The Prevalence of Coworker Conflict Including Bullying in a Unionized U.S. Public Sector Workforce

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Workplace violence is an enormous problem worldwide; incidents where the perpetrator is a current or former employee are an important dimension. This large cross-sectional survey examined the prevalence of this problem among a U.S. state government unionized public sector workforce. Using participatory action research methods, we conducted a web-based survey of members of that workforce from a single northeast U.S. state, receiving 11,874 completed surveys (response rate: 71.8%). Overall, 10.0% of the respondents indicated that they had been bullied at work during the prior 6 months, with 71.9% of those who reported regular bullying identifying the perpetrator as a supervisor and/or top management. The prevalence of bullying was similar to the rates reported in Europe and Scandinavia (5%–30%). Those reports also identified the person(s) responsible for the behavior as being predominantly of higher status within the organization.

Keywords: Type III workplace violence; workplace bullying; participatory action research; emotional abuse; negatives acts

Workplace violence is an enormous problem worldwide, one that has received increasing attention in the United States and elsewhere over the past decade. The economic burden of workplace violence in the United States is estimated to be billions of dollars annually, including lost wages, medical costs, support costs, lawsuits,

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and other factors (Schmidtke, 2011). A widespread and costly segment of this problem includes those actions, which are perpetrated by a current or former fellow employee, so-called Type III violence. A typology or classification rubric for workplace violence has been developed based on the relationship between the perpetrator and the target of workplace violence (University of Iowa Injury Prevention Research Center, 2001). The rubric was conceptualized to include both fatal and nonfatal events, recognizing that although homicides are a leading cause of worker injury death, they are rare relative to nonfatal incidents. Type I refers to situations involving criminal intent (e.g., robbery), Type II includes those incidents involving a customer/client relationship with the worker (e.g., health care patient), whereas Type IV refers to domestic violence that spills over into the workplace. Type III incidents, the focus of this study, include physical assaults and even homicide but much more commonly are psychological or emotional in nature. Type III workplace violence is associated with lost or decreased productivity, absenteeism, low employee morale, decreased job satisfaction, and increased turnover (Jauregui & Schnall, 2009; Lutgen-Sandvik, Tracy, & Alberts, 2007). Workplace bullying, which refers to situations where an employee is repeatedly subjected to negative and aggressive behaviors at work, has been associated with higher levels of anxiety, depression, irritation, and psychosomatic complaints (Hogh, Mikkelsen, & Hansen, 2011; Niedl, 1996; Nielsen & Einarsen, 2012).

The primary purpose of this article is to report on the prevalence of Type III violence, which we will refer to as *coworker conflict*, in a large unionized public sector workforce employed across a large northeastern U.S. state. Although the sample may not be generalizable to the United States as a whole, the article begins to fill a gap in the literature by presenting epidemiologic data from a large sample of U.S. workers ($N = 11{,}874$) and allows us to compare the prevalence and severity of the problem in this segment of the U.S. workforce with that in other parts of the world, particularly Europe. The importance of the present survey includes its size, high response rate (72%), and utility in establishing an estimate of coworker conflict in the United States.

DEFINITIONS AND MEASUREMENT OF TYPE III VIOLENCE

Globally, a range of terms are used to describe Type III violence including *bullying*, *harassment*, *mobbing*, *psychological violence*, *emotional abuse*, *coworker conflict*, and *incivility*. Fortunately, the definitions of bullying and harassment are increasingly converging (Hoel, Glasø, Hetland, Cooper, & Einarsen, 2010), with a focus on characteristics such as unwanted negative behaviors, persistence, duration, and imbalance of power between perpetrator and target (Di Martino, Hoel, & Cooper, 2003; Einarsen, Hoel, Zapf, & Cooper, 2003). Bullying refers to situations where an employee is repeatedly subjected to negative and aggressive behaviors at work, primarily of a psychological nature (Leymann, 1996), with the effect of humiliating, intimidating, frightening, or punishing the target (Einarsen, Hoel, & Notelaers, 2009). The term *workplace bullying* extends beyond protected group- or class-targeted behavior (such as sexual or racial harassment; Einarsen et al., 2003; Hoel & Cooper, 2000). Bullying behaviors are associated with serious health and financial costs to the workforce and organization, including increased health care expenditures, absenteeism, turnover, and impaired performance (Hoel, Sheehan, Cooper, & Einarsen, 2011; Hogh et al., 2011; Nielsen & Einarsen, 2012; Vartia, 2001). Workplace incivility by contrast refers to rude and discourteous behaviors, which connote a lack of regard for others (Andersson & Pearson 1999). Leymann (1996) found that the incivility that occurs frequently in most workplaces

