focusing on
potential moderators of the relationship between bullying and burnout.**Design.** A cross-sectional quantitative study conducted with self-completed,
anonymous questionnaires.**Methods.** The study was conducted in 2011 with 762 Registered Nurses in Australia.
Two hypotheses were tested with validated measures of bullying, psychological
detachment and burnout. The hypotheses were tested using hierarchical regression.**Results.** Bullying is positively associated with burnout. Psychological detachment
does not significantly moderate the relationship between bullying and burnout.**Conclusion.** The results indicate that bullying exacts a strong negative toll on
nurses. Ensuring there are workplace policies and practices in place in healthcare
organizations to reduce the instances of bullying and proactively address it when
it does occur would therefore seem crucial. Individuals may also lower their risk
of burning out by psychologically detaching from work.**Keywords:** bullying, burnout, conservation of resources, horizontal violence,
nurses, psychological detachment**Introduction**

The ongoing, continuing shortage of skilled nurses in many developed countries, including Australia, is a critical issue for policy makers and management (Health Workforce Australia 2012). A key component contributing to this

shortage are the challenges associated with attracting and retaining nurses, due to the inherently stressful nature of the direct provision of care, which at times can be very challenging and emotionally draining (McVicar 2003, Barnard *et al.* 2006, Takase *et al.* 2008). Numerous studies have confirmed that pressures associated with nursing

Why is this research needed?

- Burnout as a potential negative consequence of bullying has received relatively limited research attention.
- The potential for psychological detachment to buffer or ameliorate the negative effect of bullying on burnout remains unexplored.

What are the key findings?

- The study provides evidence that bullying is associated with nurses experiencing higher levels of burnout.
- Psychological detachment failed to ameliorate the negative effects of bullying on burnout.

How should the findings be used to influence policy/practice/research/education?

- It is important for healthcare organizations to proactively develop and identify mechanisms to both minimize and address bullying among nurses.
- Individuals should be encouraged to use their work breaks in a healthy way by switching off and psychologically detaching from work to lower their risk of burning out.

contribute to the documented high rates of burnout among nurses (Maslach *et al.* 2001, Imai *et al.* 2004, Vahey *et al.* 2004, Lei *et al.* 2010). However, understanding the causes of burnout and how to prevent it is an area of research that has yet to be fully developed (Cox *et al.* 2005).

Although the prevalence and consequences of bullying among nurses are increasingly recognized as an important issue facing the profession, to date limited studies have explored nurses' experiences of bullying (Hutchinson *et al.* 2010). In particular, the relationship between bullying and burnout is an underdeveloped area of research (Moreno-Jimenez *et al.* 2009).

Using the Conservation of Resources (COR) theory (Hobföll 1989), we argue that bullying is a mechanism that depletes employees' resources and predisposes them to experience higher levels of burnout. We also explore the potential buffering or moderating effect that psychological detachment may have on the relationship between bullying and burnout. In doing so, we therefore not only generate a greater understanding of the role of bullying in predisposing individuals to burnout but also further our understanding of the potential moderators of burnout.

Background

Theoretical framework

First developed by Hobföll (1989), the Conservation of Resources (COR) theory is an integrative stress theory that

considers the role of both external and internal processes. In this theory, psychological stress is defined as an individual's response to a context where they perceive there to be: (a) a threat of a loss to their resources; or (b) the actual depletion of resources; or (c) insufficient replenishment of resources following the expenditure of resources (Hobföll 2001). The COR theory suggests that either perceived or actual loss or lack of gain of resources is sufficient for producing stress (Hobföll 1989). Resources are defined as those items, individual characteristics, circumstances or energies that are prized by individuals or that act as a mechanism for acquiring these items, individual characteristics, circumstances or energies. Examples of resources include having the necessary tools for work, status/seniority at work, having an understanding employer/boss, having support from co-workers, or advancement through job training (Hobföll 1998). Environmental circumstances can often threaten or cause a reduction in individuals' resources and may threaten individuals' status, role, financial security or self-esteem. The COR theory suggests that although the depletion of resources is stressful, individuals may use other resources to compensate for the loss and prevent or minimize the stress they experience (Hobföll 1989).

