

# Workplace Bullying in Pathology and Laboratory Medicine

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## ABSTRACT

**Objectives:** The specific aims of the study are to explore the prevalence of workplace bullying and to understand the impact of bullying on individual wellness in order to facilitate the development of future organizational solutions to mitigate workplace incivility.

**Methods:** Cross-sectional data were collected via a web-based survey to gather exploratory demographic information and to assess the relationships between intensity of the exposure to the negative acts with laboratory productivity. Associations between laboratories offering resources to employees and their impacts on productivity and professional job fulfillment were also explored.

**Results:** Results of the survey showed that over two-thirds of laboratorians (68.56%) were classified as victims of workplace bullying, and the perpetrator is most likely a peer of the victim (55.3%). The study revealed the intensity of workplace incivility was positively correlated with the number of sick days taken by the laboratory practitioner ( $F(2, 217) = 24.245, P < .001$ ). Facilities with a supportive work environment were also associated with a reduction in the number of sick mental days taken ( $P < .001$ ), a proxy for improved work and health outcomes.

**Conclusions:** The results of this study shed light on the prevalence of incivility at the workplace and offer evidence on the importance of providing a supportive work environment toward reducing workplace bullying.

## INTRODUCTION

The word bullying often invokes images of elementary or middle school playgrounds. Research has shown, however, that around 30% of US employees have been bullied in the workplace, with even higher numbers for remote workers—namely, over 43%.<sup>1</sup> Bullying is defined as any act or situation in which someone is subjected to recurrent, systematic, serious negative or hostile, and long-lasting acts that are oppressing and abusive toward another person.<sup>2,3</sup> Bullying consists of a wide range of behaviors, including belittling, humiliating, personal attacks; verbal criticism; and exclusion.<sup>3</sup> Anyone can be the target of bullying, regardless of rank in the organization, socioeconomic background, or demographics, including age, sex, ethnicity, and levels of ability.<sup>3</sup>

According to a 2021 survey conducted by the Workplace Bullying Institute, 30% of workers have been bullied and 19% have witnessed workplace bullying.<sup>1</sup> Remote workers have experienced even higher levels of bullying—namely, 43.3%.<sup>1</sup> Remote bullying has occurred mainly through virtual meetings (namely, 50%), and 9% has occurred over email.<sup>1</sup> In fact, in contemporary working life, bullying is seen as one of the most detrimental stressors.<sup>4</sup>

## KEY POINTS

- The study addresses whether the intensity of the exposure to workplace bullying affects laboratorians' workplace productivity and professional job fulfillment.
- For managers, investment in a supportive work environment can positively influence workforce productivity.
- Negative workplace behavior in the clinical laboratory is more extensive and concerning than reported in other professions and should be addressed timely to maintain a healthy and productive workforce.

## KEY WORDS

Laboratory workforce; Pathology; Laboratory professionals; Job fulfillment; Cytology; Management/administration; Workplace bullying; Work environment

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The consequences of bullying can be severe, on both an individual and an organizational level. Organizationally, bullying can have negative impacts such as higher turnover, decreases in performance and productivity, and more mistakes and medical errors.<sup>3,5</sup> For individuals, bullying can cause mental distress, anxiety, depression, musculoskeletal problems, posttraumatic stress disorder, and chronic headaches and pain.<sup>2,6</sup> Furthermore, bullying can cause absenteeism, socioeconomic consequences, and work-related suicide.<sup>2,6</sup>

One study showed that even witnesses of bullying can suffer consequences.<sup>6</sup> This indicates that workplace bullying is an issue for the entire organization, not merely the individual targeted. Specific consequences that witnesses of bullying can suffer include an increase in mental stress, sleeping issues, and health issues such as headaches and fatigue.<sup>6</sup>

There has been a lack of studies on the impact of workplace bullying intervention, both on supporting victims of bullying as well as restoring organizational culture and rehabilitating workplace bullies.<sup>4</sup> One study indicated that antibullying tactics had a positive impact but less on the prevention side and more on increasing knowledge and awareness.<sup>7</sup>

Some challenges to mitigate bullying in the workplace are that employees might be reluctant or hesitant to share that they are bullied for fear of embarrassment or even retribution.<sup>2</sup> Additionally, many of the actions taken by leadership facilitate bullying.<sup>1</sup> Such actions include encouraging, defending, rationalizing, denying, and discounting the bullying.<sup>1</sup>

In health care, one study on bullying in nurses showed that bullying can negatively affect patient care.<sup>5</sup> Specifically, 94% of nurse respondents surveyed believed it negatively affects patient outcomes.<sup>5</sup> To date, there has been no research, to our knowledge, conducted on bullying in pathology and laboratory medicine. Since laboratory science is crucial for high-quality patient care, increased laboratory errors caused by potential bullying can have devastating impacts on patient care.<sup>8,9</sup> Therefore, it is important to examine the extent to which workplace bullying is affecting laboratory medicine and to recommend ways to minimize its negative impacts to ensure quality patient care.