is generally not associated with the health consequences associated with bullying. Other authors, however, have found that low-frequency insidious maltreatment can occasionally cause greater psychological stress, can damage individual psychosomatic functioning, and may even lead to violence (Cortina, Magley, Williams, & Langhout, 2001). For a more in-depth discussion of the terminology and its history, see Lutgen-Sandvik et al. (2007). A growing literature has examined a range of approaches to the measurement of coworker conflict, particularly workplace bullying. Two main approaches have emerged: one based on the use of an inventory of negative acts (Leymann, 1992) and the second, based on the use of a definition of bullying. It is often argued that the former is a more objective measure and the latter is an assessment of how the acts are subjectively perceived, but the difference is probably more one of degree. When defining bullying by the use of a checklist of negative acts, European researchers have primarily used the criterion of at least one negative act experienced on a weekly basis (Einarsen et al., 2003; Hoel & Cooper, 2000), whereas in the United States, Lutgen-Sandvik et al., in their studies of U.S. Michigan workers, used a minimum of two acts on a weekly basis. It should be emphasized, however, that a clear threshold that negative behavior must reach before being labeled *bullying* does not exist. Hoel, Cooper, and Faragher (2001) argue that given the subjective nature of the bullying experience, its prevalence is best measured by means of the self-labeling approach.

PREVALENCE OF COWORKER CONFLICT

A large and expanding literature, led by European researchers in the 1990s, has documented the prevalence of bullying (Einarsen & Skogstad, 1996; Hoel & Cooper, 2000; Hoel et al., 2001;Lutgen-Sandvick et al., 2007), individual and organizational risk factors for bullying (Einarsen, Hoel, Zapf, & Cooper, 2011; Einarsen, Raknes, & Matthiesen, 1994; Hogh et al., 2011), as well as individual and organizational consequences (Einarsen & Mikkelsen, 2003; Fox & Stallworth, 2005; Hoel, Einarsen, & Cooper, 2003; Hoel et al., 2011; Hogh et al., 2011; Nielsen & Einarsen, 2012). The prevalence of bullying has been estimated to be between 5% and 30% depending on the way the concept is operationalized and the study methodology (Paoli & Merllié, 2001; Zapf, Einarsen, Hoel, & Vartia, 2003). When the concept of bullying has been measured using a checklist of negative acts that may constitute bullying behavior, the prevalence has been significantly greater than when asking subjects to self-label as having been bullied (Einarsen et al., 2009).

METHODS

The current survey was conducted in a northeastern U.S. state in late 2009 and early 2010. All aspects of the study were approved by the University of Maryland Institutional Review Board.

Participatory Action Research Approach

Using participatory action research (PAR) methods, the research team convened a project advisory group (PAG) to assist in study design, implementation, and the recruitment of subjects. A PAR framework recognizes and incorporates the legitimate and valuable input of the study subjects in all phases of the research process. PAR is particularly appropriate

for the highly complex and dynamic world of work, where the worker's voice is critical to understanding the context and conditions of work and identifying opportunities for action. PAR theory and practice are based on an ethic of social justice (Johnson, 2005; McPhaul & Lipscomb, 2005) and, as such, draws on the expertise of all workplace partners including workers, their union representatives, and management in the pursuit of practical solutions to hazardous workplace conditions (Israel et al., 2010). The 10-member PAG included representatives of state agencies and the unions that represent most of the workforce. The PAG helped refine the survey instrument, strategized about how to maximize survey response rate by assuring anonymity and access, and was instrumental in the recruitment of state agencies for the study. Ultimately, five state agencies agreed to participate. The number of participants per agency ranged from 420 to 4,325. The first of these, a small social service agency (420 respondents, 94% response rate), was used as the pilot site and, as such, these data are not included in this analysis. The four other agencies, ranging from 972 to 4,325 respondents each, included two large agencies (Agency 1 and Agency 2) that are primarily administrative, but that also have service and regulatory functions, and a third large agency (Agency 3) that is divided between administrative and field activities. Participants from the fourth agency (Agency 4) included employees of three large regionally based semiautonomous mental health centers that provide residential and/or outpatient care to the chronically mentally ill and are part of a larger statewide system. Collectively, the agencies represent most of the major functions performed by state government, namely administrative, service, regulatory, field, and institutional services.