Burnout refers to a state of physical, emotional and psychological exhaustion that occurs due to prolonged engagement in work situations that are emotionally exacting (Maslach *et al.* 2001, Schaufeli & Greenglass 2001, Schaufeli *et al.* 2009). It is characterized by three dimensions: emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach 1976). Of the three dimensions, emotional exhaustion is recognized as being most central to understanding burnout from one's work (Maslach *et al.* 2001, Cox *et al.* 2005) and for this reason this is the dimension we will focus on.

Drawing on the key principles of the COR theory, Hobföll and Shirom (1993) have theorized a resource-based framework for the burnout process. In this framework, it is argued that the stress caused by either the threat of the loss of resources, the actual loss of resources or insufficient replenishment of resources following investment leads employees to burnout over time, especially because the speed with which work demands deplete employees' resources is normally greater than the speed with which employees are able to restore or replenish their resources (Freedy & Hobföll 1994). The COR theoretical framework has been successfully employed in predicting burnout in organizational settings and has emerged as the leading theory in the field (e.g. see Westman & Eden 1997, Wright & Cropanzano 1998, Janssen *et al.* 1999, Hobföll 2001, Shirom 2003, Halbesleben & Buckley 2004, Halbesleben 2006, Neveu 2007).

Bullying and burnout

Bullying, sometimes also termed horizontal violence, is a form of workplace behaviour that can be defined as threatening, intimidating, degrading, belittling, harassing or offending behaviour directed at an individual or group of individuals (Rayner & Hoel 1997, Einarsen *et al.* 2003, WorkCover NSW 2008). Bullying also includes behaviour that seeks to socially exclude an individual or negatively affect his/her work tasks (Einarsen *et al.* 2003). Importantly, most definitions of bullying specify that the negative behaviours need to be repeated over time with isolated or 'one off' instances of negative behaviour not generally classified as bullying (Cowie *et al.* 2002, Einarsen *et al.* 2003, Saunders *et al.* 2007).

Bullying continues to be identified at increasing rates across numerous industries (Turney 2003, Johnson & Rea 2009); however, one employment sector that appears to have particularly high levels of bullying is the healthcare sector and in particular the nursing profession (Randle 2003, Hutchinson *et al.* 2006, Dellasega 2009). Indeed, in their review of workplace bullying across various industries, Zapf *et al.* (2011) concluded that the healthcare sector has some of the highest incidences of bullying. In the UK, a report by the Royal College of Nursing (2002) also found that the frequency of bullying and harassment by staff was disturbingly high, with one in six nurses reporting that they had been bullied in the last 12 months by a work colleague. More recently, a study of 663 nursing professionals in the US revealed that 65% of nurses reported frequently observing lateral violence (a further term often used to describe bullying) among co-workers (Stanley *et al.* 2007). While in an Australian context, Rutherford and Rissel's (2004) study of nurses in New South Wales found that 50% of respondents reported experiencing one or more bullying behaviours during a 12-month period. Interestingly, research evidence suggests that graduate nurses tend to report experiencing higher levels of bullying compared with their more experienced colleagues (McKenna *et al.* 2003, Laschinger *et al.* 2010, Vogelpohl *et al.* 2013, Parker *et al.* 2014).

From an organizational perspective, bullying is associated with higher levels of staff turnover, decreased morale, loss of productivity, poor working relationships and an overall toxic work culture (Turney 2003, Hutchinson *et al.* 2006, Woelfle & McCaffrey 2007). The psychological and physical damage of bullying to individuals is also well documented, with bullied individuals often experiencing headaches, stress, impatience, nervousness, impaired sleep, diminished social skills, depression, a diminished ability to concentrate, an inability to cope and posttraumatic stress

disorder (Lewis & Orford 2005, Ramos 2006, Woelfle & McCaffrey 2007). Burnout, as a potential negative consequence of bullying, however, remains largely unexplored in the literature (For exceptions see Einarsen *et al.* 1998, Sa & Fleming 2008, Laschinger *et al.* 2010, Laschinger & Grau 2012). Indeed, Moreno-Jimenez *et al.* (2009) have argued that the relationship between bullying and burnout is an area requiring further research.

