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ORIGINAL ARTICLE

Bullying, Social Norms, and Reporting Behavior: A National Survey of Medical Training Programs

Danielle L. Terry, PhD, ABPP[a]; Jessica Graham[b]; Miranda A. Moore, PhD[c]; Christopher Terry, PhD[b]; Meredith Williamson, PhD, ABPP[d]

AUTHOR AFFILIATIONS:

[a] Family Medicine, Guthrie Medical Group, Sayre, PA, USA

[b] Elmira College, Elmira, NY

[c] Department of Family and Preventive Medicine, School of Medicine, Emory University, Atlanta, GA

[d] Texas A&M School of Medicine, Bryan, TX

CORRESPONDING AUTHOR:

Danielle L. Terry, Behavioral Science, Guthrie Robert Packer Hospital, Sayre, PA,
Danielle.terry@guthrie.org

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ABSTRACT

Background and Objectives: About half of medical residents report experiencing bullying behaviors in training settings, and these negative acts adversely impact the work environment in a variety of ways. Understanding perceptions of how often others report bullying behavior (descriptive norms) and how approving others are of these behaviors (injunctive norms) lays important groundwork for potential intervention studies in medical education. The primary aims of our study were to (a) examine the accuracy of descriptive and injunctive norms related to reporting bullying behaviors, and (b) determine whether individuals with larger self-other differences would be more likely to report bullying behaviors. We conducted exploratory analyses to examine associations between self-valuation (eg, self-compassion) and perceived risk of consequences of reporting bullying behavior. Our analyses also explored differences in perceptions of risk related to experiencing retaliation among women and those who identified as underrepresented in medicine.

Methods: Data were gathered and analyzed as part of the 2024 Council of Academic Family Medicine Educational Research Alliance survey of family medicine educators and practicing physicians.

Results: Faculty and staff working in family medicine education (N = 1,096) tended to be inaccurate when estimating others' behaviors and beliefs about reporting behavior. Self-other differences predicted one's tendency to engage in reporting bullying behavior.

Conclusions: Our study expanded on previous findings that suggested that those in medical education have inaccurate peer perceptions of attitudes and behaviors related to reporting bullying behavior. Further, our study provided additional support for studying the use of social norms interventions as a strategy to modify maladaptive perspectives and behaviors in this setting.

INTRODUCTION

About half of medical residents report experiencing bullying behaviors in training settings,[1-3] which adversely impacts job satisfaction, rates of burnout, mental health concerns, and accidents at work.[1,4,5] Bullying has been operationalized as negative acts that involve recurring malicious or intimidating behavior toward an individual. These behaviors negatively affect the recipient's confidence and self-esteem.[2,6] The most common negative acts in medical residency include belittling or undermining the recipient's work, as well as unjustly criticizing or monitoring their work. Indirect negative acts might include issuing a greater workload, ignoring opinions, or assigning work below one's level of competence.[7] Attending physicians and support staff have been identified as the most common sources of negative acts.[8]

Social Norms as a Driver of Behavior

Over the past several decades, social norms research has highlighted the tendency for individuals to socially conform and adjust

their behaviors based on their reference (or peer) group.[9-12] The Theory of Planned Behavior highlights several factors that influence behavioral intention(s). These include the attitudes about the behavior: (a) perceptions of behavioral control, and (b) perceived social norms of the behavior.[9,10] Much like the construct of self-efficacy,[13] perceived behavioral control refers to an individual's belief that they can achieve a specific goal. In cases where an individual does not believe they can achieve a behavior, they may be less motivated or likely to engage in a specific behavior.[14]

Social norms can be delineated into two types: (a) descriptive norms (ie, frequency with which a behavior occurs), and (b) injunctive norms (ie, perceptions of how acceptable a behavior is). Self-other difference (SOD) is a term that describes the difference in one's perception of what they *believe* others are doing compared to reality. SODs can predict behavior over time. Interventions that aim to modify normative perceptions have had the impact of predicting changes in a variety of behaviors, including voting, alcohol use, bullying other children, tax, and recycling behaviors.[15-21] Generally, these interventions suggest that individuals who believe that others are more tolerant of behaviors and/or engage in them more frequently are more likely to increase their behavior over time. Conversely, those who believe that others are less tolerant of behavior may reevaluate their own behavior and reduce it over time.