At each participating agency/facility, the project's coordinator met with a group of managers, workers, and union representatives to plan the administration of the survey. The interrelated goals were to maximize participation (response rate), protect respondents' confidentiality and anonymity, and minimize the disruption to the agency's operation. In most agencies, most employees had a work e-mail account. A joint introductory e-mail/memorandum was sent to all employees by the management and union representatives. Then each employee received an e-mail from the principal investigator describing the project, the survey, and promising confidentiality and anonymity. The e-mail included a hyperlink that would connect the employee directly to the survey, which was housed behind the University of Maryland, Baltimore's (UMB) firewall. For those employees without work e-mail access, we provided paper copies of the survey with a stamped envelope in which they could directly return the completed survey to UMB. Employees were also provided with contact information for a university-based member of the research team whom they could contact if they had a question or concern or a preference to not complete the survey online. Following the initial solicitation, 1- and 2-week reminder e-mails were sent.

Survey Measures

The questionnaire survey was five pages in length (paper version) and included 81 questions, with a focus assessing the extent, severity, and impact of Type III violence (Appendix). The survey began with a six-question battery derived from Einarsen's Negative Act Questionnaire (NAQ; Einarsen & Raknes, 1997). Next, employees were provided the following definition of bullying:

> Bullying can be described as having taken place when abusive behavior is repeated over a period of time and when the victim experiences difficulties in defending him or herself in this situation. It is not bullying if the incident does not occur repeatedly.

and asked if they had experienced workplace bullying in the previous 6 months. Those who reported any of the Type III behaviors, negative acts and/or bullying, were asked a series of questions including the relative position within the organization of the perpetrator(s), the actions that were taken by the respondent, the organizational response, and the impact on the respondent. Finally, individuals were asked a series of demographic questions, although care was taken to preserve anonymity. As such, we did not ask employees' job title or organizational position but instead asked them the bargaining organization/union to which they belonged, gender, age (using 10-year categories), and work tenure (using similar categories).

Einarsen's 21-item list of negative acts (Einarsen & Raknes, 1997) was used in the survey of our pilot agency. However, as plans were being developed to recruit other agencies, our PAG expressed concern about many of the NAQ items, which they perceived as more subjective, somewhat "minor," and even legitimate "progressive discipline" rather than negative acts. As a result of these discussions, the research team selected 6 of the 21 items (Cronbach's alpha = 0.90) for inclusion in the final survey tool. The wording of the six questions was modified where necessary to be linguistically and culturally relevant to the U.S. public sector workplace. The six negative acts selected were those judged to be most serious and included being (a) ignored or shunned, (b) subjected to insulting/offensive remarks, (c) humiliated or ridiculed, (d) shouted or raged at, (e) subjected to excessive teasing/sarcasm, and (f) intimidated/threatened.

Analysis

As per Hoel et al. (2001), our data analysis of the bullying data collapsed the responses into three categories: no bullying (n = 10,692); *occasional bullying* (n = 896), defined as less than once per week; or *regular bullying* (n = 286), defined as at least once per week. In an effort to also evaluate the prevalence of and factors related to negative acts in the absence of self-identifying as a "victim of bullying," we further categorized those who responded "no" to the bullying question (n = 10,692) into three categories. Those reporting one or more of the six negative acts at least weekly (but no "bullying") were categorized as "regular NAQ" (n = 684), those reporting one or more negative act less than once per week in the past 6 months (but no bullying) were categorized as "occasional NAQ" (n = 3,315), and those who reported no NAQ (and no bullying) in the past 6 months were categorized as "none" (n = 6,693). This coding allowed us to evaluate the combined checklist and definition of bullying measures as five mutually exclusive categories.

The internal consistency of selected survey questions was assessed using Cronbach's alpha. Pearson chi-square tests were used to compare differences between groups. Probability values less than .05 were considered statistically significant. All statistical analyses were conducted with Stata 10 and Statistical Package for Social Sciences (SPSS) Version 19.

RESULTS

There were 11,874 completed surveys (defined as responding to all six NAQ and the bullying question) that were received from the four agencies. For three agencies, it was possible to calculate a precise response rate; the overall rate was 71.8% and the agency-specific rates ranged from 61.5% to 81.9%. At the fourth agency, the e-mail distribution

list provided by the agency reportedly included a small number of employees who had recently left the agency but had not been deleted from the database upon separation from the agency. Additionally, some field employees did not have access to e-mail, and they were offered paper versions of the survey. For both of these reasons, there was some uncertainty about the number of employees from that agency that were eligible for the survey (denominator). We received 4,325 completed surveys from this agency, but because of the uncertainty about the exact denominator, we were able to only estimate the response rate from this agency, a response rate ranging from 55% to 60%.

