WORKPLACE AGGRESSION IN THE ALLIED HEALTH CONTEXT

Defne Demir, John Rodwell, Andre Gulyas and Rebecca L. Flower
Faculty of Business, Australian Catholic University
Locked Bag 4115 Fitzroy MDC Victoria 3065 Australia

ABSTRACT

Workplace aggression is typically studied among health professionals identified as at-risk, despite being prevalent in all healthcare contexts, including allied health. The aim of the study was to explore antecedents of aggression among allied health workers in relation to conditions of work. Surveys were distributed to allied health professionals in an Australian healthcare organisation and 134 (49%) responded. Logistic regressions and ANCOVAs revealed that support was associated with internal aggression, and role-related factors were associated with external aggression. This study extends the literature on aggression by highlighting links between the working environment and specific workplace aggression types within allied health.

Key words: Aggression, demands-control-support, job satisfaction, commitment, distress

INTRODUCTION

Workplace aggression occurs globally and across all industries, though some industries such as healthcare are particularly at risk [1]. Studies of aggression in healthcare have focused on groups considered high-risk such as nursing [2], yet workplace aggression is likely to occur in all areas of healthcare [3] [4]. Allied health professionals comprise approximately 18 percent of the Australian healthcare workforce [5], and provide a broad range of services, including but not limited to psychology, physiotherapy, radiography and occupational therapy [6]. Research has found that up to 66 percent of allied health professionals report experiences of occupational violence at some point [3]; however, little research has investigated aggression among allied health professionals [7].

Research that examines workplace bullying highlights the role of stressful working conditions. More specifically, the demand control support model (DCS) [8] [9] has been found to aid our understanding of the antecedents of workplace aggression [10] [11], though limited research has tested these components as antecedents of workplace violence. In addition, evidence suggests that negative affectivity (NA) may influence these relationships [12]. Therefore, this study aimed to explore whether similar factors act as antecedents of workplace aggression among allied health professionals.

Background

Workplace aggression encompasses bullying and violence behaviors. Bullying can be broadly defined as persistent, negative behavior from one or more individuals that can range from subtle

unconscious behaviors to more overt types [13] [14]. Bullying is targeted behavior that occurs systematically, rather than as a single event [15] and, while it may occur in several forms (i.e. verbal and/or physical), the nature of workplace bullying is often psychological [16]. Violence, in comparison, can occur as single or repeated incidents, taking various forms including physical assault, threat of assault, sexual assault, emotional abuse or verbal sexual harassment [17]. Within healthcare, the source of workplace aggression may be internal (i.e. supervisors and/or co-workers) or external to the organization (i.e. patients and/or patient family/friends; [18].

The environment in which aggression occurs may encompass some important antecedents of aggression. Studies have found an association between workplace bullying and the work environment, whereby victims also report poor working conditions [11] [19]. Labeled the work environment hypothesis, this theory suggests that aspects of the work environment may lead to bullying [20]. Researchers have since applied the DCS model to bullying to determine whether high work demands and limited resources (i.e. less control and social support) can explain why bullying is more likely to occur in some environments [11] [20].

The job demands control (JDC) model proposes that occupations involving high demands and low control are more likely to lead to poorer employee outcomes [9]. Job demands refer to the psychological effort or stressors involved in the workload, whereas job control refers to an individual's autonomy in the workplace regarding how and when activities are conducted. Social support was added more recently, referring to the support available to an individual from their supervisor, co-workers, and family and friends. Each type of social support is a resource that may buffer against job strain [8]. With the addition of support, the model became known as the DCS [8], whereby high strain jobs are those with high demands, low control and low levels of social support.

Studies have consistently found that elements of the DCS model are associated with workplace bullying [10] [11] [21]. Applications of the JDC model have found associations between both high demands and low control with reports of bullying [10] [22]. Research applying the full DCS model has found similar results, with high demands and low social support being associated with bullying [11].

High strain jobs (with high demands and low resources) may lead to frustration, which may develop into conflict, deteriorating relationships among staff, and potentially escalate into bullying [15]. Alternatively, if distressed workers are perceived as less competent by their co-workers they may be targeted for aggression [23]. Although the DCS model has been applied to workplace bullying, little research has investigated the utility of the model in predicting workplace violence. To the best of our knowledge, no studies have investigated these variables among allied health professionals.

