

# Eradicating Medical Student Mistreatment: A Longitudinal Study of One Institution's Efforts

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## Abstract

### Purpose

Since 1995, the David Geffen School of Medicine at UCLA (DGSOM) has created policies to prevent medical student mistreatment, instituted safe mechanisms for reporting mistreatment, provided resources for discussion and resolution, and educated faculty and residents. In this study, the authors examined the incidence, severity, and sources of perceived mistreatment over the 13-year period during which these measures were implemented.

### Method

From 1996 to 2008, medical students at DGSOM completed an anonymous survey after their third-year clerkships and reported how often they

experienced physical, verbal, sexual harassment, ethnic, and power mistreatment, and who committed it. The authors analyzed these data using descriptive statistics and the students' descriptions of these incidents qualitatively, categorizing them as "mild," "moderate," or "severe." They compared the data across four periods, delineated by milestone institutional measures to eradicate mistreatment.

### Results

Of 2,151 eligible students, 1,946 (90%) completed the survey. More than half (1,166/1,946) experienced some form of mistreatment. Verbal and power mistreatment were most common, but

5% of students (104/1,930) reported physical mistreatment. The pattern of incidents categorized as "mild," "moderate," or "severe" remained across the four study periods. Students most frequently identified residents and clinical faculty as the sources of mistreatment.

### Conclusions

Despite a multipronged approach at DGSOM across a 13-year period to eradicate medical student mistreatment, it persists. Aspects of the hidden curriculum may be undermining these efforts. Thus, eliminating mistreatment requires an aggressive approach both locally at the institution level and nationally across institutions.

Mistreatment can have deleterious effects on medical students' emotional well-being and attitudes, potentially eroding the values and competencies, such as professionalism, that the medical school curriculum intends to convey. Specifically, mistreatment both affects mental health, with students exhibiting the symptoms of posttraumatic stress,<sup>1,2</sup>

and results in low career satisfaction.<sup>3</sup> Furthermore, verbal mistreatment affects students' confidence in their clinical abilities and their ability to succeed in residency.<sup>4,5</sup>

Unfortunately, more than two decades of studies have shown that the behaviors of faculty, residents, and nurses toward medical students are frequently unprofessional and abusive, particularly during clinical clerkship rotations.<sup>1-13</sup> Furthermore, data from the 2009-2011 Association of American Medical Colleges' (AAMC's) Medical School Graduation Questionnaires showed that, at the end of their fourth year, approximately one in six U.S. medical students reported that they had personally experienced mistreatment.<sup>14</sup> This problem is not limited to the United States, however; studies on medical student mistreatment in Japan,<sup>6</sup> the Netherlands,<sup>7</sup> and the United Kingdom<sup>8</sup> reported an equally high incidence of mistreatment.

The studies published in the last 20 years represent a snapshot of the prevalence of medical student mistreatment at a single institution or at multiple institutions. None of these studies, however,

monitored the incidence and severity of abuse longitudinally to evaluate the concerted efforts of one institution to eradicate abusive behavior over time.

### Addressing Medical Student Mistreatment at the David Geffen School of Medicine at UCLA

During the last 17 years, leaders at the David Geffen School of Medicine at UCLA (DGSOM) have taken a proactive approach to eradicating medical student mistreatment. In 1995, they created the Gender and Power Abuse Committee, consisting of faculty, administrators, and mental health professionals, to initiate interventions and to provide support to victims of mistreatment. The committee members meet regularly to receive updates on the prevalence of reported mistreatment at DGSOM and to learn how to assist members of the medical school community in resolving incidents of mistreatment. The committee's initial charge included creating policies to prevent mistreatment, instituting mechanisms for reporting it, providing resources for safe and informal discussion and resolution, and educating faculty, residents, students,

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and nurses. In this study, we examined whether this concerted, multipronged approach spanning more than a decade accompanied a decrease in the incidence of medical student mistreatment.

Since the Gender and Power Abuse Committee was created in 1995, our institution has initiated a number of other interventions. For the purpose of our analysis, we divided the subsequent years (1996–2008) into four periods. For each period, we examined the prevalence and severity of medical student mistreatment at DGSOM. Period 1 (1996–1998) included the years preceding the implementation of any interventions.

In 1998, the Gender and Power Abuse Committee wrote the medical school's Statement on Supporting an Abuse-Free Academic Community, which was adopted by the leadership and widely disseminated both on bookshelves and on the Internet.<sup>15</sup> In addition, the school opened an Ombuds Office for Medical Sciences, which was staffed by a designated ombudsperson trained to understand the issues specific to a medical environment. Here, medical students, residents, faculty, and staff could confidentially report and mitigate mistreatment. Period 2 (1999–2000) included the two years immediately following these initiatives.