Reporting bullying behavior is essential to addressing problematic patterns that exist. However, medical providers are subject to a culture of self-condemnation[22,23] and often defer their own self-care.[24-27] Measures of self-valuation (ie, an individual's attention to their own well-being, prioritization of self-care, and tendency toward a growth mindset) suggest that physicians have less self-valuation compared to those in other professions.[24,25] Research has not examined how self-valuation may intersect with one's tendency to advocate when encountering negative acts in medical education, and conceptually, self-valuation may be considered important in self-advocacy (eg, reporting negative acts).

Social Norms, Bullying, and Medical Education

To date, normative interventions have not been used to modify perceptions and/or reporting of bullying behavior in graduate medical education. Female medical residents are more likely to experience bullying than male residents, and residents tend to hold inaccurate beliefs about bullying behavior.[7] Further, trainee estimates of injunctive norms (attitudes) about reporting bullying are even more inaccurate than estimates of descriptive norms. Previous studies have been limited by small sample sizes using convenience samples in limited geographic regions.[7,28] Further, those studies have not included faculty or attending physicians, who have been identified as the primary perpetrators of bullying[29] and may be in a position of privilege that allows them to report negative acts with less fear of retaliation. Understanding perceptions of injunctive and descriptive norms in reporting bullying and negative acts among faculty and staff working in medical education lays important groundwork for potential intervention studies.

Our study expanded on previous research that used a rural, two-site sample to examine SODs as well as gender differences in bullying.[7] Our study used a national sample of individuals, including faculty, working in family medicine education. The primary aims were to (a) examine the accuracy of the perceptions of injunctive and descriptive norms related to reporting bullying behaviors, and (b) determine whether those that had larger SODs would be more likely to report bullying behaviors. We conducted exploratory analyses to examine associations between self-valuation and perceived risk of consequences of reporting bullying behavior. Because previous research has suggested differential experiences of negative acts or bullying among women and underrepresented in medicine (URiM) individuals, our analyses also explored differences in perceptions of risk related to experiencing retaliation.

Our hypothesis was that SODs for injunctive and descriptive norms would significantly predict whether respondents reported bullying in their workplace. We also expected to find that women and URiM subgroups would report a greater perceived risk of retaliation. Finally, we expected that self-valuation would be positively associated with attitudes toward reporting bullying in the workplace.

METHODS

Data were gathered and analyzed as part of the 2024 Council of Academic Family Medicine (CAFM) Educational Research Alliance survey of family medicine educators and practicing physicians. Pretesting was conducted with family medicine educators who were not included in the sample to assess questions for readability. The study was approved by the American Academy of Family Physicians Institutional Review Board in October 2024, and the protocol has been published.[30]

Participants excluded student and resident members of the CAFM organizations. Due to concerns about survey fatigue, the sampling pool also excluded program directors, clerkship directors, and department chairs. Remaining individuals had an address in the United States or Canada. Individuals were sent a personalized greeting and a letter signed by the presidents of each of the four sponsoring organizations with a link to the survey via SurveyMonkey (SurveyMonkey Inc). Those who did not respond to the survey were sent a total of five weekly reminders. One additional and final reminder was sent 1 day prior to closing the survey.

The survey was distributed to 5,168 candidates. Of these, 230 were returned as undeliverable email addresses and were excluded, and 94 who had previously opted out of receiving surveys from SurveyMonkey also were excluded. The survey was delivered to a final sample of 4,844 members of the CAFM organizations. The total number of individuals who

responded and had a complete data set was 1,096 (23.02%). The survey was conducted between October 15, 2024, and November 22, 2024.

Measures

The survey included demographic information, perceived risk of retaliation, measures of injunctive and descriptive norms related to reporting bullying behavior, and self-valuation. Demographic information included age, gender identity, race/ethnicity, self-identification as URiM, highest degree earned, geographic region, and years in practice. Respondents also indicated their own perceived risk of retaliation on a 1 (extremely low risk for negative outcomes) to 7 (extremely high risk for negative outcomes) scale. This question was modified from previous studies assessing perceived risk and control[28,31] in medical settings and was used as a covariate in linear regression analyses.