Another element suggested as a possible antecedent of workplace aggression is NA. NA is a dispositional characteristic, and individuals high in NA generally view themselves more negatively than others, and are more vulnerable to distress and tent to be more nervous than those with low NA [24]. Individuals with high NA are considered to be more sensitive to negative daily life events. Thus, the likelihood of perceiving workplace violence or bullying may be more likely for individuals high in NA. Indeed, NA is often discussed in the context of workplace stress [25, 26]. In relation to bullying as a stressor, NA and bullying were linked, whereby employees reporting bullying were likely to be higher in NA [21] [27]. Therefore, this

study chose to include this characteristic when investigating the antecedents of aggression among allied health professionals.

The broad aim of the current study was to investigate antecedents of workplace aggression among allied health professionals in relation to the DCS model while investigating the role of NA as a potential antecedent of reported aggression.

METHOD

Participants and procedure

The sample for this study consisted of 134 allied health professionals employed at a large Australian healthcare organization. Surveys were distributed to allied health professionals across all facilities within the organization, primarily based in one state. The response rate for participation in the study was approximately 49%. The majority of participants were female (78%), and had been employed by the organization for 9 years or less (72%). In relation to age, 4 % of respondents were aged 24 years or younger, 36% were aged between 25-39 years, 22% between 40-49 years, and 38% were aged 50 or older.

Measures

Bullying. Prevalence of workplace bullying was measured using a single item scale developed by Hoel and Cooper [14]. Bullying was defined as a situation where individuals perceive themselves persistently, over a period of time, as the recipient of negative actions from one or more persons, and have difficulty in defending themselves. The definition was presented to participants as part of the item, requesting that they consider this definition in rating their experience of bullying. The six-point rating scale ranged from 1 (*No*) to 6 (*Yes, almost daily*).

Violence. Violence was examined using a scale adapted from Hesketh et al. [17]. The scale measured four types of violence (e.g. physical assault, threat of assault, emotional abuse and verbal sexual harassment), as well as the source of the violence (i.e. patient, visitor/family member of a patient, co-worker and supervisor). Participants were required to indicate the frequency with which they had experienced each type of violence. This was measured on a four-point rating scale ranging from 1 (*Never*) to 4 (*3 or more times*). Scores across the four sources of violence were summed creating two subscales: external and internal sources. External sources were the summed scores of patient and visitor/family member of patient scores, while internal sources were the scores of co-worker and supervisor.

Demands. Job demands were measured on an 11 item scale developed by Caplan et al. [28]. For four of these items, participants were required to respond on a five-point rating scale ranging from 1 (*very often*) to 5 (*rarely*). The remaining seven items were rated on a five-point rating scale ranging from 1 (*A great deal*) to 5 (*Hardly any*). The Cronbach's alpha co-efficient for this scale was .90.

Control. Control over work tasks was assessed using a nine item scale developed by Karasek [29]. Each item required participants to respond on a five-point rating scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alpha for this scale was .75.

Social Support. Social support was measured using a four item scale developed by Caplan et al. [28]. Each item required participants to provide a response regarding the degree to which they receive support from their immediate supervisor, co-workers, and family and friends. Participants were required to respond on a five-point rating scale ranging from 0 (*don't have any such person*) to 4 (*very much*) for each person(s). These responses formed three subscales (i.e. supervisor support, co-worker support, and outside work support). The Cronbach's alpha for the three subscales of supervisor, co-worker, and outside work support were .89, .82 and .85, respectively.

Negative Affectivity. Negative affectivity was tested using the ten item negative subscale from the positive and negative affect schedule (PANAS) developed by Watson et al. [30]. Participants were required to respond on a five-point rating scale the degree to which they had felt a particular presented negative emotion over the past week (e.g. hostile, ashamed, upset). The rating scale ranged from 1 (*Very slightly or not at all*) to 5 (*Very much*). The Cronbach's alpha for this NA scale was .83.

RESULTS

In regards to workplace bullying, 25% of respondents indicated that they experienced some level of bullying, whether it was very rarely, now and then, or on a monthly, weekly or daily basis (see Table 1). In terms of workplace violence, the experience of violence was highest for internal emotional abuse (19.4%), external emotional abuse (14.1%) and external threat of assault (7.5%), with respondents indicating exposure on one or more occasion. Low levels of exposure were reported for the remaining categories of violence (see Table 2).