In 2001, marking the beginning of Period 3 (2001–2005), the Gender and Power Abuse Committee established a mechanism for the formal reporting and investigation of mistreatment. They drafted the Policy for Prevention of Student Mistreatment with input from students and residents. After the Faculty Executive Committee adopted this policy, the Gender and Power Abuse Committee disseminated it to all students and posted it on the student affairs Web site.<sup>16</sup> Also during this period, they implemented a comprehensive education program targeting students, residents, and faculty.

Since 2001, third-year medical students who are about to begin their required clinical clerkships have participated in a one-hour mandatory workshop on student mistreatment. The purpose of this workshop is to educate the students about mistreatment and to give them the skills to deal with mistreatment. Faculty define the types of mistreatment, share

data to show prevalence, and discuss scenarios in small groups to prepare the students to respond to situations that they might encounter during their clerkships. For example, students are asked to strategize on how to respond in a collegial yet assertive manner when they are asked to pick up dinner for their team.

In addition, during Period 3, the Gender and Power Abuse Committee created a mandatory half-hour training session on professionalism in the work place to be held during resident orientation. The session cautions incoming residents against committing acts of mistreatment toward medical students and also provides them with resources should they be the object of mistreatment themselves. Finally, members of the committee provide sessions on student mistreatment to faculty at faculty meetings and grand rounds, as well as at grand rounds at the DGSOM-affiliated hospitals that host third-year students during their clerkships.

In 2005, the California state legislature mandated that all state-employed supervisors, including faculty and clinical staff, complete a two-hour online sexual harassment training course every two years. Period 4 (2006–2008) included the three years following this mandate. Also during this period, the faculty from the Doctoring course for third-year medical students introduced a small-group module on mistreatment, providing students the opportunity to discuss and to mitigate any mistreatment experiences that they may have encountered during their clerkships.

In our study, we reviewed medical students' mistreatment reporting patterns across these four periods, which included our multipronged effort to eradicate student mistreatment. The specific objectives of our study were to (1) assess the prevalence of mistreatment reported anonymously by medical students immediately following their third-year clerkships, (2) compare reporting patterns of male and female students, (3) determine whether institutional interventions accompanied changes in prevalence and severity of reported mistreatment, and (4) identify the purported sources of reported mistreatment.

## Method

Beginning in 1996, we surveyed all medical students at the end of their third-year clerkships. From 1996 to 2005, students voluntarily completed a paper-based, anonymous survey on the day of their clinical performance examination. In 2006, we moved the survey to CoursEval3™ (Academic Management Systems, Amherst, New York), a secure, anonymous course evaluation system already used by DGSOM. From that time on, students completed the survey online within a three-week period; participation was mandatory.

In the questionnaire, we asked students to indicate whether or not and, if so, how often, they experienced mistreatment during their clerkships in the following categories: (1) physical mistreatment (defined as “slapped, struck, pushed”), (2) verbal mistreatment (defined as “yelled or shouted at, called a derogatory name, cursed, ridiculed”), (3) sexual harassment (defined as “inappropriate physical or verbal advances, intentional neglect, sexual jokes,” and, starting in 2005, “mistreatment based on sexual orientation”), (4) ethnic mistreatment (defined as “intentional neglect, ethnic jokes, comments and expectations regarding stereotypical behavior”), and (5) power mistreatment (defined as “made to feel intimidated, dehumanized, or had a threat made about a recommendation, your grade, or your career”).

We asked students to indicate the frequency with which they experienced each category (“once,” “twice,” “on numerous occasions”) as well as to identify the sources of that mistreatment using the following choices: preclinical faculty, clinical faculty, residents, students, patients, nurses, or other (added in 2003). From 1997 through 2005, students were able to select multiple sources of mistreatment for each incident; however, starting in 2006, they were able to select only one. Finally, we asked them to describe any incidents of mistreatment, but we did not require them to do so.

Although we do not report the results here, we also asked students (1) to identify the department and institution where the mistreatment occurred, (2) to or from whom they reported the incident

or sought help, and (3) for those who indicated that they did not seek help, why they did not seek help or attempt to report the incident.

The questions regarding students' experiences with mistreatment remained the same over the course of our study period with a notable exception. In 2003 and 2004, we added a separate question asking students if, as a medical student, they had been mistreated because of their sexual orientation. Because affirmative responses were rare, starting in 2005, we included this type of mistreatment in the definition of sexual harassment. For the purposes of our analysis, we included affirmative responses from 2003 and 2004 in the sexual harassment category.