The target population for this article is the laboratory workforce, which includes pathologists, doctoral-level clinical scientists, technologists, scientists, technicians, and support staff. Collectively, the work and laboratory results generated by this cohort, the laboratory professionals (LPs), are responsible for up to 70% of all health care decisions affecting patient diagnosis or treatment involving a pathology investigation.<sup>8</sup> The educational and credential requirements for the nonphysician workforce are diverse, ranging from on-the-job training to professional medical degrees and everything in between. The professionals each have their own areas of expertise such as cytology, histology, cytogenetics, specimen processing, or grossing. Others may have focus in more clinical aspects such as microbiology, chemistry, toxicology, blood banking, hematology, coagulation, or immunology.<sup>10</sup> The target population also includes physicians who specialize in the areas of pathology and its subspecialties in accordance with the American Medical Association's Graduate Medical Education Physician Masterfile.

Bullying is clearly an important topic to address within organizations. This study focuses on the prevalence of bullying in laboratory medicine, with the goal to provide support and solutions to both organizations and individuals to mitigate bullying in the workplace. This study had four primary areas of research questions: (1) to examine workplace bullying in laboratory medicine, (2) to explore the types of bullying, (3) to understand the impact of bullying on individual wellness and productivity, and (4) to study specific organizational solutions to mitigate bullying.

There were three main aims guiding this research. The first, exploratory in nature, was to understand the prevalence of workplace bullying in laboratory medicine. The second was to understand the impact of exposure to bullying on the overall wellness and feelings of satisfaction and productivity in individuals working in clinical laboratories. Finally, the study investigated the role of laboratories in workplace bullying. The overall purpose of this research was to bring attention to this important topic and to provide the foundation for organizations to create their own specific antibullying educational content to mitigate negative acts in the laboratory workplace.

## MATERIALS AND METHODS

A survey focusing on exploring the issue of workforce bullying was constructed, targeting the LP community. The study was reviewed and approved by the institutional review board of Rutgers University (IRB No. Pro2021002231). The survey invitations were distributed to the clinical laboratory community through emails obtained from professional organizations and alumni networks, as well as by posting on the professional organizations' forum and listservs. The participants were encouraged to forward the invitation emails containing the survey link to other laboratory professionals, a commonly used survey technique, sometimes referred to as "snowball sampling," to maximize survey participation.<sup>10</sup> The survey was available from May 9, 2022, through May 30, 2022, for a period of 3 weeks. To maximize participation, laboratorians who took the survey were given the opportunity to participate in a future online education course on bullying and were eligible for a future drawing for a \$10 Amazon gift card, courtesy of the American Society for Clinical Pathology (ASCP).

The cross-sectional survey consisted of three parts and was developed based on existing literature review on workplace bullying and the three research questions of interest. The first section was demographic data, including country, sex, age, educational level, ethnicity, and disability. Individual laboratorians were asked about their work characteristics, such as geographical area (where they currently work), laboratory setting, and specialty. Additional laboratorian-specific demographic information, such as roles in the laboratory, years worked in the current position, and industry, was also noted. The question on the respondent's specific role within the laboratory (laboratory director or above, laboratory manager, laboratory supervisor, lead technologist, bench technologist, technician, education coordinator, staff pathologist, pathology resident or fellow) ensured that the surveys were completed by the intended

target population and not by someone from outside of the clinical laboratory community.

The second section of the survey assessed prevalence of workplace bullying via the validated Revised Negative Acts Questionnaire (NAQ-R).<sup>11</sup> The NAQ-R is a 22-question instrument that evaluates the laboratorian's bullying status through assessing three aspects of bullying: work-related threats (NAQ-R items 1-7), person-related threats (NAQ-R items 8-19), and physically intimidating threats (NAQ-R items 20-22) from others at work. Participants reflected how frequently they have experienced each of the 22 negative acts or behaviors in the past 12 months by indicating never, occasionally, monthly, weekly, or daily. The scores were then tabulated, with 1 point given to "never" and 5 points to "daily." The laboratory practitioners with scores above 45 can be considered victims of workplace bullying, and those with scores below 33 are not bullied. Laboratorians with a score between 33 and 45 may be considered as being occasionally bullied.<sup>11-13</sup> The inclusion criterion is being part of the clinical laboratory industry. All the survey participants who failed to complete the second part (NAQ-R) or at least 50% of the survey were removed from the study sample (exclusion criterion). Cronbach's  $\alpha$  in the sample was 0.920.