The overall sample was composed of 51.9% male, 85.3% White, and 59.8% older than 45 years of age (Table 1). As is typical of an American unionized public sector workforce, more than half of the sample had been in their current job for more than 5 years. The workforce demographics varied by type of agency, with a higher proportion of women (66%) employed in the mental health agency (Agency 4) compared with 27% women in Agency 3, which provides a combination of administrative and field services. The four agencies also varied somewhat by age, race, and job tenure (Table 1).

The overall reported prevalence of experiencing at least one of the six negative acts (NAQ) with any frequency in the past 6 months, irrespective of self-labeling as having been bullied, was 44.2%. Being ignored or shunned was the most frequently reported individual negative act, with 22.1% of respondents reported being subjected to the behavior less than weekly and 7.4% at least weekly. By contrast, 2.7% reported "intimidation with threatening behaviors" and 2.7% reported having "been shouted at or targeted with spontaneous anger (or rage)" at least once a week (Table 2).

Overall, 10.0% of the respondents indicated that they had been bullied at work during the prior 6 months; 7.6% reported occasional bullying, whereas 2.4% reported that they were bullied regularly. These data are consistent with the Hoel et al. (2001) study of a large sample of U.K. workers where the prevalence of "occasional" and "regular" bullying was reported by 9.2% and 1.4% of workers, respectively. In our sample, coworker conflict varied somewhat by gender, race, age, job tenure, bargaining unit, and by agency (Table 3). The magnitudes of the differences were modest or negligible, although many of the differences achieved statistical significance because of the large sample size. Non-White workers and younger workers (younger than 45 years old) were at somewhat greater risk of regular bullying, 3.0% versus 2.3% and 2.4% versus 2.2%, respectively. Workers with job tenure of 1 year or less were significantly less likely to report any form of conflict than those with greater job tenure. By bargaining unit, rates of being regularly bullied varied, with the union representing workers in support/administrative positions reporting a somewhat higher prevalence of regular bullying (2.6%) versus 2.0% for members of the "professional" union and 0.7% for members of the "management/confidential" association. Compared with the two administrative agencies (Agencies 1 and 2), the prevalence of reported "regular bullying" was two- to threefold greater in the institutional agency (Agency 4) and in the agency that included a large number of "field-based" employees (Agency 3).

Those who reported at least one of the negative acts and/or being subjected to bullying were asked to identify the relative organizational position of the person(s) responsible for the most bothersome act. Respondents could select more than one individual. The fact that these percentages summed to more than 100% indicates that multiple bullies were involved in some of the bullying (Table 4). Of note is that among those reporting regular NAQ, 30.6% identified the perpetrator as a coworker, whereas among those who reported regular bullying, a coworker was identified by only 20.7%. By contrast, 52.3% of those

TABLE 1. Description of Sample for Individual Agencies and All Agencies Combined

Sample Characteristics	Total *N* (%)	Admin (Agency 1) (*N* = 3,996) *N* (%)	Admin/Regulatory (Agency 2) (*N* = 2,581) *N* (%)	Admin/Field (Agency 3) (*N* = 4,325) *N* (%)	Mental Health (Agency 4) (*N* = 972) *N* (%)	*p* Value
Gender						<.001
Male	5,656 (51.9)	1,503 (40.7)	957 (41.1)	2,902 (72.6)	294 (33.8)	
Female	5,232 (48.1)	2,186 (59.3)	1,373 (58.9)	1,097 (27.4)	576 (66.2)	
Race						<.001
Non-White	1,490 (14.7)	577 (16.3)	366 (16.5)	452 (12.8)	95 (11.1)	
White	8,655 (85.3)	2,967 (83.7)	1,856 (83.5)	3,070 (87.2)	762 (88.9)	
Age						<.001
≤35 years	1,980 (17.9)	866 (23.1)	363 (15.2)	598 (14.8)	153 (17.4)	
36–45 years	2,498 (22.3)	842 (22.4)	448 (18.8)	1,015 (25.1)	163 (18.5)	
46–55 years	4,290 (38.8)	1,375 (36.6)	897 (37.6)	1,672 (41.4)	346 (39.3)	
≥56 years	2,321 (21.0)	673 (17.9)	675 (28.3)	754 (18.7)	219 (24.9)	