In this analysis of anonymous, archived data, we compared mistreatment patterns across our four study periods using descriptive statistics ( $\chi^2$  analysis and Fisher exact test). We used SPSS version 17.0 (IBM Corp, Armonk, New York) for these quantitative analyses.

We then qualitatively analyzed the students' descriptions of their experienced incidents of mistreatment to determine the severity of each. We combined these qualitative data from all years for each mistreatment category. We considered comments in the context of the mistreatment category under which they were originally reported; however, in three instances, we felt that comments reported under verbal mistreatment indicated a clear instance of sexual harassment, so we moved them to that category. Two of us (J.F. and M.V.) independently analyzed the comments to identify a preliminary set of subcategories. At this stage, we eliminated comments related to mistreatment by a patient or comments without sufficient information to determine source or severity. The same two of us compared our individual subcategories, agreed on a final categorization scheme, and then independently classified all comments according to the agreed-on scheme. The two of us and a third investigator (S.U.) reconvened to compare all classifications (line by line). We resolved all disagreements through consensus. Finally, we assigned a severity rating of "mild," "moderate," or "severe" to each comment, which we then agreed on. If a comment described more than one

incident, we determined its severity rating according to the most severe of the incidents described.

Through consultation with the UCLA Office of Human Research Protection Program, the study was determined to not meet the definition of human subject research per federal regulations and, therefore, not require institutional review board review.

## Results

A total of 1,946 of 2,151 eligible medical students participated in our study from 1996 to 2008. Our overall response rate was 90%, although response rates for individual years ranged from 63% in 2001 (when, due to a clerical error, only a portion of the class was invited to participate) to 100% in 2006, 2007, and 2008 when participation was mandatory. In all years, students were not required to answer every question; therefore, denominators may vary. We found a shift in demographics over the course of the study period ( $\chi^2 = 36.6$ ,  $df = 12$ ,  $P < .001$ ). Before 2000, the majority of the students in each class were male; starting in 2001, classes were on average equally divided by gender.

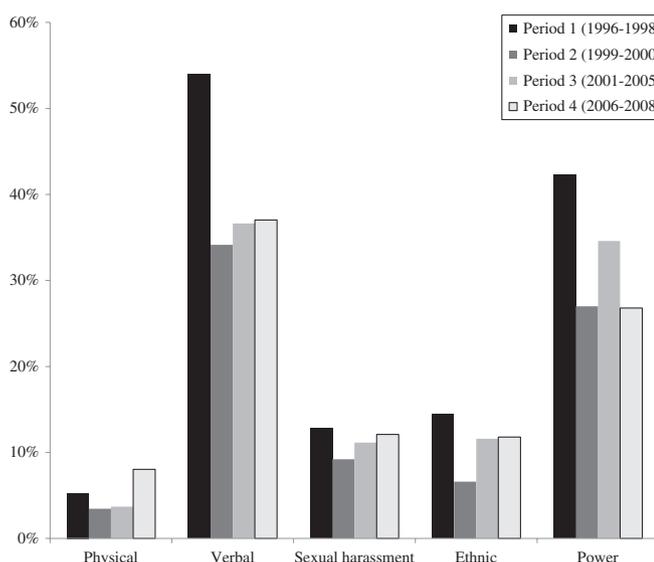
### Overall incidence of mistreatment

Incidence of mistreatment was highest in Period 1 before DGSOM adopted the Statement on Supporting an Abuse-Free Academic Community. During

this period, 317 of 422 (75%) students reported having experienced some form of mistreatment during their clerkships; this dropped significantly to an average of 57% (849 of 1,497 students) across the subsequent three periods ( $\chi^2 = 47.2$ ,  $df = 3$ ,  $P < .001$ ), between which we found no significant differences. None of the measures instituted after 1998, such as the antimistreatment education program or the mandatory sexual harassment prevention training, were accompanied by a decrease in overall incidence of mistreatment ( $\chi^2 = 0.5$ ,  $df = 2$ ,  $P = .794$ ).

### Incidence of specific categories of mistreatment

Figure 1 illustrates that the drop in overall incidence of mistreatment after the adoption of the Statement on Supporting an Abuse-Free Academic Community was largely attributable to a decline in incidence of verbal mistreatment ( $\chi^2 = 41.7$ ,  $df = 1$ ,  $P < .001$ ) and power mistreatment ( $\chi^2 = 22.4$ ,  $df = 1$ ,  $P < .001$ ). Before 1998, a majority of students (243 of 438, 55%) reported having been verbally mistreated, and 43% (190 of 443) reported power mistreatment. From 1999 to 2008, an average of 38% (572 of 1,499) of students reported they were verbally mistreated and 31% (463 of 1,503) reported power mistreatment. Although the incidence of these two forms of mistreatment decreased significantly from Period 1 to Period 4, they remained quite prevalent.