Table 1. Frequency (and Percentages) of Bullying Responses

Bullying response	*n*
No	100 (74.6%)
Yes, very rarely	13 (9.7%)
Yes, now and then	13 (9.7%)
Yes, several times month	4 (3.0%)
Yes, several times a week	2 (1.5%)
Yes, almost daily	1 (0.7%)
Missing	1 (0.7%)

Table 2. Frequency (and Percentages) of Reported Violence

Violence frequency	Internal emotional abuse	External emotional abuse	Internal threat of assault	External threat of assault	Internal physical assault	External physical assault	Internal verbal sexual harassment	External verbal sexual harassment
Never	106 (79.1%)	114 (85.1%)	133 (99.3%)	123 (91.8%)	132 (98.5%)	129 (96.3%)	129 (96.3%)	128 (95.5%)
1 time	12 (9.0%)	8 (6.0%)	0 (0.0%)	6 (4.5%)	1 (0.7%)	3 (2.2%)	1 (0.7%)	3 (2.2%)
2 times	3 (2.2%)	3 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	0 (0.0%)
3+ times	11 (8.2%)	8 (5.9%)	1 (0.7%)	5 (3.0%)	0 (0.0%)	1 (0.7%)	2 (1.5%)	1 (0.7%)
Missing	2 (1.5%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	0 (0.0%)	2 (1.5%)	2 (1.5%)

Due to a limited number of bullying responses across categories, all responses indicative of bullying (i.e. from ‘yes, very rarely’ to ‘yes, almost daily’) were summed so that bullying was analyzed using dichotomous categories ‘no’ and ‘yes’. The same procedure was conducted for violence categories, so that responses ranging from ‘1 time’ to ‘3 or more times’ were summed and violence analyzed in dichotomous categories ‘no’ and ‘yes’. For several violence categories, there were not enough incidents to conduct analyses. Therefore, analyses were conducted including only the responses for bullying, external threat of assault and internal and external emotional abuse. Prior to undertaking analyses of the data, 11 cases were excluded due to either missing data, or having a social support subscale total of zero. Two univariate outliers for NA were also excluded, leaving 121 cases for analyses.

Four logistic regressions were conducted using demand, control, support (supervisor, co-worker, outside work support), and NA to predict the incidence of aggression types bullying, external threat of assault and internal and external emotional abuse (see Table 3). Co-worker support (B = -.26, Wald = 6.95, p = .01) was a significant contributor to the regression model for bullying (Cox and Snell = .16), whereby low levels of support were associated with bullying. Job control (B = -.19, Wald = 6.22, p = .01), NA (B = .13, Wald = 5.26, p = .02), and job demand (B = .12, Wald = 4.65, p = .03) were significant contributors to the regression model for external emotional abuse (Cox and Snell = .15) whereby low levels of job control, and high demands and NA were associated with the emotional abuse. Co-worker support (B = -.25, Wald = 5.69, p = .02) and outside work support (B = .27, Wald = 4.92, p = .03) were significant contributors to the regression model for internal emotional abuse (Cox and Snell = .17), whereby low levels of co-worker support, and high levels of outside work support were associated with emotional abuse. There were no significant results for regression analyses involving external threat of assault.

Table 3. Logistic Regression Results

	Bullying	External threat of assault	External emotional abuse	Internal emotional abuse
	B	B	B	B
Job Demand	.03	.07	.12*	.06
Job Control	.03	-.07	-.19*	.00
Supervisor support	-.09	.03	-.05	-.11
Co-worker support	-.26*	-.12	.02	-.25*
Outside work support	.15	-.07	.03	.27*
Negative affect	.09	.13	.13*	.02

* $p < .05$

DISCUSSION

The current study examined several possible antecedents to workplace aggression among allied health professionals in a large Australian healthcare organization. Although some forms of violence were reported too infrequently to appropriately analyse, workplace bullying, external threat of assault and both internal and external emotional abuse were reported by 23%, 7%, 17%, and 13% of participants, respectively. Although these rates are not as high as those reported by Alexander and Fraser (2004), they are still alarming given that healthcare organizations often implement a zero tolerance policy regarding aggression.

The results confirm that elements of the DCS model are associated with different types of aggression, providing partial support for the work environment hypothesis [20], suggesting that this hypothesis may be relevant for bullying in addition to violence. Regarding the antecedents of bullying, the overall pattern of results indicates that aggression that is likely to occur from internal sources was predicted by social support. Specifically, respondents reporting having been subjected to bullying were likely to have reported a low level of support from their co-workers. Similar results were revealed by Hansen et al. [21], though unlike the present study they also found a relationship between bullying and low supervisor support. In the current study, a similar relationship was apparent between internal emotional abuse and social support, whereby those who reported abuse were also likely to report low levels of co-worker support and high levels of support from family and friends. In comparison, aggression that was likely to come from sources external to the organization (i.e. external emotional abuse) were predicted by work related factors. Allied health professionals reporting emotional violence from patients and their visitors/family members were more likely to report high work demands and low control. An exception to this pattern was the results concerning the threat of assault external to the organization, which was not predicted by any of the DCS variables.