(Continued)

TABLE 1. Description of Sample for Individual Agencies and All Agencies Combined (*Continued*)

Sample Characteristics	Total *N* (%)	Admin (Agency 1) (*N* = 3,996) *N* (%)	Admin/Regulatory (Agency 2) (*N* = 2,581) *N* (%)	Admin/Field (Agency 3) (*N* = 4,325) *N* (%)	Mental Health (Agency 4) (*N* = 972) *N* (%)	*p* Value
Tenure in current job						<.001
≤1 year	1,724 (15.6)	790 (21.0)	583 (24.4)	243 (6.0)	108 (12.2)	
2–5 years	3,125 (28.2)	1,070 (28.4)	446 (18.7)	1,286 (31.8)	323 (36.5)	
6–10 years	1,824 (16.5)	568 (15.1)	504 (21.1)	613 (15.2)	139 (15.7)	
11–20 years	1,967 (17.8)	576 (15.3)	377 (15.8)	917 (22.7)	97 (10.9)	
>20 years	2,440 (22.0)	759 (20.2)	477 (20.0)	985 (24.4)	219 (24.7)	
Bargaining unit						<.001
Professional	5,851 (56.1)	1,901 (51.0)	1,500 (63.6)	2,296 (57.5)	154 (42.5)	
Support/ administrative	3,916 (37.5)	1,648 (44.2)	648 (27.5)	1,443 (36.2)	177 (48.9)	
Management/ confidential	668 (6.4)	177 (4.8)	211 (8.9)	249 (6.2)	31 (8.6)	

Note. Numbers (*N*) may not sum to total because of missing data. Admin = administrative.

TABLE 2. Frequency of Reports of Each of Six Negative Acts Across the Entire Sample (N = 11,874)

Variables	Humiliated or Ridiculed *N* (%)	Insulting Remarks *N* (%)	Intimidated Threatening Behavior *N* (%)	Ignored or Shunned *N* (%)	Excessive Teasing or Sarcasm *N* (%)	Shouted at or Target of Rage *N* (%)
Not in past 6 months or never	9,100 (76.6)	8,823 (74.3)	10,287 (86.6)	8,481 (71.4)	9,992 (84.2)	9,916 (83.5)
At least once during past 6 months	1,645 (13.9)	1,787 (15.0)	990 (8.3)	1,787 (15.0)	937 (7.9)	1,360 (11.5)
More than once a month	548 (4.6)	630 (5.3)	296 (2.5)	778 (6.6)	433 (3.6)	345 (2.9)
More than once a week	359 (3.0)	399 (3.4)	172 (1.4)	441 (3.7)	297 (2.5)	145 (1.2)
Daily or almost daily	222 (1.9)	235 (2.0)	129 (1.1)	387 (3.3)	215 (1.8)	108 (0.9)

Note. Numbers (*N*) may not sum to total because of missing data.

who reported regular NAQ and 71.9% of those who reported regular bullying identified the perpetrator as a supervisor, top manager, or both.

When asked to what extent the work conflict negatively impacted their work, their personal life, and their intention to remain in their current job, we found a clear dose–response relationship across the measures of bullying, with nearly 50% of those who were regularly bullied reporting "very much" for all three impacts (Table 5).

DISCUSSION

Coworker conflict, including bullying, is a type of workplace violence and represents an important psychosocial hazard in the modern workplace. As an emerging occupational health hazard, it is essential that coworker conflict and bullying be accurately measured and that the personal health and work impacts be fully assessed. Precise estimates of coworker conflict are needed to benchmark the effectiveness of workplace interventions.

Toward that end, this large study of unionized public sector workers documents the extent, severity, and perpetrator characteristics of Type III conflict and violence in one large northeast U.S. state. We found the prevalence of bullying to be similar to the rates reported in Europe and Scandinavia, where the prevalence of bullying has been estimated to be between 5% and 30% (Hoel et al., 2001; Mikkelsen & Einarsen, 2001; Paoli & Merllié, 2001; Zapf et al., 2003) depending on the study methodology and the way the concept is operationalized. Within the United States, Lutgen-Sandvik et al. (2007), who operationalized bullying as *at least two (of 22) negative acts, weekly or more often, for at least 6 months*,

TABLE 3. Prevalence of Bully and/or Negative Act Questionnaire (NAQ) by Demographic and Selected Work Characteristics