**Figure 1** Incidence of medical student mistreatment by category of mistreatment, David Geffen School of Medicine at UCLA, 1996–2008. Incidents of mistreatment by patients have been excluded.

The incidence of reported sexual harassment remained stable from 1996 to 2008. Averaged across all four study periods, 13% (260 of 1,940) of students reported being a victim of sexual harassment. The mandatory sexual harassment prevention training introduced in 2005 then had no discernible influence on the incidence of sexual harassment.

After 1998, incidence of ethnic mistreatment dropped significantly from 17% (76 of 443) in Period 1 to an average of 12% (178 of 1,503) in subsequent periods ( $\chi^2 = 8.5$ ,  $df = 1$ ,  $P = .004$ ).

Incidents of physical mistreatment appeared to be relatively rare; across the four study periods, only 5% (104 of 1,930) of students reported that they were victims of physical mistreatment. Incidence of reported physical mistreatment did not decline over time, despite the various institutional interventions. In fact, incidence of physical mistreatment increased significantly to 8% (38 of 472) in Period 4 compared with previous periods ( $\chi^2 = 9.551$ ,  $df = 3$ ,  $P < .001$ ).

### Gender differences

Table 1 compares the percentages of male and female students who reported various categories of mistreatment across the four study periods. We found no difference in the incidence of reported physical mistreatment between male and female students until 2006. In Period 4, female students reported incidents of physical mistreatment more frequently than male students (27 of 259, 10% versus 11 of 213, 5%;  $P < .05$ ). Similarly, female students reported incidents of verbal mistreatment more frequently than male students in Period 4 (108 of 259, 42% versus 69 of 213, 32%;  $P < .05$ ). Again, female students reported incidents of sexual harassment more frequently than male students across all survey periods ( $P < .001$ ). In Period 1, 31% of female students reported being sexually harassed (dropping to approximately 20% in subsequent years) compared with 5% of male students. We found no gender differences in reports of ethnic mistreatment or power mistreatment during any of the study periods.

### Mistreatment severity

A total of 1,166 students reported some form of mistreatment in our survey; of

Table 1

**Comparison of Male Versus Female Third-Year Medical Students Reporting Mistreatment, by Study Period, David Geffen School of Medicine at UCLA, 1996–2008**

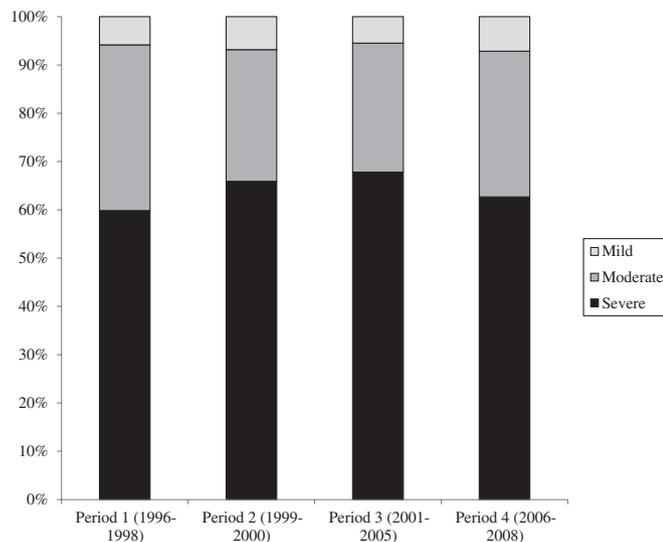
| Category of mistreatment | Study period, no. (%) |                       |                       |                       |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                          | Period 1<br>1996–1998 | Period 2<br>1999–2000 | Period 3<br>2001–2005 | Period 4<br>2006–2008 |
| <b>Physical</b>          |                       |                       |                       |                       |
| Male                     | 13/235 (5.5)          | 6/176 (3.4)           | 12/350 (3.4)          | 11/213 (5.2)          |
| Female                   | 10/188 (5.3)          | 5/119 (4.2)           | 17/365 (4.7)          | 27/259 (10.4)*        |
| <b>Verbal†</b>           |                       |                       |                       |                       |
| Male                     | 140/239 (58.6)        | 63/176 (35.8)         | 126/349 (36.1)        | 69/213 (32.4)         |
| Female                   | 100/194 (51.5)        | 48/119 (40.3)         | 149/364 (40.9)        | 108/259 (41.7)*       |
| <b>Sexual harassment</b> |                       |                       |                       |                       |
| Male                     | 7/241 (2.9)           | 7/176 (4.0)           | 14/350 (4.0)          | 17/213 (8.0)          |
| Female                   | 60/193 (31.1)         | 22/119 (18.5)         | 80/364 (22.0)         | 51/259 (19.7)         |
| <b>Ethnic</b>            |                       |                       |                       |                       |
| Male                     | 43/242 (17.8)         | 13/176 (7.4)          | 42/351 (12.0)         | 29/213 (13.6)         |
| Female                   | 32/196 (16.3)         | 13/119 (10.9)         | 50/365 (13.7)         | 29/259 (11.2)         |
| <b>Power</b>             |                       |                       |                       |                       |
| Male                     | 101/242 (41.7)        | 53/176 (31.1)         | 111/351 (31.6)        | 53/213 (24.9)         |
| Female                   | 86/196 (43.9)         | 27/119 (22.7)         | 138/365 (37.8)        | 72/259 (27.8)         |