The third and concluding section of the survey was the supplemental information section that ascertained details from laboratorians on a wide range of topics, from the number of sick days someone had taken in the past 6 months to whether bullying is talked about openly at the institution and many other organizational environment-related inquiries. The first question in this section was about how many times the laboratorians have called out sick or taken a mental health day in the past 6-month period. This was our variable of interest and was used as a proxy for productivity, because if an employee is not physically present there will be no one at the laboratory to prepare and perform tests that the clinicians ordered for their patients to detect diseases or abnormalities.<sup>14,15</sup> Previous workplace bullying surveys have piloted the use of asking the employees directly the number of days they have stayed home for specific health reasons over a period of time, and we adopted that process where the respondent can click on a number in our electronic web-based survey between 0 and 10+.<sup>13</sup>

Wellness-related items, such as job fulfillment, physical wellness, and mental and emotional well-being, were also asked, where the respondent indicated on a Likert scale their level of job fulfillment, physical wellness, and emotional wellness. For the variable job fulfillment specifically, individuals were asked to rate their current career fulfillment: "no fulfillment" (1), less than fulfilling (2), adequate (3), reasonably well-fulfilling (4), or very fulfilling (5). A single-item Likert scale-type question asking the respondent to quantify their own internal perceptions, such as wellness and fulfillment, has been piloted and reported previously in medical literature.<sup>13</sup> This portion also included questions on people who witnessed or experienced bullying, asking who the perpetrators were and their relative position in the laboratory hierarchy. The participants were given the flexibility to answer the questions on bullying in this segment based on their own perceptions of what the term meant. To find out who the perpetrators were, a question

asked whether the respondents have ever bullied someone at the workplace and what the reasons were. The respondents were given a list of 16 options to choose from where they could select all that were applicable, as well as providing answers in their own words if reasons were not included in the list of checkboxes. Last, this portion of the survey also recorded the workplace resources and culture-related items, such as whether the laboratory provided resources to prevent bullying, whether there were reporting structures in place to communicate the negative acts to management, and whether employees felt comfortable talking about issues such as bullying openly at the workplace.

Descriptive analyses were used in answering the research questions regarding prevalence of workplace bullying, the most common types of laboratory bullying, and a profile of the perpetrator and the stated reasons given for performing the negative acts. After checking for distribution of the outcome variables, a one-way analysis of variance was used to explore whether people who experienced more intense bullying take more sick days and are less fulfilled professionally. Similarly, an independent samples *t* test was employed to investigate whether laboratories offering resources to its employees have a more productive and professionally fulfilled workforce. Only those individuals who provided a definitive response by clicking on the "yes" or "no" to laboratories providing resources to prevent bullying were included in this analysis. Statistical analyses were performed using the IBM SPSS Statistics for Windows, version 28.

## RESULTS

There were 263 returned responses, but 34 were excluded for not meeting our inclusion criteria of completing the NAQ-R portion and completing at least 50% of the questionnaire. A total of 57% of the female and 40% of the male members of the laboratory community completed the survey **TABLE 1**. The respondents were ethnically diverse, with a significant minority representation (64%) and a highly educated workforce with at least a bachelor's degree (98%). The laboratorians **TABLE 2**, **TABLE 3** who responded to the survey primarily worked in a teaching or academic hospital (41%), located in a densely populated urban area (66%), and have worked at the current position for either less than 5 years or more than 21 years (75%). Those who said they had been at their current job in those middle years (6-20) accounted for only 25% of the total surveyed. Most of the respondents who participated in the survey (96%) worked in the United States and Canada.

### Prevalence of Workplace Bullying (NAQ-R)

Of 229 respondents, the NAQ-R score ranged from 22 to 102, with a mean (SD) of 50.2 (14.9) among the clinical laboratory employees as a whole. Many laboratory practitioners reported, in the past 12-month period, exposure to bullying, and over two-thirds of the sample (68.56%) were classified as victims of workplace bullying, with NAQ-R scores above the 45-point threshold **FIGURE 1**.<sup>12</sup>

Among laboratorians, work-related bullying was the most common type, followed by person-related threats, and physically intimidating acts were least common. Of the laboratorians who

**TABLE 1** Demographics and Sample Characteristics

| Characteristic                 | No. (%)  |
|--------------------------------|----------|
| Sex                            |          |
| Female                         | 131 (57) |
| Male                           | 92 (40)  |
| Others                         | 6 (3)    |
| Age group, y <sup>a</sup>      |          |
| 21-30                          | 131 (57) |
| 31-40                          | 36 (16)  |
| 41-50                          | 25 (11)  |
| 51-60                          | 20 (9)   |
| 61+                            | 16 (7)   |
| Education level, y             |          |
| High school/associate          | 4 (2)    |
| Bachelor's                     | 124 (54) |
| Master's                       | 84 (37)  |
| Doctorate                      | 16 (7)   |
| Other                          | 1 (1)    |
| Ethnicity                      |          |
| White                          | 82 (36)  |
| Black or African American      | 123 (54) |
| Asian or Pacific Islander      | 16 (7)   |
| Other                          | 8 (4)    |
| Disability                     |          |
| Yes, mental, physical, or both | 12 (5)   |
| No, none                       | 192 (84) |
| Not sure/don't know            | 25 (11)  |
| Country/region currently work  |          |
| United States and Canada       | 220 (96) |
| Europe                         | 3 (1)    |
| Other <sup>b</sup>             | 6 (1)    |

<sup>a</sup>Does not add up to 229 due to missing data.