Variables (N = 11,874)	No Bully and No NAQ N (%)	≥1 NAQ Occasionally and No Bully N (%)	≥1 NAQ Regularly and No Bully N (%)	Bully Occasionally N (%)	Regularly Bullied N (%)	p Value
Gender						<.01
Male	3,280 (58.0)	1,507 (26.6)	356 (6.3)	376 (6.6)	137 (2.4)	
Female	3,049 (58.3)	1,450 (27.7)	241 (4.6)	381 (7.3)	111 (2.1)	
Race						<.05
Non-White	896 (60.1)	368 (24.7)	79 (5.3)	102 (6.8)	45 (3.0)	
White	4,956 (57.3)	2,401 (27.7)	485 (5.6)	618 (7.1)	195 (2.3)	
Age						<.05
≤35 years	1,162 (58.7)	547 (27.6)	106 (5.4)	124 (6.7)	41 (2.1)	
36–45 years	1,431 (58.0)	660 (26.8)	134 (5.4)	176 (7.1)	65 (2.6)	
46–55 years	2,398 (55.9)	1,212 (28.3)	254 (5.9)	328 (7.6)	96 (2.2)	
≥56 years	1,422 (61.3)	594 (25.6)	115 (5.0)	138 (6.0)	50 (2.2)	
Agency						<.01
Agency 1	2,454 (61.4)	1,083 (27.1)	169 (4.2)	237 (5.9)	53 (1.3)	
Agency 2	1,547 (59.9)	681 (26.4)	117 (4.5)	196 (7.6)	40 (1.5)	
Agency 3	2,270 (52.5)	1,212 (28.0)	344 (8.0)	346 (8.0)	153 (3.5)	
Agency 4	422 (43.4)	339 (34.9)	54 (5.6)	117 (12.0)	40 (4.1)	

Tenure in current job						<.01
≤1 year	1,104 (64.0)	448 (26.0)	63 (3.7)	86 (5.0)	23 (1.3)	
2–5 years	1,811 (58.0)	835 (26.7)	175 (5.6)	223 (7.1)	81 (2.6)	
6–10 years	1,006 (55.2)	500 (27.4)	123 (6.7)	152 (8.3)	43 (2.4)	
11–20 years	1,103 (56.1)	541 (27.5)	118 (6.0)	161 (8.2)	44 (2.2)	
>20 years	1,396 (57.2)	695 (28.5)	134 (5.5)	154 (6.3)	61 (2.5)	
Bargaining unit						<.01
Professional	3,492 (59.7)	1,579 (27.0)	260 (4.4)	405 (6.9)	115 (2.0)	
Support/ administrative	2,187 (55.8)	1,064 (27.2)	295 (7.5)	270 (6.9)	100 (2.6)	
Management/ confidential	449 (67.2)	172 (25.7)	17 (2.5)	25 (3.7)	5 (0.7)	

Note. Numbers (*N*) may not sum to total because of missing data.

TABLE 4. Prevalence of Negative Act Questionnaire (NAQ) and Bullying by Person Responsible for Behavior

Variables (N = 11,874)	≥1 NAQ Occasionally and No Bully N (%)	≥1 NAQ Regularly and No Bully N (%)	Bully Occasionally N (%)	Regularly Bullied N (%)
Top manager only (TM)	378 (13.2)	42 (6.8)	125 (15.2)	36 (13.3)
Supervisor only (Supe)	351 (12.2)	66 (10.6)	144 (17.5)	42 (15.6)
Coworker only	1,104 (38.5)	190 (30.6)	235 (28.5)	56 (20.7)
Subordinates only	309 (10.8)	44 (7.1)	46 (5.6)	6 (2.2)
>1 Perp, TM/Supe	552 (19.2)	217 (34.9)	235 (28.5)	116 (43.0)
>1 Perp, no TM/Supe	174 (6.1)	62 (10.0)	40 (4.8)	14 (5.2)

Note. Numbers (N) may not sum to total because of missing data. Perp = perpetrator.

found 28% (n = 113) of respondents subjected to bullying. However, when they used the self-labeling definition, 9.4% of respondents (n = 38) were identified as bullied. Key differences between their sample and ours were study methodology; they used a number of social networking and advertising techniques to draw U.S. workers to their website obtaining a sample size of 469 (from among 18 industries and 33 states) with an unknown response rate.