\* $P < .05$ , male versus female in Period 4.

† $P < .001$ , male versus female across all periods.

those, only 945 (81%) chose to provide details on the circumstances and nature of the mistreatment (see Table 2). After excluding comments describing incidents involving patients or comments that lacked sufficient detail, we were left with 783 comments, which included 58 descriptions of physical mistreatment, 323 of verbal mistreatment, 114 of sexual harassment, 82 of ethnic mistreatment,

and 206 of power mistreatment. Figure 2 shows the percentages of comments describing each severity (mild, moderate, and severe) of all categories of mistreatment. Across the four study periods, we categorized 505 (64%) of the comments as severe, 228 (29%) as moderate, and 48 (6%) as mild. We found no statistically significant differences in this distribution across the four study



**Figure 2** Comparison of mild, moderate, and severe incidents of medical student mistreatment by study period, David Geffen School of Medicine at UCLA, 1996–2008.

Table 2

**Categories of Mistreatment, Severity of Mistreatment, and Illustrative Quotations From Third-Year Medical Students, David Geffen School of Medicine at UCLA, 1996–2008**

| Category of mistreatment  | Severity | Quotation  |
|---|----------|--|
| <b>Physical</b>   |          |  |
| Physically mistreated causing pain or potential injury  | Severe   | A cardiology fellow slapped my hand when I was unable to answer an EKG question and said: "If teaching doesn't help you learn, then pain will."  |
| Pushed/slapped hand ("get-out-of-the way" communication)  | Moderate | Pushed out of way for multiple deliveries during ob-gyn  |
| Exposed to other forms of physical mistreatment used to express frustration, make a point, or get attention   | Moderate | I was walking (slowly apparently) in front of my intern. She was frustrated and pushed me forward with both of her hands on my shoulders, saying: "walk faster!"   |
| <b>Verbal</b>   |          |  |
| Accused   | Severe   | Chief resident accused me and another student of not coming to the rotation on the prior day since she had not seen us.... She flat out accused us of lying even after we told her exactly which faculty and residents we had been with the prior day ... leaving me in tears.   |
| Threatened/intimidated  | Severe   | A surgical resident threatened to kill me during a chest tube placement. However, he was quite friendly afterwards.  |
| Yelled at/snapped at  | Moderate | Yelled at for paging fellow about time of rounds and about speaking up at journal club   |
| Degraded/ridiculed/humiliated/insulted/sworn at/scolded/berated   | Moderate | Many incidents of faculty and residents making derogatory comments regarding students in general, sometimes directed at me. Comments related to performance, knowledge, dress (i.e., how I look), etc. Unfortunately this is all too common.   |
| Exposed to inappropriate conversation/comments (of nonsexual and nonracial nature)  | Mild     | [The resident] then started screaming about "I ... hate surgery. I should have gone into anesthesiology. Do you want to be a surgeon?" I said "not anymore" and he said: "good, don't even think about it! I hate surgery" (insert many curse words in between). He wasn't necessarily verbally abusive but created a pretty hostile environment.  |
| <b>Sexual harassment</b>  |          |  |
| Exposed to hostile environment, including inappropriate physical contact, gender discrimination, sexual jokes, inappropriate comments, innuendo, and inappropriate requests | Severe   | Attending grabbed and attempted to kiss [me]. This was the reported incident. The other incidences consisted of being asked out and comments on how pretty and "distracting" to the other surgeons I was.  |
| Asked out (quid pro quo)  | Moderate | There was one attending (~50 years old) that asked me to play tennis with him. When I made excuses, he pushed me harder. When I reminded him that I was married and that I could not leave early to play tennis because I had work to do on the ward, he told my resident to give me the afternoon off. This attending never tried to kiss me, etc., but he did make me feel very uncomfortable. |
| Ignored because of gender   | Mild     | Most cases were just intentional neglect. On several rotations, I was paired with male medical students. Invariably, if there was a male attending over a certain age, I got ignored in favor of the male med student. I learned to live with it.  |