Given that social support, in the form of good relationships with work colleagues, has been shown to be a protective factor against burnout (Shimizu *et al.* 2005), conceivably poor work relationships could also be (negatively) linked to burnout. Indeed, throughout the history of burnout research, negative relationships with co-workers and supervisors have been shown to aggravate burnout (Schaufeli *et al.* 2009). Using the COR theory (Hobföll 1989), we argue that bullying is a potential mechanism via which employees' resources are depleted, predisposing them to experiencing high levels of burnout. It is therefore proposed that:

Hypothesis 1: Experiencing bullying behaviours will be positively related to burnout.

Moderating role of psychological detachment

In a work context, Sonnentag and Bayer (2005) contend that becoming psychologically detached is a critical element of any recovery process and involves disconnecting oneself mentally or psychologically from work. According to Etzion *et al.* (1998, p. 579), psychological detachment involves an 'individual's sense of being away from the work situation'. Psychological detachment from work is thought to be especially useful for recovery because it ensures that additional demands are not made on individuals once they have removed themselves from the work environment (Sonnentag & Fritz 2007). There is evidence to suggest that work strain reactions in individuals caused by job stressors accumulate and over time can develop into health problems such as burnout if they are not addressed (Meijman & Mulder 1998). Accordingly, recovering and unwinding from work is thought to be particularly important in buffering the negative effects of job stressors such as bullying and positively influencing individuals' health and well-being (deCroom *et al.* 2004). Based on the COR theory, it is thought that psychological detachment will result in individuals being able to protect existing internal resources such as energy, confidence or a positive state of mind (Sonnentag & Fritz 2007).

Several authors (Sonnentag & Fritz 2007, Moreno-Jimenez *et al.* 2009) have proposed that recovery experiences might

be conceptualized as moderators in the relationship between job stressors and diminished well-being with poor or inadequate recovery experiences strengthening the negative relationship between job stressors and poor well-being. However, to date the potential moderating role of psychological detachment in the relationship between bullying and burnout has not been examined. More broadly, there is, however, evidence to support the positive protective role of psychological detachment. For example, the study by Etzion *et al.* (1998) of 162 individuals engaged in military service in Israel showed that psychological detachment exerted a moderating effect on the relationship between stressors (i.e. job overload, time pressure) and burnout. More recently, Sonnentag and Fritz's (2007) study of 271 individuals across a variety of different occupational groups in Germany showed that low psychological detachment from work was significantly related to impaired well-being. In the case of the relationship between bullying and burnout, we therefore propose that psychological detachment from work is likely to buffer the negative effects of bullying on burnout, thus allowing individuals to focus on other types of activities and thoughts that assist them to feel more relaxed and in turn replenish their lost resources. We therefore hypothesize that:

Hypothesis 2: Psychological detachment will moderate the relationship between bullying and burnout such that bullied nurses who also report high levels of psychological detachment will report lower levels of burnout.

The study

Aim

The aim of the study was to examine the relationship between bullying and burnout and the potential buffering effect psychological detachment might have on this relationship. We examine two hypotheses as discussed above.

Design

A cross-sectional quantitative study was conducted in Australia in June–September 2011. The study used self-completed, anonymous questionnaires, which nurses completed online. The hypotheses were tested using hierarchical regression analyses.

Participants

The participants were nurses engaged in paid work in Australia, with a total of 762 nurses participating in the study.

Due to the anonymous nature of the survey, respondents could not be directly compared with non-respondents. However, the sample characteristics were highly consistent with national statistics on the nursing profession in Australia (Australian Institute of Health & Welfare (AIHW) 2011).

Data collection

Participants were recruited via the Australian Nursing and Midwifery (ANMF) website. Nurses who viewed the website were advised of the survey through an announcement requesting their participation, which included a hyperlink to the survey. Potential respondents were informed that the questionnaire was completely anonymous, confidential and voluntary and that they could elect to not answer any of the individual questions.

Measures

Bullying was measured using a scale developed by Quine (1999), who identified twenty types of bullying behaviour. Using a dichotomous (yes (1)/no (0)) response scale, participants were asked to indicate whether they had experienced each of these 20 behaviours by their supervisor, by another colleague, or by another person at work in the past 12 months. Participants' responses were summed with higher scores indicating a higher level of experienced bullying. The dichotomous response format for this scale meant that a Cronbach's alpha was not able to be calculated.