The results suggest that poor support between allied health professionals may lead to bullying and internal emotional abuse [15]. However, though high demands and low job control may have also led to poor relationships among employees as suggested by the authors, in this instance high demand sand low control instead predicted emotional abuse from patients and their family members/visitors. If high demands and low control contribute to errors made by allied health professionals, patients and their family members/visitors may perceive that these allied health professionals are less competent than their co-workers, and may consequently abuse them emotionally [23]. Additionally, outside work support was significantly related to internal emotional abuse, and this association could be due to several possible reasons. Employees who were not receiving support from external sources and experiencing internal emotional abuse may be more likely to leave the organisation due to a lack of social support. Alternatively, increased internal emotional abuse may lead to employees seeking more social support from family and/or friends. Future research should aim to determine the exact nature and direction of this relationship between external support and internal emotional abuse.

In the current study NA was not significantly associated with bullying, external threat of violence or internal emotional abuse. However, NA was significantly associated with external emotional abuse. If individuals high in NA have greater sensitivity to negative events than those low in NA, then allied health professionals with high NA are more sensitive to workplace aggression (representing a negative event) when the source of the aggression is external to the organization, such as patients and their family members/visitors. Thus, the current study illustrated variables associated with both the working environment and those associated with

personality are linked with specific workplace aggression types (i.e. external emotional abuse) for allied health professionals,.

Limitations and directions for future research

A number of limitations should be considered when interpreting the results of the current study. First, the design of the study was cross-sectional, and therefore we could not conclusively determine causal links between variables. Longitudinal studies in future would assist our understanding of the causal links between workplace aggression and other variables. Further, this study analyzed allied health professionals overall, limiting conclusions based on specific allied health professions; therefore, future research is encouraged to investigate whether specific professions within the allied health group experience more or less workplace aggression and the possible antecedents surrounding workplace aggression.

Conclusions

This study emphasises the importance of considering stressors in the working environment when investigating possible antecedents of bullying and extending these to other aggression types of violence among allied health professionals. Further, the importance of investigating the effects of NA as an antecedent of aggression was highlighted. Given the essential role and proportion of allied health professionals in the healthcare workforce, more research should be directed toward gaining a better understanding of this occupational group and the issues they face, to consequently improve the working environments of these professionals.

REFERENCES

[1] Rintoul, Y., Wynaden, D., & McGowan, S. *Managing Aggression in the Emergency Department: Promoting an Interdisciplinary Approach.* International Emergency Nursing, 2009, 17(2), 122-127.
[2] Farrell, G., Bobrowski, C., & Bobrowski, P. *Scoping Workplace Aggression in Nursing: Findings from an Australian Study.* Journal of Advanced Nursing, 2006, 55(6), 778-787.
[3] Alexander, C., Fraser, J., & Hoeth, R. *Occupational Violence in an Australian Healthcare Setting: Implications for Managers.* Journal of Healthcare Management, 2004, 49(6), 377-92.
[4] Stubbs, B. & Sengupta, S. *Aggression: Is It a Problem for Occupational Therapists?* The British Journal of Occupational Therapy, 2008, 71(8), 313-313.
[5] Australian Institute of Health and Welfare Australia's Health 2010. Australia's Health Series No. 12. Cat. No. Aus 122. Canberra: Author, 2010.
[6] Keane, S., et al. *The Rural Allied Health Workforce Study (Rahws): Background, Rationale and Questionnaire Development.* Rural and Remote Health, 2008, 8(4), 1132.
[7] Keane, S., Smith, T., Lincoln, M., & Fisher, K. *Survey of the Rural Allied Health Workforce in New South Wales to Inform Recruitment and Retention.* Australian Journal of Rural Health, 2011, 19(1), 38-44.
[8] Johnson, J.V. & Hall, E.M. *Job Strain, Work Place Social Support, and Cardiovascular Disease: A Cross-Sectional Study of a Random Sample of the Swedish Working Population.* American Journal of Public Health, 1988, 78(10), 1336-1342.