| <b>Ethnic</b>   |          |  |
| Exposed to racial or religious slurs/jokes  | Severe   | Upon hearing my last name, attending surgeon made "Chinese" noises.  |
| Stereotyped   | Moderate | Resident said that I'm just like all the other Asian families whose parents never love their kids and give unbelievable amounts of pressure to do well.  |
| Neglected/ignored (because of student's ethnicity)  | Mild     | I noticed the white males were addressed more and the other student I was paired with (white male) received many more opportunities to do ultrasounds; when I requested to do them, I was told that they were too busy.... I felt like they were trying to get rid of me ... when I tried to do extra things or help, I was constantly overlooked or unwanted.                                   |
| <b>Power</b>  |          |  |
| Dehumanized/demeaned/humiliated (nonverbally)/pimped out  | Severe   | Made to feel stupid for my mistakes. Made to feel ill at ease during rotations. Sometimes made to feel like a slave. Mostly made to doubt my abilities.  |
| Intimidated/threatened with evaluation or grade consequences  | Severe   | Two different residents made comments about if I left the OR to go to lecture or Doctoring, it would be reflected on my evaluation.  |
| Asked to do inappropriate tasks/scut work   | Moderate | Other team's residents made me get them dinner. They paid for the meal but made me lose out on 3 hrs of patient care as I went thru menus with them. Then I delivered them all food individually because they wouldn't come to me.   |
| Forced to adhere to inappropriate scheduling  | Moderate | Resident wanted us to take excessive calls, more than was expected, and in a very short time period.... Always wanted us to take calls before doctoring or lectures, even when that was not part of the expectations of the clerkship.   |
| Neglect/ignored   | Mild     | On medicine I had to consult surgery but the surgeon refused to speak to me because I was a medical student despite having the most complete knowledge about the patient as the new interns had just started that day.   |

periods. The percentage of comments for which we categorized the mistreatment as “mild,” “moderate,” or “severe” remained similar across the four study periods.

### Reporting of mistreatment

We found that few students who reported an incident of mistreatment on our survey indicated that they sought help or chose to formally report it to someone at DGSoM. The vast majority of the incidents captured in our survey then remained otherwise unreported. Students were least likely to report incidents of ethnic mistreatment (17 of 250 [7%] incidents were reported), followed by incidents of verbal mistreatment (102 of 780, 13%), power mistreatment (93 of 640, 15%), sexual harassment (37 of 253, 15%), and physical mistreatment (13 of 81, 16%). In general, the percentage of incidents of mistreatment that students formally reported did not increase across the four study periods. Students were only more likely in Period 4 to report incidents of verbal mistreatment (41 of 174 [24%] in Period 4 versus an average of 61 of 607 [10%] in Periods 1 to 3;  $\chi^2 = 25.266$ ,  $df = 3$ ,  $P < .001$ ).

### Sources of mistreatment

Across all categories of mistreatment, students most frequently reported being mistreated by residents (947 of 2,396; 40%) and clinical faculty (862 of 2,396; 36%). See Table 3 for a complete comparison of the reported sources of mistreatment.

### Discussion

Our longitudinal study examined the incidence and severity of specific categories of mistreatment in third-year

medical students over a period of 13 years. Despite the proactive approach taken by our institution to eradicate student mistreatment over this period, we found that the majority of our students continued to report some form of mistreatment at least once during their third-year clerkships. Students most commonly reported incidents of verbal and power mistreatment, followed by sexual harassment and ethnic mistreatment. Even incidents of physical mistreatment persisted throughout the study, albeit less frequently. Although we surveyed students at the end of their third year, AAMC Graduation Questionnaire data, collected from the same students at the end of their fourth year, indicated that the incidence of mistreatment at our institution is near the national average, 17% in 2009, suggesting that the environment at our institution is comparable to that at many other medical schools in the nation.