Measures of personal and perceived descriptive and injunctive norms for reporting negative acts were derived from previous research examining norms in graduate medical education.[7] Respondents rated how often they reported negative acts in the last 12 months from 1 (never) to 5 (always). They also indicated how acceptable it was to report negative acts from 1 (completely unacceptable) to 5 (completely acceptable). Questions about peer estimates paralleled personal estimates, which is a precedent established in norms-related research.[32]

The Self-Valuation Scale[24] is a four-item measure with a Likert scale that has been used to examine providers' self-compassion and the extent to which they defer self-care. Items are rated on a 0 (always) to 4 (never) scale, and example items include "I put off taking care of my own health due to time pressure," and "When I made a mistake, I felt more self-condemnation than self-encouragement to learn from the experience." This measure has been used with physicians.[24,28] Higher scores indicate greater engagement in self-care and compassion. The reliability estimate for this sample was adequate (α = 0.80).

Analysis Plan

We examined characteristics of the sample using descriptive statistics. We determined SODs for injunctive and descriptive norms by subtracting the average perceived norm of the reference group from the norm level. Then, we used *t* tests to examine the accuracy of respondent's estimates for perceived and injunctive norms.

To examine whether SODs predicted respondents' tendency to report negative acts or bullying behaviors, we used multiple linear regression. Both regression analyses controlled for perceived risk of retaliation and perceived control to account for variables that are believed to predict behavioral intention according to the Theory of Planned Behavior. Then, one's tendency to report negative acts/bullying was regressed upon SODs for descriptive norms. This step was repeated for SODs related to injunctive norms.

For exploratory analyses, we used simple linear regression to examine associations between self-valuation and attitude toward reporting behavior as well as associations among gender, those who reported as URiM, and risk of retaliation.

RESULTS

Participants

The total number of responses to the survey was 1,195 (24.67% response rate). The total number of individuals who had a complete data set was 1,096 (23.02%). Respondents were an average of 47.51 (standard deviation [SD] = 11.78) years old and had approximately 3.42 years of work experience (SD = 0.87). Most identified as female (65.10%, *n* = 774) and White (75.15%, *n* = 898), and reported that they worked in an underserved area (61.9%, *n* = 739). Most served in a faculty role (44.9%, *n* = 536), and 17.5% (*n* = 205) identified as underrepresented in medicine (Table 1).

Accuracy of Normative Estimates

Overall, respondents indicated that they rarely reported, mentioned, or somehow addressed negative acts in the work environment (mean [M] = 1.86, SD = 0.94, 1 = never), but they were generally in favor of doing so (M = 4.20, SD = 1.05, 5 = completely acceptable). Participants believed that their peers were more likely to report, mention, or address negative acts in the work environment than they were themselves, $t(1082 = -14.03$, $P<0.01$, $d = 0.41$. However, they believed their peers were less *accepting* of reporting, mentioning, or addressing negative acts in the workplace, $t(1,079) = 16.93$, $P<0.01$, $d = 0.42$.

Perceived Descriptive Norms

We used multiple linear regression to determine whether reporting negative acts was predicted by self-other differences of descriptive norms (frequency of reporting) while covarying for perception of risk of reporting negative acts and perceived control of reporting negative acts in the educational environment. We found a significant regression model: $F(3, 934) = 146.76$, $P<0.01$, $R = 0.58$. Our analyses suggested that SODs of descriptive norms were an independent predictor of reporting negative acts, ($\beta = -.53$, $t(934) = -19.74$, $P<0.01$), such that the greater the SOD, the less likely individuals were to report bullying. Table 2 includes all regression analyses.

Perceived Injunctive Norms

We used multiple linear regression to find whether respondents' tendency to report negative acts was predicted by SODs, while covarying perception of risk to oneself and perceived control of negative acts in the medical environment. We found a significant regression model: $F(3, 932) = 163.02$, $P<0.01$, $R = 0.68$. Our analyses suggested that SODs of injunctive norms are an independent predictor of reporting negative acts, ($\beta = -.58$, $t(934) = -22.10$, $P<0.01$), such that the greater the difference in perception, the less likely individuals were to report bullying themselves.