Psychological detachment was measured using four items (e.g. 'During time after work I don't think about work at all') from the Recovery Experience Questionnaire (Sonnentag & Fritz 2007). The items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items were averaged with higher scores indicating higher levels of psychological detachment. The scale had a Cronbach's alpha of 0.85, which is consistent with previous studies (Moreno-Jimenez *et al.* 2009).

Burnout was measured using the seven-item (e.g. 'Is your work emotionally exhausting?', 'Do you feel that every working hour is tiring for you?'), work-related burnout subscale from the Copenhagen Burnout Inventory (CBI) (Kristensen *et al.* 2005). The items were rated on a five-point frequency scale (ranging from Never/Almost never or to a very low degree = 1 – Always or to a very high degree = 100). Each participant's total score was the average of the scores on the seven items, with higher average scores indicating a higher level of burnout. Previous

research (e.g. Kristensen *et al.* 2005) indicates that this scale has good reliability and consistent with this in this study the scale had a Cronbach's alpha of 0.90.

Several variables known to co-vary with burnout (Lee & Ashforth 1996, Ilhan *et al.* 2007) were controlled for in the regression analyses used to test the hypotheses. Specifically, organization type (1 = public/private hospital, 0 = other), hours worked per week and time in occupation (years) were all controlled for.

Ethical considerations

Approval for the study was obtained from the human research ethics committee of the researchers' institution.

Data analysis

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS, Chicago, IL, USA) (version 20.0) software program. Descriptive and inferential analyses of the demographic and major study variables were conducted, as well as reliability assessments of the study measures. To test Hypothesis One, a hierarchical regression was performed, with the control variables entered in the first step of the model, followed by the main effect of bullying in step two. Hypothesis Two was also tested using hierarchical regression. The control variables were entered into the first step of the model, followed by bullying and psychological detachment in step two. In line with recommendations of Aiken and West (1991), the bullying and psychological detachment variables were mean-centred to reduce multicollinearity prior to being entered into step two of the model. In step three, the interaction term (bullying \times psychological detachment) was entered.

Validity and reliability

As indicated, all variables in this study were assessed using existing, published scales, which had previously demonstrated good levels of validity and reliability. As reported,

all scales with a non-dichotomous response format achieved a minimum Cronbach's alpha of 0.70 indicating that these measures had a high level of internal consistency (Nunnally 1978, Hinkin 1998). Discriminant validity was also evidenced for these scales as their reliabilities were higher than the correlations amongst the different measures (Campbell & Fiske 1959).

Results

Descriptive statistics and correlations

Eighty-nine per cent of the respondents were female and the mean age of the sample was 46.5 years (SD 11.5). The mean number of hours worked per week was 35.7 (SD 12.8), with the mean number of years working as a nurse being 20.4 years (SD 13.5). Just under two-thirds (60.1%) of the respondents were currently employed in a hospital. Sixty-one per cent of respondents reported experiencing at least two instances of bullying in the last 12 months. While on average respondents reported experiencing six instances of bullying out of a possible total of 60 in the last 12 months (Mean = 5.7, SD 7.3). Respondents reported moderate levels of psychological detachment (Mean = 2.9, SD 0.89). Interestingly, the mean level of burnout reported was 54.3 out of 100 (SD 22.3), which is significantly higher than the level of burnout found by Kristensen *et al.* (2005), who reported an average score of 35.0 (SD 17.7) for nurses.

Bullying and burnout were significantly positively correlated ($r = 0.38$, $P < 0.001$), while psychological detachment and burnout were significantly negatively correlated ($r = -0.34$, $P < 0.001$). Bullying and psychological detachment were also significantly negatively correlated ($r = -0.14$, $P < 0.001$). Table 1 contains the correlation coefficients and Cronbach's alphas.

Hypothesis testing

The hierarchical regression analysis conducted to test Hypothesis One demonstrated that bullying was a

Table 1 Correlation coefficients and Cronbach's alphas ($N = 672$).