In the United States, public sector workers (state, county, and local government workers) experience a disproportionate risk of nonfatal work-related violence (all sources or "types"), with a rate of 33.0 per 1,000 employees compared with 9.9 and 12.1 per 1,000 employees for private and federal workers, respectively (Duhart, 2001). Much of this is believed to be Type II, with the perpetrator being a client, patient, or customer, rather than a fellow employee. Employees working in public administration, health care, and education (Mikkelsen & Einarsen, 2001; Niedl, 1995; Notelaers, Vermunt, Baillien, Einarsen, & De Witte, 2011; Vartia, 1993; Zapf, 1999), as well as public sector employees, have been found to be at greater risk for coworker conflict compared to their private sector counterparts (Notelaers et al., 2011; Zapf et al., 2003). Proposed reasons for the higher rate of violence among state, county, and local government workers include exposure to high-risk activities, for example, providing services to the incarcerated, and to severely troubled developmentally disabled, juvenile offenders, and mentally ill. Other features of the public sector workforce, which may contribute to the risk of Types III violence, include various forms of poor work organization. Organizations where status-based power differentials exist (Roscigno, Lopez, & Hodson, 2009) and where leadership styles are characterized by "noncontingent punishment" (Hoel et al., 2010), both features of public sector workplaces, have been associated with supervisory bullying. Whether there are substantially different rates of coworker conflict in U.S. public sector workplaces as compared to private sector workplaces will require more research. In addition, surveys of workers in other regions and occupational sectors of the United States are needed to generalize our findings to the broader U.S. workforce.

Consistent with previously published studies of workplace bullying, the position of the person(s) responsible for regular bullying in our sample was predominantly (71.9%)

TABLE 5. Self-Reported Impact on Personal and Work Life Associated With Negative Act Questionnaire (NAQ) and Bullying

Variable (N = 11,874)	Not at All N (%)	Not Much N (%)	Somewhat N (%)	A Lot N (%)	Very Much N (%)	Total	
Experience negatively affected work							$p < .01$
≥1 NAQ occasionally and no bully	1,317 (45.1)	764 (26.2)	619 (21.2)	137 (4.7)	80 (2.7)	2,917	
≥1 NAQ regularly and no bully	148 (24.1)	122 (19.9)	179 (29.2)	87 (14.2)	77 (12.6)	613	
Bully occasionally	72 (8.9)	110 (13.6)	301 (37.2)	168 (20.8)	158 (19.5)	809	
Bully regularly	10 (3.8)	10 (3.8)	47 (17.8)	69 (26.1)	128 (48.5)	264	
Experience influenced intent remain in job							$p < .01$
≥1 NAQ occasionally and no bully	1,791 (61.4)	379 (13)	445 (15.3)	134 (4.6)	169 (5.8)	2,918	
≥1 NAQ regularly and no bully	238 (38.8)	76 (12.4)	130 (21.20)	65 (10.6)	104 (17.0)	613	
Bully occasionally	162 (20)	113 (14)	220 (27.2)	127 (15.7)	187 (23.1)	809	
Bully regularly	25 (9.5)	13 (4.9)	61 (23.1)	44 (16.7)	121 (45.8)	264	
Experience negatively affected personal life							$p < .01$
≥1 NAQ occasionally and no bully	1,441 (49.4)	657 (22.5)	561 (19.2)	180 (6.2)	79 (2.7)	2,918	
≥1 NAQ regularly and no bully	168 (27.4)	105 (17.1)	151 (24.6)	102 (16.6)	87 (14.2)	613	
Bully occasionally	72 (8.9)	126 (15.6)	259 (32)	197 (24.4)	155 (19.2)	809	
Bully regularly	10 (3.8)	18 (6.8)	39 (14.8)	69 (26.1)	128 (48.5)	264	

Note. Numbers (N) may not sum to total because of missing data.

reported to be of higher status in the organization (i.e., supervisors, top management). Hoel et al. (2001) found that 74.7% of perpetrators of bullying were reported to be of a superior status to the target, and Quine (1999) reported that a senior manager or line manager was responsible for 54% of bullying. Our qualitative data from focus groups that were conducted as a separate part of this research (unpublished) suggest that supervisors play an important role in the working life of employees and their skills in managing employees vary greatly. Reports of deficient, as well as exemplary, supervisors emerged during the focus groups. A consistent theme at one large administrative agency was a work environment subject to frequent changes in the overall management philosophy as well as inconsistent expectations and lack of accountability on the part of both workers and supervisors, conditions that may place workers at a higher risk of being exposed to bullying.

