

# Student Perceptions of Mistreatment and Harassment During Medical School

## A Survey of Ten United States Schools

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Senior students at 10 medical schools in the United States responded to a questionnaire that asked how often, if ever, they perceived themselves being mistreated or harassed during the course of their medical education. Results show that perceived mistreatment most often took the form of public humiliation (86.7%), although someone else taking credit for one's work (53.5%), being threatened with unfair grades (34.8%), and threatened with physical harm (26.4%) were also reported. Students also reported high rates of sexual harassment (55%) and pervasive negative comments about entering a career in medicine (91%). Residents and attending physicians were cited most frequently as sources of this mistreatment. With the exception of more reports of sexual harassment from women students, perceived mistreatment did not differ significantly across variables such as age, sex, religion, marital status, or having a physician parent. Scores from the 10 schools also did not vary significantly, although the presence of a larger percentage of women in the class appeared to increase overall reports of mistreatment from both sexes.

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Medical training has long been considered arduous and stressful. In the past, this often was considered a normal, if not essential, part of an educational process designed to prepare physicians for a difficult and demanding career. Both society and medical education have changed greatly over the years, and there are dramatic differences in the students currently entering medicine.<sup>1</sup> Women, minorities, and older students now constitute a substantial percentage of each class.<sup>2,3</sup> In light of these changes, there is a need to critically reexamine the reaction of students to their medical education experience.

Over the years, research on medical students has shifted from sociologic studies of the educational process, such as Becker and colleagues' *Boys in White: Student Culture in Medical School*, to reports of students' psychological reactions to or ability to cope with the process.<sup>4</sup> Recent work has focused on students' responses to the stress of their medical school experience, emphasizing symptoms such as anxiety, depression, dysphoria, anger, and suicide.<sup>5-8</sup> In general, these reports have implicated individual vulnerabilities and have suggested that certain students or groups of students are at greater risk.<sup>9,10</sup>

During the 1980s, several articulate medical students wrote vividly about their experiences, documenting feelings of humiliation, dehumanization, rejection, and alienation during their education.<sup>11-13</sup> In an analysis of four of these "insider" accounts, Conrad found that all struggled to learn medicine and, at the same time, maintain a humanistic, compassionate perspective.<sup>14</sup> Especially poignant were these students' concerns that eventually they would be "brainwashed" into becoming exactly like those who they felt had tormented them. Equally alarming were their reports of ex-

periences they perceived to be unethical or otherwise offensive and in which they were required to participate because of their subordinate position.

In 1982, Silver commented on the dysphoric reactions of medical students to the stressful environment of medical school.<sup>15</sup> In so doing, he used the word "abuse" to describe how the students were treated, drawing a suggestive parallel with child abuse. Similar signs included progressive apathy and depression in the subjects, possible long-term consequences stemming from such experiences, and incredulity and denial of such abuse by authority figures in the field. No data were presented at that time, but two years later Rosenberg and Silver published an article that included anecdotal data supporting the possibility of such a phenomenon.<sup>16</sup>

In December 1987, we designed and administered a questionnaire to third- and fourth-year medical students at a Midwestern medical school.<sup>17</sup> This pilot survey confirmed Silver's contention that medical students often are subjected to various forms of verbal harassment, including humiliation and belittlement, and are the victims of crude and insensitive remarks, primarily from residents and attending faculty. While few students reported outright physical abuse, complaints of sexual harassment, especially from residents, were relatively common. Examples included "passes in the on-call room," "unfair treatment due to pregnancy," and "propositions of good grades for sexual favors." Students also indicated that they frequently encountered negative comments about their choice of a career in medicine.

To further study the problem and to be able to generalize beyond these preliminary findings, we revised the questionnaire to include questions across a broad range of possible experiences of perceived mistreatment and harassment. The

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target population was expanded to include a sample of senior medical students at ten medical schools across the country.

### Subjects and Methods

The survey questionnaire was structured to gather information regarding the frequency with which the respondents had experienced different types of perceived mistreatment or harassment over the course of medical school, as well as the source of that perceived mistreatment. Items included being shouted or yelled at; being belittled or humiliated; being assigned tasks for punishment rather than for educational value; having someone take credit for the respondent's work; being physically threatened; being hit, slapped, kicked, or pushed; and being threatened with an unfair grade; as well as experiencing sexual harassment or exploitation and racial and ethnic discrimination. In addition, students were asked how often they had received disparaging remarks concerning their career choice or the practice of medicine, or both.

For each item, respondents were asked to indicate how often this experience had happened specifically to them: never, rarely (one or two times), sometimes (three or four times), or often (five or more times). Finally, students were asked to indicate the source of each type of perceived mistreatment from a list that included classmates, preclinical faculty, clinical faculty, residents or interns, nurses, and patients. Students also were asked to indicate how much the perceived mistreatment bothered them if it did occur and to estimate how often they believed these experiences happened to others at their school.