Variable	1	2	3	4	5	6
1. Years worked as a nurse	–					
2. Hours worked per week	0.04	–				
3. Organization type	–0.09*	0.04	–			
4. Bullying	–0.02	0.11**	0.05	–		
5. Psychological Detachment	0.02	–0.03	0.01	–0.14***	(0.85)	
6. Burnout	–0.07*	0.05	0.11**	0.38***	–0.34***	(0.90)

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$; Where applicable the Cronbach's alphas for the scales are in parentheses 0.

significant predictor of burnout ($\beta = 0.37, P < 0.001$). Hypothesis One was therefore supported. The results from hierarchical regression analyses conducted to test Hypothesis Two indicated that whilst both bullying ($\beta = 0.34, P < 0.001$) and psychological detachment ($\beta = -0.30, P < 0.001$) were significant predictors of burnout in step two of the model, the interaction term (bullying \times psychological detachment) entered into step three was not a significant predictor of burnout ($\beta = -0.04, P > 0.05$). Hypothesis Two, that psychological detachment would moderate the relationship between bullying and burnout, was therefore not supported. The findings for the regression analyses conducted to test both hypotheses are presented in Table 2.

Discussion

Despite increasing rates of bullying among nurses and growing recognition of the serious consequences bullying can have, the relationship between bullying and burnout

and the potential for psychological detachment to moderate this relationship had not been empirically examined previously. This study investigated these relationships using the COR framework (Hobföll 1989).

In doing so overall we have contributed to both the literature and practice in several important ways. First, we have shown that Australian nurses are experiencing disturbingly high levels of burnout. In the current study, 38% of respondents reported experiencing high to very high levels of burnout with the average burnout score for nurses in the present study being 54 out of 100. As indicated previously, this is a significantly higher level of work-related burnout than reported by Kristensen *et al.* (2005), with nurses in their study having average score of 35. These high levels of work-related burnout among Australian nurses are concerning and these findings clearly indicate that further measures need to be taken in the Australian healthcare sector to prevent burnout if this core workforce is going to be successfully retained.

Second, our findings provide empirical support for a resource-based approach to conceptualizing the burnout process. Consistent with Hobföll's (1989) COR theory, the findings of our study demonstrate that workplace bullying acts to deplete individuals' valued resources and thereby predisposes them to experience higher levels of burnout. Accordingly, our research has furthered our knowledge in relation to the antecedents of burnout and more specifically has deepened our understanding of how social processes such as bullying contribute to the development of burnout.

Finally, although in this instance psychological detachment was not found to have a moderating effect, it did exhibit a significant negative main effect on burnout ($r = -0.34, P < 0.001$), suggesting that psychological detachment from work is potentially still important for protecting individuals' well-being and decreasing their risk of burnout. The failure for psychological detachment to act as a significant moderator is perhaps not surprising, given that McClelland and Judd (1993) have argued that significant moderation effects are infrequently found in field-based studies. One of the main reasons they cite for this is that field studies, relative to experiments, have non-optimal distributions of variables. In this study, the bullying variable had a restricted range, with the participants' scores on this measure being truncated at the lower end of the scale. Specifically, the mean number of bullying behaviours participants reported experiencing was 6 (out of a possible total of 60) and 33% of participants reported experiencing no bullying behaviours. According to McClelland and Judd (1993), this restriction of range in one of the interaction variables (i.e. bullying) lowers the power of the test for

Table 2 Results of regression analyses.

Hypothesis one [†]		Hypothesis two [‡]	
Predictors	Burnout	Predictors	Burnout
Step 1	β	Step 1	β
Years as a nurse	-0.07	Years as a nurse	-0.07
Hours/week	0.05	Hours/week	0.05
Organization type	0.10**	Organization type	0.10**
R ²	0.02	R ²	0.02
F	4.02**	F	4.02**
Step 2	β	Step 2	β
Years as a nurse	-0.06	Years as a nurse	-0.05
Hours/week	0.01	Hours/week	0.00
Organization type	0.08**	Organization type	0.09**
Bullying	0.37***	Bullying	0.34***
R ²	0.16	Psychological detachment	-0.30***
F	30.76***	R ²	0.24
		F	41.39***
		Step 3	β
		Years as a nurse	-0.05
		Hours/week	0.00
		Organization type	0.09**
		Bullying	0.33***
		Psychological detachment	-0.29***
		Bullying \times psych detachment	-0.04
		R ²	0.24
		F	34.71***

[†]N = 672, *P < 0.05, **P < 0.01, ***P < 0.001.

[‡]N = 653, **P < 0.01, ***P < 0.001.

moderation, with the primary determinant of the power of the test of significance for an interaction being the product term's conditional variance. The primary determinant of the product term's conditional variance is the variances of its components (in the case of this study bullying and psychological detachment).