[9] Karasek, R. *Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign.* Administrative science quarterly, 1979, 285-308.
[10] Notelaers, G., et al. *Testing the Strain Hypothesis of the Demand Control Model to Explain Severe Bullying at Work.* Economic and Industrial Democracy, 2012, 34(1), 69-87.
[11] Tuckey, M.R., Dollard, M.F., Hosking, P.J., & Winefield, A.H. *Workplace Bullying: The Role of Psychosocial Work Environment Factors.* International Journal of Stress Management, 2009, 16(3), 215-232.
[12] Baillien, E., et al. *The Demand-Control Model and Target's Reports of Bullying at Work: A Test within Spanish and Belgian Blue-Collar Workers.* European Journal of Work and Organizational Psychology 2011, 20(2), 157-177.
[13] Fox, S. & Stallworth, L.E. *Racial/Ethnic Bullying: Exploring Links between Bullying and Racism in the Us Workplace.* Journal of vocational behavior, 2005, 66(3), 438-456.
[14] Hoel, H. & Cooper, C.L. *Destructive Conflict and Bullying at Work.* Unpublished report, University of Manchester Institute of Science and Technology (UMIST) 2000; Available from: http://www.rowleyassoc.com/wp-content/uploads/Conflict-Bullying-at-Work.pdf.
[15] Skogstad, A., Torsheim, T., Einarsen, S., & Hauge, L.J. *Testing the Work Environment Hypothesis of Bullying on a Group Level of Analysis: Psychosocial Factors as Precursors of Observed Workplace Bullying.* Applied Psychology, 2011, 60(3), 475-495.
[16] Einarsen, S., Hoel, H., Zapf, D., & Cooper, C.L., *The Concept of Bullying and Harrassment at Work: The European Tradition,* in *Bullying and Harrassment in the Workplace: Developments in Theory, Research and Practice,* S. Einarsen, et al., Editors. 2011, CRC Press: Boca Raton. p. 3-39.
[17] Hesketh, K.L., et al. *Workplace Violence in Alberta and British Columbia Hospitals.* Health Policy, 2003, 63, 311-321.
[18] Stubbs, B. *Workplace Aggression and Violence: Moving Forward Together.* Physiotherapy Research International, 2009, 14(4), 199-202.
[19] Vartia, M. *The Sources of Bullying–Psychological Work Environment and Organizational Climate.* European Journal of Work and Organizational Psychology, 1996, 5(2), 203-214.
[20] Einarsen, S., Raknes, B.I., & Matthiesen, S.B. *Bullying and Harassment at Work and Their Relationships to Work Environment Quality: An Exploratory Study.* European journal of work and organizational psychology, 1994, 4(4), 381-401.
[21] Hansen, Å.M., et al. *Bullying at Work, Health Outcomes, and Physiological Stress Response.* Journal of Psychosomatic Research, 2006, 60(1), 63-72.
[22] Takaki, J., et al. *Workplace Bullying Could Play Important Roles in the Relationships between Job Strain and Symptoms of Depression and Sleep Disturbance.* Journal of occupational health, 2010, 52, 367-374.
[23] Felson, R.B. *"Kick'em When They're Down".* The Sociological Quarterly, 1992, 33(1), 1-16.
[24] Watson, D. & Clark, L.A. *Negative Affectivity: The Disposition to Experience Aversive Emotional States.* Psychological Bulletin, 1984, 96(3), 465-490.
[25] Fogarty, G.J., et al. *Predicting Occupational Strain and Job Satisfaction: The Role of Stress, Coping, Personality, and Affectivity Variables.* Journal of vocational behavior, 1999, 54(3), 429-452.
[26] Spector, P.E., Zapf, D., Chen, P.Y., & Frese, M. *Why Negative Affectivity Should Not Be Controlled in Job Stress Research: Don't Throw out the Baby with the Bath Water.* Journal of Organizational Behavior, 2000, 21(1), 79-95.

[27] Mikkelsen, E.G. & Einarsen, S. *Relationships between Exposure to Bullying at Work and Psychological and Psychosomatic Health Complaints: The Role of State Negative Affectivity and Generalized Self–Efficacy.* Scandinavian Journal of Psychology, 2002, 43, 397-405.
[28] Caplan, R., et al. Job Demands and Worker Health: Main Effects and Occupational Differences. Ann Arbour, MI: The Institute for Social Research, 1980.
[29] Karasek, R. Job Content Questionnaire and User's Guide. LA: Department of Industrial and Systems Engineering, 1985.
[30] Watson, D., Clark, L.A., & Tellegen, A. *Development and Validation of Brief Measures of Positive and Negative Affect: The Panas Scales.* Journal of Personality and Social Psychology, 1988, 54, 1063-1070.