<sup>b</sup>Other includes Central and South America (2; 0.09%), Australia (1; 0.04%), and Asia (1; 0.04%).

have self-indicated that they were currently experiencing workplace incivility, roughly half (51.9%) had been subjected to bullying for between 3 and 6 months, the most common time period category. The top three negative acts experienced by the pathology workforce were having your opinions ignored (88%), being exposed to an unmanageable workload (82%), and being personally ignored or excluded (79%) **TABLE 4**.

### Characteristics of the Bully

The medical laboratorians who reported witnessing or experiencing workplace bullying were asked to describe the profile of the person committing the negative acts **FIGURE 2**. The perpetrator is most likely a peer of the victim (55.3%) or a direct supervisor/manager (22.4%). The top five frequently cited reasons for bullying others were racism (n = 36), toxic work environment (n = 28), discrimination (n = 26), microaggression (n = 26), and COVID-19 (n = 25) **TABLE 5**.

**TABLE 2** Total Number of Responses by Work Characteristics

| Characteristic  | No. (%)  |
|---|----------|
| Geographical area <sup>a</sup>                                |          |
| Densely populated urban area (50,000+ people)                 | 152 (66) |
| Urban area or urban cluster (between 2,500 and 5,000 people)  | 46 (20)  |
| Rural (outside of urban area)                                 | 11 (5)   |
| Other   | 20 (9)   |
| Laboratory setting <sup>b</sup>                               |          |
| Community hospital  | 49 (21)  |
| Academic or teaching hospital                                 | 94 (41)  |
| Reference laboratory  | 72 (31)  |
| Veterans Administration, public health or government facility | 7 (3)    |
| Primary laboratory department                                 |          |
| Microbiology  | 33 (14)  |
| Cytopathology or cytology                                     | 82 (36)  |
| Molecular/cytogenetics/flow/immunology                        | 51 (22)  |
| Hematology coagulation  | 23 (10)  |
| Histology   | 4 (2)    |
| Blood banking   | 7 (3)    |
| Chemistry/toxicology  | 7 (3)    |
| Other   | 22 (10)  |

<sup>a</sup>Self-reported.

<sup>b</sup>Does not add up to 229 due to missing data.

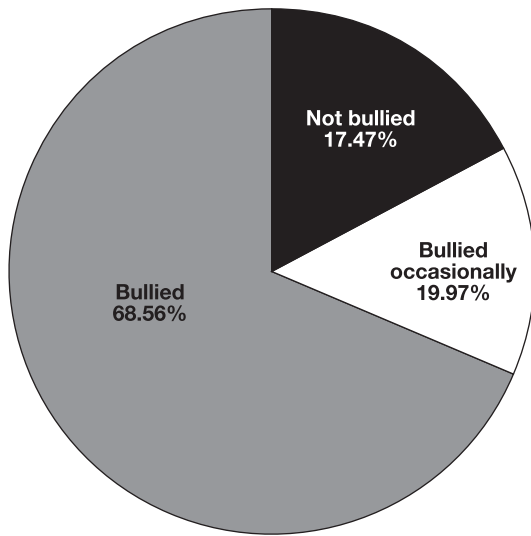
**TABLE 3** Laboratorian's Employment Characteristics

| Characteristic                                  | No. (%)  |
|---|----------|
| Role in clinical laboratory                     |          |
| Upper management (laboratory director or above) | 27 (12)  |
| Laboratory manager                              | 88 (38)  |
| Laboratory supervisor                           | 16 (7)   |
| Senior or lead technologist                     | 16 (7)   |
| Bench technologist or technician                | 59 (26)  |
| Education coordinator/instructor                | 7 (3)    |
| Practicing pathologist, resident or fellow      | 10 (4)   |
| Other   | 6 (3)    |
| Years worked in laboratory profession           |          |
| 1-5   | 157 (69) |
| 6-10  | 19 (8)   |
| 11-15   | 22 (10)  |
| 16-20   | 8 (4)    |
| 21+   | 23 (10)  |
| Years worked at current position                |          |
| 1-5   | 128 (56) |
| 6-10  | 28 (12)  |
| 11-15   | 18 (8)   |
| 16-20   | 12 (5)   |
| 21+   | 43 (19)  |