Limitations

There are several additional limitations to the findings of our study, which ought to be taken into account when interpreting the results. First, the cross-sectional design limits the extent to which causal relationships can be inferred from this study. Future studies that are longitudinal in design would help establish the causal direction of the relationship between the variables. Additionally, future studies where psychological detachment is purposefully manipulated, or where psychological detachment interventions are implemented would also contribute to a better understanding of the nature of the role psychological detachment plays in the bullying–burnout relationship.

Furthermore, we used self-report measures that may give rise to common method variance (CMV) problems or social desirability bias, which could have an unintended effect of inflating associations between variables (Podsakoff *et al.* 2012). Whilst some authors argue that issues associated with common method variance are less common than historically believed and that it is erroneous to conclude that use of a single method necessarily introduces systematic bias (Spector 2006), it would, however, be beneficial for future research to replicate the findings of our study using data from additional informants (e.g. responses from human resource managers).

Implications for practice

Given that both bullying and burnout have such a pervasive, destructive impact on individuals, it is crucial that organizations ensure they have policies and procedures in place to prevent and/or manage workplace bullying and burnout. Crucially, the results of this study, which demonstrate that bullying significantly increases feelings of burnout amongst nurses, suggest that managers in healthcare organizations must foster the development of considerate and courteous workplaces to ensure bullying behaviours do not become ingrained (Carmeli & Gittell 2009). This could be achieved through active encouragement of nurses to report incidents of bullying and making certain bullying policies are followed in a fair, prompt and appropriate manner (Dellasega 2009, Hutchinson *et al.* 2009).

Importantly, on an individual level our findings also provide some practical insights into the benefits of nurses psychologically detaching from work. Research indicates that engaging in meaningful activities outside work, like volunteer work or hobbies, is one way for individuals to effectively detach from work (Etzion *et al.* 1998). Using rituals or routines, such as purposely not thinking about work-related issues during commuting time, but rather using this time to listen to music, has also been shown to help individuals more effectively disengage from work and promote lower burnout levels (Sonnetag *et al.* 2010, Drach-Zahavy & Marzuq 2013). An individual's non-work environment has also been shown to play an important role in facilitating psychological detachment, with environments rich in soft stimuli affording the best opportunities for restoration and recovery from work (Sonnetag & Bayer 2005).

Organizational interventions aimed at directly influencing recovery processes by instructing individuals on how to use their work breaks in a healthy way (i.e. switching off and psychologically disengaging from work) could also be helpful in preventing burnout. Indeed, there is evidence to suggest that employees should be encouraged to engage in daily practices, which help them psychologically detach rather than thinking that the only time they can recover from stressful work experiences is when they are on periods of annual leave (Kuhnel & Sonnetag 2011). To this end, organizations could provide employees with information and education in relation to different daily psychological detachment techniques, which have shown to be useful. For example, organizations could provide training to develop employees' skills in cleansing their mind at the end of each shift, stopping negative thought cycles about work-related issues during non-work times and recognizing the potential negative consequences a failure to 'switch off' can have on their emotions and well-being. Training and education like this has the potential to provide employees with concrete and powerful tools to facilitate their psychological detachment from work and in doing so reduce burnout.

Conclusion

Our study was the first to investigate the potential for psychological detachment to buffer the strong negative effects of bullying on burnout. Disturbingly, the majority of nurses in our study had experienced at least one incidence of bullying in the last 12 months. Given the strong relationship between bullying and burnout, it was perhaps therefore not surprising that the nurses in our study also reported experiencing relatively high levels of burnout. Given these find-

ings, it is essential that healthcare organizations are proactive in putting policies and practices in place to both deter and effectively manage workplace bullying. Whilst psychological detachment did not ameliorate the negative effect of bullying on burnout in our study, the significant negative relationship between this variable and burnout does indicate that facilitating and encouraging employees to 'switch off' outside work hours could be an important additional tool healthcare organizations could use to reduce the levels of employee burnout. Given the ongoing and pervasive problems in relation to retaining nurses, proactive measures to reduce burnout in this key occupational group are clearly vitally important.

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Conflict of interest

No conflict of interest has been declared by the authors.

Author contributions

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the IC-MJE (http://www.icmje.org/ethical_1author.html):

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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