TABLE 1. Demographic Information (*N* = 1,096)

Characteristic	N (%)
Age (*N* = 1,005), M(SD)	47.51(11.8)
Gender[a] (n = 1,189)	
Female	774 (65.1)
Male	390 (32.8)
Genderqueer/nonconforming	6 (0.5)
Nonbinary	8 (0.7)
Choose not to disclose	11 (0.9)
Identify as URiM (*n* = 1,184)	
Yes	209 17.7)
No	975 (82.4)
Race/ethnicity (*n* = 1,227)	
American indian/Alaskan Native	6 (0)
Asian	113 (9.2)
Black/African American	68 (5.5)
Hispanic/Latino/of Spanish Origin	78 (6.4)
Middle eastern/North African	20 (1.6)
Native hawaiian/Pacific Islander	3 (0)
White	898 (73.2)
Choose not to disclose	41 (3.3)
Role (*N* = 1,192)	
Administrator/manager	37 (3.1)
Behavioral specialist	85 (7.1)
Chair/vice chair	52 (4.4)
Clerkship director	29 (2.4)
Coordinator	12 (1.0)
Faculty	536 (45.0)
Practicing physician	98 (8.2)
Researcher	73 (6.1)
Residency director	207 (17.3)
Other	63 (5.3)
Degree (*N* = 1,190)	
DO	121 (10.2)
Master's level	65 (5.5)
MD	744 (62.5)
MD/PhD or DO/PhD	49 (4.1)
PhD	142 (11.9)
Other	69 (5.8)

[a]Respondents could choose multiple options.

TABLE 2. Regression Analyses

Variable	*β*	*T*	*P*
SOD for descriptive norm predicting reporting bullying[a]	−.53	−19.74	.01
SOD for injunctive norm predicting bullying[a]	−.58	−22.10	.01
Self-valuation predicting attitude toward reporting	.10	3.10	<0.01
URiM status and perceived risk of reporting	−.1	−5.35	<0.01
Female status and perceived risk of reporting	.63	12.33	<0.01

[a]Controlled for perceived risk of retaliation and perceived control consistent with the Theory of Planned Behavior
Abbreviations: SOD, self-other difference; URiM, underrepresented in medicine

Self-Valuation and Attitudes Toward Reporting Bullying

We used linear regression to determine whether an association existed between self-valuation and attitude toward reporting negative acts or bullying behaviors. Our analyses suggested that degree of self-valuation was significantly associated with attitude toward reporting bullying behavior: $F(1, 1{,}048) = 9.61$, $P<0.01$, $R = 0.09$; $\beta = 0.10$, $t(1048) = 3.10$, $P<0.01$. As one's level of self-valuation increased, their positive attitude toward reporting bullying behavior did as well, and conversely, those with lower self-valuation tended to have more negative attitudes toward reporting bullying behavior.

Perceptions of Retaliation Risk: URiM and Women

We used multiple linear regression to explore whether women and URiM were more likely to report concerns related to risk of retaliation if they reported negative acts or bullying, compared to those that did not identify as female or URiM. Our results suggested that those that identified as female were more likely to report concerns of risk: $\beta = -.17$, $t(965) = -5.35$, $P<0.01$. Those who identified as URiM were less likely to report concerns of risk of retaliation if they reported bullying, $\beta = 0.12$, $t(965) = 3.40$, $P<0.01$, compared to those that did not identify as URiM.

DISCUSSION

Our findings suggest low, self-reported rates of reporting behavior. This is notable given that nearly 50% of residents have reported experiencing negative acts while in training.[1-3] While this study does not provide an objective count of report frequencies, future research might use specific frequency estimates to better determine how those estimates compare to documented reporting behavior.

Similar to previous research examining normative estimates of rural medical residents,[7] family medicine faculty and staff overestimated how often they believed peers would report negative acts as compared to themselves. In this study, family medicine faculty and staff also believed their peers were less accepting of reporting these acts.

As expected, staff and faculty tended to be inaccurate when estimating others' behaviors and beliefs related to reporting negative acts. Our results expand on previous findings[7,28] regarding medical resident misperceptions of acceptability of reporting bullying experiences by highlighting attendings, supervisors, and others working within a medical education field who also experience misperceptions.