### Impacts of Exposure to Bullying on Absenteeism and Professional Fulfillment

The clinical laboratory practitioners' self-reported job fulfillment and number of sick days in the past 6 months were analyzed for





**FIGURE 1** Prevalence of negative acts. Group categories (not bullied, bullied occasionally, and bullied) were determined using the results from the Revised Negative Acts Questionnaire (NAQ-R) with the following cutoffs: “not bullied” (<33), “occasionally bullied” (33-45), and “bullied” (>45).

the not bullied, bullied occasionally, and bullied cohorts **TABLE 6**. The number of sick days reported was significant between the three groups ( $F(2, 217) = 24.245, P < .001$ ), with the number of call-out days the lowest for the “not bullied” cohort and highest for the “bullied” group. Similarly, self-reported professional job fulfillment showed a significant upward trajectory between the groups ( $F(2, 218) = 21.300, P < .001$ ), with job fulfillment at the lowest for the bullied group and highest for the nonbullied workforce.

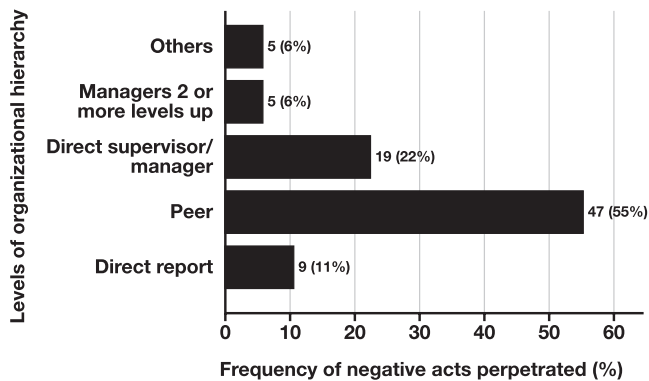
**Exposure to Supportive Work Environment and Productivity and Professional Fulfillment**

To investigate whether a supportive work environment is associated with improved work and health outcomes, an independent samples t test was performed assessing whether there are productivity differences in the form of number of days a laboratorian calls out sick at the facilities that have a supportive work environment (those that provided resources to prevent bullying) compared to those that do not. The differences in the number of sick/mental health days taken between the two groups were both significant ( $P < .001$ ) and large in effective size (Cohen’s  $d = 0.81$ ), showing that those with a supportive work environment take significantly fewer sick days compared to those without **TABLE 7**. A nonsignificant similar trend

**TABLE 4** Frequency of Each Negative Behavior Experienced (NAQ-R) in Past 12 Months

| Threat   | No, No. (%) | Yes, to Some Degree, <sup>a</sup> No. (%) | Yes, Weekly or Daily, <sup>b</sup> No. (%) |
|--|-------------|---|--|
| <b>Work-related threats</b>  |             |   |  |
| 1. Someone withholding information, which affects your performance   | 48 (21)     | 181 (79)                                  | 38 (17)                                    |
| 2. Being ordered to do work below your level of competence   | 57 (25)     | 172 (75)                                  | 46 (20)                                    |
| 3. Having your opinions ignored  | 27 (12)     | 202 (88)                                  | 53 (23)                                    |
| 4. Being given tasks with unreasonable deadlines   | 62 (27)     | 167 (73)                                  | 43 (19)                                    |
| 5. Excessive monitoring of your work   | 68 (30)     | 161 (70)                                  | 45 (20)                                    |
| 6. Pressure not to claim something to which by right you are entitled (eg, sick leave, holiday entitlement, travel expenses) | 70 (31)     | 159 (69)                                  | 41 (18)                                    |
| 7. Being exposed to an unmanageable workload   | 42 (18)     | 187 (82)                                  | 60 (26)                                    |
| <b>Person-related threats</b>  |             |   |  |
| 8. Being humiliated or ridiculed in connection with your work  | 75 (33)     | 154 (67)                                  | 34 (15)                                    |
| 9. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks                              | 79 (34)     | 150 (66)                                  | 32 (14)                                    |
| 10. Spreading of gossip and rumors about you   | 65 (28)     | 164 (72)                                  | 35 (15)                                    |
| 11. Being ignored or excluded  | 47 (21)     | 182 (79)                                  | 57 (25)                                    |
| 12. Having insulting or offensive remarks made about your person, attitudes, or your private life                            | 65 (28)     | 164 (72)                                  | 39 (17)                                    |
| 13. Hints or signals from others that you should quit your job   | 92 (40)     | 137 (60)                                  | 36 (16)                                    |
| 14. Repeated reminders of your errors or mistakes  | 71 (31)     | 158 (69)                                  | 35 (15)                                    |
| 15. Being ignored or facing a hostile reaction when you approach   | 56 (24)     | 173 (76)                                  | 37 (16)                                    |
| 16. Persistent criticism of your errors or mistakes  | 70 (31)     | 159 (69)                                  | 31 (14)                                    |
| 17. Practical jokes carried out by people you don’t get along with   | 100 (44)    | 129 (56)                                  | 26 (11)                                    |
| 18. Having allegations made against you  | 76 (33)     | 153 (67)                                  | 28 (12)                                    |
| 19. Being the subject of excessive teasing and sarcasm   | 89 (39)     | 140 (61)                                  | 33 (14)                                    |
| <b>Physically intimidating threats</b>   |             |   |  |
| 20. Being shouted at or being the target of spontaneous anger  | 73 (32)     | 156 (68)                                  | 35 (15)                                    |
| 21. Intimidating behaviors such as finger-pointing, invasion of personal space, shoving, blocking your way                   | 93 (41)     | 136 (59)                                  | 22 (10)                                    |
| 22. Threats of violence or physical abuse or actual abuse  | 105 (46)    | 124 (54)                                  | 29 (13)                                    |