Our data support the conceptualization that a pattern of negative acts from superiors is more likely to be labeled bullying than negative acts from coworkers and subordinates. Conflict between same-level employees may also be related to the organizational context and management style. Coworkers were more likely to be identified as perpetrators of occasional versus regular bullying (20.9% vs. 14.4%). These figures are lower than those from the United Kingdom where colleagues were the perpetrator for 36.7% of those bullied (Hoel et al., 2001) but similar to data from U.K. public sector union members, where only 15.7% reported that coworkers were responsible for bullying (UNISON, 1997). Our finding that subordinates were identified as the person responsible for only a small percentage of occasional (4.6%) and regular bullying (1.3%) was not unexpected based on the literature and our ongoing discussion with workers and management representatives. Perhaps coworker conflict is a "downstream" effect of a certain type of management style or deficiency in supervision. This hypothesis is outside the realm of this article but should be considered when attempting to change the culture of an organization.

A particularly interesting finding from this analysis was the increased prevalence of reported bullying among respondents from the institutional agency (Agency 4) and the agency that included a large proportion of field based workers (Agency 3). These differences were not explained by variations in the demographic characteristics of the workforce in these agencies. Our current hypothesis for this finding is that workplaces at elevated risk for Type II violence, where the perpetrator is a client or customer, experience higher rates of coworker conflict because, at least in part, of the stress associated with providing services to potentially violent individuals. Additional work is planned to further explore this hypothesis.

Several studies have documented the individual and organizational impacts of bullying (Jauregui & Schnall, 2009; Lutgen-Sandvik et al., 2007; Schmidtke, 2011). In our survey, workers were asked the level of impact of the most bothersome act of coworker conflict on their personal and work lives and on their intention to remain in their job. We found that approximately 50% of those who reported experiencing regular (at least weekly) bullying responded "very much" to these impact questions. We noted a clear dose–response relationship between severity of conflict and all three types of impact. These findings, although only descriptive, support our classification of coworker conflict into four levels of severity and frequency (occasional negative act[s] but no self-reported bullying, regular [at least weekly] negative act[s] but no self-reported bullying, occasional bullying, and regular bullying). Although interventions to address coworker conflict should be directed to preventing the most serious bullying behaviors, our findings that even the experience of occasional negative acts impacts workers' personal and work lives suggests the need to address conflict that does not constitute bullying.

Our use of a PAR methodology led to the use of only a subset of items from the NAQ scale. The six questions selected from among the 21-item tool were those deemed most serious by the PAG, which included both management and union representatives. The use of fewer items may have had a systematic effect on the responses to these questions, although we were unable to evaluate this in this study. As such, the prevalence of the six individual items should be interpreted with some caution. Our use of a standardized definition of bullying and the focus on these data in this article provide a valid comparison of our overall data with that from investigators who used this definition of bullying. It should also be noted that the use of a shorter, modified version of the NAQ involves less respondent burden and therefore is likely to be more acceptable to future U.S. workers and management groups. This modified version facilitated the recruitment of workplaces into the study and is likely to have been partially responsible for the high overall response rate (72%) for our survey.

There were several important strengths to our study, including our large sample size and high response rate. The broad cross-section of agencies and functions represented in this workforce sample is an additional strength. As such, we believe these findings should be generalizable beyond this sample of U.S. public sector workers. The use of a standardized definition of bullying allows us to compare our data with those from large samples in Europe and Scandinavia. An additional strength was the PAR framework, which not only contributed to survey development and the high response rate but also provided strong organizational buy-in to the overall project and subsequent efforts to address and reduce coworker conflict.

Limitations include the use of a cross-sectional study design, which limits our ability to infer causality. In an effort to assure anonymity and achieve a high response rate, we did not collect individual job titles, thereby limiting our ability to assess conflict at this more precise occupational level. As a surrogate for broad categories of job status, we asked which union they belonged to, which enabled us to compare professional and support job titles.

Conclusions and Practical Implications

This large study of unionized public sector workers documents the extent, severity, and perpetrator characteristics of Type III conflict and violence in one large northeast U.S. state. We found rates of bullying similar to the prevalence reported in Europe. Targets of bullying in this sample predominately attributed the behaviors to employees that were higher in status in the organization (i.e., supervisors, managers), a finding consistent with the European literature. Future research needs to examine the impact of interventions designed to address features of the work environment associated with coworker conflict, broadly described as work climate but with an emphasis on supervisor training, mentorship, and accountability.

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