We are unsure why students immediately after their clerkships reported mistreatment at higher rates compared with graduating seniors. We hypothesize that students' experiences during the first two years of medical school, when they are the center of attention, are very different from their experiences during clerkships, when suddenly the patients, their families, and their care take priority. By the end of their fourth year, students may better be adjusted and understand their role in a complex health care system. However, this hypothesis deserves further study.

To our knowledge, our study is the first to consider the severity of mistreatment in an analysis of mistreatment patterns. We had hoped that, because the incidence

of mistreatment had remained steady across the study periods, at least the severity of the mistreatment would have shown a pattern of decline. In other words, such a scenario would have been a promising sign that the institutional initiatives were effective because minor incidents were being reported more often than more serious ones. Unfortunately, our qualitative analysis of students' descriptions of their mistreatment suggested that this was not the case; we found no evidence that the percentage of serious forms of mistreatment decreased across our study period.

Our finding that female students more often reported mistreatment than their male counterparts is consistent with a number of studies<sup>6,7,9,12</sup>; in particular, female students more frequently reported incidents of verbal mistreatment and sexual harassment. In addition, we found an increase in the number of incidents of physical mistreatment reported by females on our survey during Period 4.

Also consistent with previous studies,<sup>3,4,6,9,11–13</sup> we found that students most frequently reported being mistreated by residents and clinical faculty. Nurses were also frequent offenders, particularly of verbal and physical mistreatment. Although we continue to believe in the importance of training clinical staff and residents in what constitutes inappropriate behavior toward students and holding those who mistreat students accountable, our findings suggest that such interventions, no matter how well intended, may fail to address the full complexity of the culture

Table 3

### Comparison of Sources of Medical Student Mistreatment, by Category of Mistreatment, David Geffen School of Medicine at UCLA, 1996–2008

| Source of mistreatment | Category of mistreatment, no. (% of category total) |             |                   |             |             |                |
|------------------------|---|-------------|-------------------|-------------|-------------|----------------|
|                        | Physical  | Verbal      | Sexual harassment | Ethnic      | Power       | All categories |
| Preclinical faculty    | 4 (4.4)   | 54 (5.5)    | 11 (4.0)          | 24 (8.2)    | 59 (7.9)    | 152 (6.3)      |
| Clinical faculty       | 33 (36.3)   | 364 (36.9)  | 83 (30.1)         | 105 (36.0)  | 277 (36.9)  | 862 (36.0)     |
| Resident               | 24 (26.4)   | 369 (37.4)  | 99 (35.9)         | 82 (28.1)   | 373 (49.7)  | 947 (39.5)     |
| Student                | 2 (2.2)   | 28 (2.8)    | 22 (8.0)          | 29 (9.9)    | 5 (0.7)     | 86 (3.6)       |
| Patient                | 4 (4.4)   | 57 (5.8)    | 43 (15.6)         | 34 (11.6)   | 7 (0.9)     | 145 (6.1)      |
| Nurse                  | 23 (25.3)   | 112 (11.3)  | 16 (5.8)          | 12 (4.1)    | 24 (3.2)    | 187 (7.8)      |
| Other                  | 1 (1.1)   | 3 (0.3)     | 2 (0.7)           | 6 (2.1)     | 5 (0.7)     | 17 (0.7)       |
| Total                  | 91 (100.0)  | 987 (100.0) | 276 (100.0)       | 292 (100.0) | 750 (100.0) | 2,396 (100.0)  |

of mistreatment at our, and likely other, institutions.

Drawing on models from organizational psychology, Rees and Monrouxe<sup>8</sup> highlighted the complex interaction between person and environment by proposing four factors that contribute to a culture of mistreatment—the perpetrators, the organization (i.e., climate and hierarchy), the nature of the work, and, importantly, the victim. Illustrating how these factors interact with each other and operate in a complex academic health center, a recent survey conducted in part at UCLA found that two-thirds of residents have felt humiliated by nurses or witnessed other forms of inappropriate behavior, which then was associated with higher levels of resident cynicism and burnout.<sup>11</sup> In this context, the model “see one, do one, teach one” could result in residents emulating inappropriate behaviors in their own teaching, perpetuating the widespread view that student mistreatment is a “rite of passage.” In light of this finding, we consider it naïve to expect that our 30-minute workshop regarding student mistreatment given to residents at the beginning of their training would mitigate the effects of this hidden curriculum. Obviously, we need to do much more.