<sup>a</sup>Includes all categories of yes (now and then, monthly, weekly, and daily).  
<sup>b</sup>Includes categories of yes, weekly and yes, daily only.



**FIGURE 2** Perpetrator of negative acts by laboratory organizational hierarchy. Participants who self-reported having experienced, heard, or seen bullying in the workplace were asked, "Who was the main perpetrator?" with a list of choices that includes "direct report," "peer," "direct supervisor/manager," "managers 2 or more levels up," and others.

**TABLE 5** Reasons Given for Bullying Others

| Reason No. | Reason Given for Bullying Others                               | No. (%) |
|------------|--|---------|
| 1          | I never bully others   | 67 (20) |
| 2          | Racism   | 36 (11) |
| 3          | Toxic work environment   | 28 (8)  |
| 4          | Discrimination   | 26 (8)  |
| 5          | Microaggressions   | 26 (8)  |
| 6          | COVID-19   | 25 (8)  |
| 7          | Disability   | 24 (7)  |
| 8          | Work-related stressors (difficulties that are part of the job) | 23 (7)  |
| 9          | Poor management culture  | 15 (5)  |
| 10         | Respect, support, and being valued                             | 15 (5)  |
| 11         | Competition among coworkers                                    | 14 (4)  |
| 12         | Grief and/or trauma  | 11 (3)  |
| 13         | Religion   | 8 (2)   |
| 14         | No organizational support resources to prevent bullying        | 8 (2)   |
| 15         | Sexism   | 6 (2)   |
| 16         | Others   | 1 (0)   |

**TABLE 6** Sick Days Taken and Job Fulfillment Experienced by Employees With Various Bullying Status

| Group <sup>a</sup>   | Sick Days, <sup>b</sup> Mean (SD) | Job Fulfillment, <sup>c</sup> Mean (SD) |
|----------------------|-----------------------------------|---|
| Not bullied          | 1.86 (1.13)                       | 4.05 (0.88)                             |
| Bullied occasionally | 2.64 (1.52)                       | 3.11 (0.88)                             |
| Bullied              | 3.46 (1.28)                       | 2.96 (0.94)                             |
| ANOVA                | $F = 24.25, P < .001$             | $F = 21.30, P < .001$                   |

ANOVA, analysis of variance.

<sup>a</sup>Group categories (not bullied, bullied occasionally, and bullied) were determined using the results from the Revised Negative Acts Questionnaire.

<sup>b</sup>Number who called in sick or had taken mental health days in the past 6 months.

<sup>c</sup>Job fulfillment from a scale of 1 to 5, where 1 is no fulfillment and 5 is very fulfilling.

was also observed where individuals who worked in supportive work environment trended higher in their sense of job fulfillment than those in a nonsupportive work environment.

**TABLE 7** Sick Days Taken and Job Fulfillment Experienced by Employees in a Supportive and Nonsupportive Work Environment for Bullying

| Group   | Sick Days, <sup>a</sup> Mean (SD) | Job Fulfillment, <sup>b</sup> Mean (SD) |
|---|-----------------------------------|---|
| Supportive work environment (prevent bullying)                        | 2.39 (1.50)                       | 3.13 (1.28)                             |
| Nonsupportive work environment (no resources for bullying prevention) | 3.46 (1.29)                       | 3.03 (0.87)                             |
| P value   | <.001 <sup>c</sup>                | .671                                    |

<sup>a</sup>Number who called in sick or had taken mental health days in the past 6 months.

<sup>b</sup>Job fulfillment from a scale of 1 to 5, where 1 is no fulfillment and 5 is very fulfilling.