Respondents tended to believe that others were less accepting of reporting bullying behavior, which reflects a misperception of approval (injunctive norm) held by a majority of respondents at the individual level. This finding is consistent with some of the cultural expectations in medicine that have been identified as maladaptive.[22,25,27] Historically, providers tend to delay their own care and perceive others to be less accepting of colleagues' needs to address mental or psychosocial problems.[33] Believing that others in medicine are not as accepting about reporting bullying behavior is not

especially surprising given that the environment may promote deferral of self-care.[23,33-35]

Notable is that within a context where individuals perceived their colleagues as being less accepting of reporting bullying behavior, they also believed that their peers were more likely to report such behavior than they were themselves. Although causality cannot be determined with the present data, respondents may perceive themselves as operating within a medical culture that is less accepting of reporting, which may generate a fear of reporting at the individual level. A bystander effect,[36] in which one assumes that someone else is more likely to break a conformity norm and report a colleague's behavior, could account for this discrepancy. Future studies that examine the temporal relationship between attitudes and behavior might better elucidate the intersection of these two types of norms.

Consistent with previous research, we found SODs (ie, degree of misperception) predicted the likelihood of reporting negative acts. These findings suggest that the greater the perceived difference between one's own values and behaviors as compared to the surrounding medical culture, the more likely one is to remain silent in the face of negative peer or supervisor behavior that could be regarded as bullying.

These findings lay groundwork for intervention studies that seek to alter normative perceptions as a strategy to increase reporting behavior and positive attitudes surrounding reporting behavior. Normative interventions and campaigns that target other behaviors have shown that they can impact behavior over time.[17,18,37] If those working in medical education believed that others found it acceptable to report negative acts, and were safely engaging in the behavior, they might shift their own behavior over time. A reasonable approach is to include all colleagues involved in medical education, not just medical residents, in interventions intended to raise awareness of bullying behavior in medicine.

Our exploratory analyses examined associations between self-valuation and perceived risk of consequences of reporting bullying behavior. Self-valuation may be conceptualized as one type of self-efficacy, because it encapsulates one's tendency to engage in self-compassion and self-advocacy. Those who had higher self-valuation also had a more positive attitudes toward reporting bullying behavior. Further research could examine the relationship between self-valuation and attitudes or behaviors regarding reporting negative acts. That research might justify self-compassion as another personal factor that could be enhanced among those working in medical education and might shift attitudes toward negative acts. Notably, research has shown that enhancing self-compassion through certain mindfulness-based training exercises is possible.[38]

While our results of women reporting *greater* fears of retaliation if they reported bullying compared to men and those who identified as URiM reporting *less* fear of retaliation might seem initially surprising, some scholars have argued that sexism and gender prejudice can manifest in more subtle ways, and feminist politics have become more diffuse and less effective.[39] Consistent with these findings, some research in medical education has suggested that bystanders might be more likely to intervene if the offense is related to race or ethnicity.[28] Given that sexism may be seen as more socially permissible, one might reasonably consider that women might be aware that their reports may be dismissed and/or they may be retaliated against, while those who identify as URiM may have a perception of greater protection.

Limitations

This study had numerous limitations, including response rate and methodology. This survey was administered online, which can result in lower response rates and voluntary response bias. Response rate was comparable to other online surveys, while still relatively low.[40,41] Because this study was part of a larger study, a specific definition of bullying was not provided to participants. This omission may have introduced additional subjectivity related to what the respondents perceived as bullying. Further, due to the survey methods, we were unable to access department records, thus not allowing for an objective count of documented issues. Although beyond the scope of this study, examining discrepancies between actual reports and witnessed reports of bullying may be useful, due to likely underreporting bias that occurs during these instances.

This survey was correlational, and therefore we were unable to draw conclusions regarding the causality of these variables. Further research examining the role of normative interventions may be helpful to examine causal relationships and determine whether changing behaviors related to bullying in medical education is possible.

CONCLUSIONS

This study expanded on previous findings indicating that faculty and staff working in medical education have inaccurate peer perceptions of attitudes and behaviors related to reporting bullying behavior. Further, it provided additional support for studying the use of social norms interventions as a strategy to modify maladaptive perspectives and behaviors in this setting. Given the high rates of negative acts that occur within medicine and medical education, as well as their subsequent consequences, further research is needed to explore strategies to shift these maladaptive dynamics.

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