To make the situation more complex, academic health centers are not isolated entities; they exist within, and are influenced by, a national medical culture. Residents join training programs and are recruited from medical schools across the country (and beyond), where various levels of belittlement and harassment continue<sup>4</sup> and where the fraternity mentality of medicine persists (represented by a disparity in the composition of faculty who are promoted and hold leadership positions).<sup>17</sup>

How, then, can we eradicate the mistreatment of medical students? We find indispensable a concerted single institution-based effort, consisting of a coherent set of measures including, but not limited to, clearly articulated and well-disseminated zero-tolerance policies in regard to student and resident mistreatment, safe reporting mechanisms, and the investigation and mitigation of each individual incident of student mistreatment, using an

approach such as that suggested by Best and colleagues.<sup>10</sup> Building on this effort, we at DGSOM are now making a particular effort to identify individuals who demonstrate disrespectful behavior so that we can counsel these individuals.

Specifically, we will include targeted questions in the evaluations that students complete for all residents and faculty with whom they interacted during their clerkships. The students will rate the extent to which “I was treated with respect by this individual” and “I observed others (students, residents, staff, patients) being treated with respect by this individual.” Faculty at the University of California, San Francisco, successfully have used both questions to identify faculty and residents who have behaved inappropriately. Students’ negative responses to these questions will trigger both investigations into the residents’ and faculty’s behavior and consequences where warranted. We will disseminate widely this change in the wording of the evaluations because we believe that faculty and residents may be deterred from mistreating students once they understand that their inappropriate behavior will be specifically tracked. Conversely, we also will document the respect and duty that faculty, residents, and students show each other and consider such behavior in faculty promotion decisions.<sup>4</sup>

Going forward, we must address the impact that institutional stressors can have on faculty and staff. Although no excuse for mistreating students is acceptable, we may be able to mitigate such behavior with efforts designed to ensure that faculty and staff also feel valued and respected. Thus, we will reward departments whose faculty and residents score high on the student evaluation respect questions. In addition, we need mandatory training programs that involve trainees (i.e., medical students, residents, and fellows) and all those who interact with them (i.e., attendings, nurses, and staff). We will partner with the UCLA Health System to create a training module for the latter group. Also, we need both to continue to remind students that, when they report mistreatment, they are part of the solution, and to give them the tools to diffuse the situation themselves, which

might serve them better in the long term. By more effectively mitigating individual incidents without retaliation, we hope to encourage students to appropriately stand up for themselves when possible and/or to report the incident to someone who will intervene on their behalf when necessary.

To supplement such local measures, we also must encourage a national approach to eradicating medical student mistreatment. We suggest that national organizations such as the American Medical Association and the AAMC continue both to lead a dialogue about the deleterious consequences of student and resident mistreatment and to promote a research program that elucidates the complex interactions of factors contributing to a culture of mistreatment. Finally, we need to identify the training methods that are effective in preventing mistreatment and to disseminate widely best practices and resources, through venues such as MedEdPortal<sup>18</sup> and iCollaborative.<sup>19</sup>

### Limitations

Our study has several limitations. First, it reflects the experiences of students at one medical school and may not represent the experiences of those at other U.S. institutions. Second, our study is based on retrospective anonymous surveys of third-year students; we did not corroborate their responses with a third party. Third, although one of the strengths of our study is that we asked the same questions of students over an extended period of time, different cohorts of students may have interpreted the questions differently. With what we know about generational differences in medical students, it is possible that the students we surveyed in 1996 (born around 1972) may, as a cohort, have slightly different values and social norms than those students surveyed in 2008 (born around 1984), as suggested by one study.<sup>20</sup> Therefore, the changes in incidence of mistreatment that we observed (or the lack thereof) may not have been the result of policy changes but, instead, of a shift in attitudes among students regarding mistreatment. Fourth, our finding of differences in incidence of mistreatment by gender over time could be attributed to the gradual increase in the number of female students in medical school. Despite

these limitations, however, we find it disconcerting that students continued to report incidents of all categories of mistreatment at these rates.

## Conclusions

Whereas the formal curriculum at DG SOM attempts to instill humanism in our students, the hidden curriculum can undermine these efforts when faculty and residents do not model the behavior taught to students in the classroom. We suspect that our institution is not alone in this challenge. Although we find it difficult to share data revealing such thwarted efforts, exposing a hidden curriculum that perpetuates a culture of mistreatment is crucial to finding a solution. Furthermore, we must focus future research efforts on improving our understanding of how the interaction of factors related to a complex academic health center may hamper a change in the culture of mistreatment.

The steps that we have taken, including creating informal and formal mechanisms of reporting and resolving incidents of mistreatment, providing education for students, residents, and faculty, and promoting the open discussion of this topic at all levels, did not result in a change in culture. Eradicating medical student mistreatment then requires an aggressive, multipronged approach locally at the institution level as well as nationally across institutions.

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