<sup>c</sup>Statistically significant.

When asked whether workplace bullying is discussed at the workplace and if their laboratories provided reporting structure, close to 70% indicated that there is no reporting structure, and 80% of the employees say their workplace does not openly discuss the issue.

## DISCUSSION

### Exposure to Bullying

Negative workplace behavior in the clinical laboratory workspace revealed in the current study is more extensive and concerning than reported in literature from other professions. Per the NAQ-R survey results, more than 68% of pathology employees were victims of workplace bullying, compared to 45% of nurse educators in the United States and 9% of primary care nurses in Portugal.<sup>16,17</sup> In fact, when comparing specifically the workforce's frequency of weekly or daily negative acts against other health care professionals working in US hospitals from the reference literature, the medical laboratory's data were higher in 19 of the 22 negative act areas **TABLE 4**.<sup>18</sup> The workplace bullying mean (SD) score in pathology and clinical laboratory as a whole, when compared to medical surgeons in the United States, a subspecialty in medicine known for its workplace incivility, is still almost 10 points higher, at 50.2 (14.9) vs 40.3 (17.8) for surgical residents and 34.8 (14.7) for faculty surgeons, according to data obtained from a 2020 national workplace assessment publication by the American Medical Association.<sup>19</sup>

While the types of negative workplace behavior the study participants were most commonly exposed to (opinions ignored, unmanageable workload, and being ignored or excluded) were consistent with the experiences of other health care professionals, the frequency of exposure for the medical laboratory practitioners was significantly higher than that for other professionals **TABLE 4**.<sup>15-17,19</sup> MacKusick and Minick<sup>20</sup> recruited and interviewed nurses (RN) who had left their clinical positions to understand work-related reasons that precipitated the decision. They found that unfriendly workplace was an overwhelming theme gathered from the nurses' responses for their leaving the workplace. Similarly, the high prevalence of workplace bullying and the elevated frequency of specific negative act categories experienced by laboratorians observed in our study, if not addressed in a timely manner, can potentially affect the recruitment of talent into the profession and will not be good for workforce retention. While research into effective workplace

bullying prevention at the workplace has remained sparse, an important key ingredient to a successful intervention appears to be commitments from management on zero tolerance.<sup>21</sup> One Australian study found the implementation of an antibullying intervention in the workplace, in the form of managing awareness of the issue and support from management, contributed to an overall increase in staff satisfaction.<sup>22</sup> This is consistent with our study finding of the inverse relationship between one's level of bullying and job fulfillment. Therefore, if we can lower the overall level of incivility through deliberate management policies, it follows that the employee's job satisfaction will also improve.

### Perpetrator and Drivers of Bullying

It is of interest that the people who committed negative acts, according to our study results, were predominately peers, followed by direct supervisors. Moreover, laboratorians cited a suboptimal work environment and discriminatory beliefs as reasons for their negative acts. The traditional paradigm on the identity of the perpetrators of bullying, as guided by the study on disruptive behaviors from The Joint Commission,<sup>18</sup> was that there is a hierarchical element to bullying, with people who are higher in the organizational structures, such as physicians or senior managers, more likely to be the perpetrators.<sup>23</sup> Several more recent studies, from the United States and Australia, have challenged the traditional perception that negative workplace behavior is entirely hierarchical and is consistent with the trend that is seen from the results of our pathology workforce study.<sup>17,24</sup>

The specific finding regarding the perpetrators informs laboratory management of the need to create a culture of inclusion and a supportive work environment because the act of workplace bullying will spread sideways (peer to peer) as well as vertically (supervisor to direct reports), if not properly addressed, leading to a continued increase in both the incidence and the prevalence of incivility at the workplace.<sup>7</sup>

### Exposure to Bullying and Work Productivity

The trends observed in the medical laboratory workforce study—namely, the intensity of bullying is positively associated with laboratorians calling out sick and negatively correlated with self-reported job fulfillment—are consistent with studies on health care employees in general and have important implications. The first implication has to do with employee health. There are studies showing that exposure to chronic stressful events, which workplace bullying is, can suppress the body's immune function and increase nonspecific inflammation, making an employee physiologically more susceptible to sickness.<sup>25,26</sup> In practice, researchers in Finland and Taiwan have revealed that victims of negative acts are indeed more likely to be sick and depressed when compared to their nonbullied counterparts.<sup>27,28</sup> The second implication is employee retention and the workforce altogether. For health care workers at the four regional hospitals in Australia, more than half of the employees who were subjected to incivility had seriously considered leaving their workplace.<sup>24</sup> The cost of staying at a place when one is subject to workplace bullying, according to a Finnish study, is a 51% increase in succumbing to sickness absence.<sup>29</sup> A more recent study in 2018 concluded that those public

health employees in Denmark with exposure to bullying are more likely to end up in long-term sickness absence, defined as 30 or more days, compared to those that were not exposed to bullying.<sup>27</sup>

The issue of exposure to bullying appeared universal and has serious clinical implications that require laboratory thought leaders and administrations to be proactively involved to mitigate its spread. The cost of inaction includes a preventable exodus of talent from clinical laboratories in an already overstretched workforce and a longer laboratory turnaround time for many important tests that clinicians rely on for care of their patients.

### Organizational Solution to Mitigate Bullying: Supportive Work Environment

The cost of inaction to the issue of workplace bullying is enormous, including an exodus of talent, difficulty in recruitment, and compromised laboratory results.<sup>30,31</sup> Each laboratory clearly needs to have a cohesive strategy in place to not only allocate resources to prevent the negative acts from occurring in the first place but also offer support to help the target employees recover and to assist bullies to change.<sup>32</sup>

In the study, we have demonstrated that laboratories with supportive work environments to prevent bullying tend to have lower call-out sick mental days. Our finding is consistent with the medical literature that employer support is an effective way of protecting people against incivility and ensuring a healthier work environment.<sup>33</sup> It is not surprising, then, given the high number of workplaces in our survey lacking a reporting structure for bullying, that the pathology community has a higher prevalence and NAQ-R score than other health care professionals. It is, therefore, important to inform and educate the clinical workforce of this critical issue so that there will be more employers that provide laboratory resources for the prevention, discussion, and reporting of workplace incivility incidents.

### Limitations

While this study was compiled using a psychometrically sound instrument, it was affected by several limitations. First, it relied on a self-reported questionnaire, which may potentially introduce recall and selection biases. The NAQ-R instrument asked the clinical laboratorians to recall negative acts experienced in the past 12 months, instead of the conventional 6-month period, which may be subject to greater distortion. While the norm for recall is 6 months, there are published studies in health care on workplace bullying that have used the 12-month interval.<sup>32,33</sup> There is also an overrepresentation of males and blacks or African Americans in the survey compared to the US laboratory workforce. The reason for the overrepresentation of minorities may be due to the methodologic limitation associated with snowball sampling. Moreover, those who have experienced bullying are also more likely to respond to the survey, leading to a potential overestimation of the prevalence of bullying in the study. It should also be noted that the perpetrator of bullying may be embarrassed to admit committing the negative acts, and those who had never been bullied may not have felt they could contribute to new knowledge of this research. Next, conclusions cannot be drawn regarding causal inferences with cross-sectional self-reporting data. Finally, there may be limitations to their generalizability to all

subspecialties within laboratory medicine, as some sections, such as histology and blood banking, are underrepresented in the sample. Moreover, a substantial portion of the work in the literature on health care and hospital workplace bullying came from countries within the European Union because of the ease of obtaining health information for research studies, some of which is cited here. Their results may not be generalizable to the United States because of the differences in work culture and health care system structures.

## CONCLUSIONS

The findings from this study provide evidence that the issue of workplace bullying in pathology is an important growing matter that requires our collective attention. The study sheds light on the prevalence of incivility at the workplace and informs the laboratory community who the perpetrators are and why people bully others. The research also illuminates the connections between the degree of bullying and the reduction in productivity as measured by work absenteeism and job satisfaction. It also offers hope that a positive work environment with an appropriate employer support structure to prevent workplace bullying may be an effective approach to reducing the future incidence and prevalence of workplace incivility. Furthermore, this study emphasizes the need for the LP communities to provide resources and educational seminars that can help the clinical workforce better understand, manage, and prevent bullying at the laboratories.

To improve employee satisfaction and to reduce the widening of the supply-to-demand gap trend requires the laboratory management to address the issue of workplace bullying today, as the issue appears universal and has serious clinical implications that require laboratory thought leaders and administrations to be proactively involved to mitigate its spread.<sup>34-36</sup> The challenges associated with addressing workplace bullying are ones of prioritization and commitment to a zero-tolerance policy. Since the perpetrators of these negative acts can frequently be high performers and likely to be considered valuable employees that management may wish to protect when a complaint is lodged against them, there needs to be genuine commitment from management in order for this to work.<sup>21</sup> Moreover, it is highly likely, according to a recent 2020 *JAMA* study on surgical physician faculty, that there is a 25% chance that reporting of a negative event will result in retaliatory actions, further creating a barrier to reporting.<sup>19</sup> Therefore, not only is there a need to educate the LP community about workplace incivility but there also needs to be an organizational buy-in and commitment from top to bottom on zero tolerance to bullying. Perhaps a clause or verbiage written in hiring contracts for new recruits will be helpful in demonstrating to employees and mid-level management the laboratory's organizational commitment and resolve in addressing the issue.

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