### Subjects

Questionnaires were distributed during the spring of 1988 to fourth-year students at ten medical schools: two each from the Northeast, South, and West and four from the Midwest. Other criteria for school selection included size of the student body (large or small), percentage of women enrolled (high or low), and age of the school (old or new). With the exception of two schools that made mailing lists available, questionnaires were sent to a member of the dean's office, who took responsibility for distribution, either by direct mail or in student mailboxes. All questionnaires were mailed back to the American Medical Association by the respondents, who were provided with stamped, self-addressed envelopes. This was a one-time, self-report survey, with no follow-up possible because all responses were anonymous.

### Response

A total of 989 questionnaires were distributed, corresponding to the number of senior students listed at each school. Of this number, 581 fully completed surveys were returned, for a response rate of 59%. Because senior students frequently are absent on residency interviews or elective rotations during their final year, it is not known how many of the questionnaires were actually received, so the effective response rate may have been higher. The average age of the respondents was 27.1 years (SD 3.74). Of those responding, 62% were men. Most (88%) identified themselves as white, with Asians next at 8%.

### Results

#### General Levels of Perceived Mistreatment or Harassment

Nearly all respondents (96.5%) reported experiencing at least one type of perceived mistreatment or harassment from

TABLE 1.—Respondents Reporting Some Perceived Mistreatment

| Mistreatment                   | Respondents |      |
|--------------------------------|-------------|------|
|                                | No.         | %    |
| Type                           |             |      |
| Shouted and yelled . . . . .   | 471         | 81.2 |
| Publicly humiliated . . . . .  | 503         | 86.7 |
| Tasks for punishment . . . . . | 213         | 36.7 |
| Take credit . . . . .          | 310         | 53.5 |
| Unfair grade . . . . .         | 202         | 34.8 |
| Threaten with harm . . . . .   | 153         | 26.4 |
| Hit or push . . . . .          | 105         | 18.1 |
| Sexual harassment . . . . .    | 319         | 55.0 |
| Racial harassment . . . . .    | 114         | 19.7 |
| Source*                        |             |      |
| Residents . . . . .            | 491         | 84.6 |
| Clinical faculty . . . . .     | 459         | 79.1 |
| Nurses . . . . .               | 384         | 66.2 |
| Patients . . . . .             | 345         | 59.5 |
| Classmates . . . . .           | 335         | 57.7 |
| Preclinical faculty . . . . .  | 247         | 42.6 |
| Total† . . . . .               | 581         | 96.5 |

\*These numbers do not include reports of sexual or racial or ethnic mistreatment.  
†Number of students reporting at least one incident of perceived mistreatment from any source at any time during medical school.

some source at some point during medical school. The bulk of this was of a psychological nature, such as being publicly humiliated or belittled or being shouted or yelled at (Table 1). More than half (55%) reported some form of sexual harassment and at least one instance of someone else taking credit for their work (53.5%). The least frequent category, being hit or pushed, was reported by just over 18% of the sample. In all cases, residents (84.6%) and clinical faculty (79.1%) were reported to be the primary sources of this perceived mistreatment.

Of the 26 different items listed in the questionnaire, the modal student indicated some mistreatment on 7 items. Less than 5% responded affirmatively to more than 17 of the items, while only 20 students (3.4%) reported no mistreatment at all.

#### Frequency of Different Types of Perceived Mistreatment by Source

Table 2 shows the reported frequencies for seven types of perceived mistreatment by source, as well as for negative comments about the students' choice of a medical career. For each listed source except classmates and preclinical faculty, nearly half reported some experience of being shouted or yelled at, although only 4% of the students reported this to be a frequent occurrence. Frequencies for feeling belittled or humiliated were higher. Nearly a third of the students claimed that this happened sometimes or often from residents, clinical faculty, and nurses. Note that while patients appeared to shout or yell at students about as often as residents, students felt considerably less humiliated by this behavior. Apparently students expect this behavior in their care of the sick, although it is perceived as humiliating in the teacher-student relationship.

Reports of academically based mistreatment (tasks for punishment, not being given credit for work, threatened unfairly with a failing grade), were mentioned much less frequently from all sources, with one exception—the house staff. More than 15% of the respondents reported that the assignment of tasks for punishment rather than for educational value or taking credit for their work occurred sometimes or often from residents.

Threats of physical harm and of being slapped, pushed, kicked, or hit were rare. Less than 5% of respondents reported mistreatment of this type from any source except patients, from whom 22% reported some type of physical threat and 11% actual physical abuse. Based on the respondents' marginal comments, most of these incidents occurred while on psychiatric rotations or in the emergency department. The 23 students (4%) who reported being struck by either clinical faculty or residents identified specific incidents on surgery rotations, such as being physically shoved aside or having their hands slapped with instruments while at the operating table.

*Disparaging Comments About Medicine and Their Career*

Nearly all of the students reported having received negative or disparaging comments about their choice of a medical career or the practice of medicine from at least one source.

TABLE 2.—Frequency of Perceived Mistreatment by Source

| Perceived Mistreatment/Source                  | Frequency |           |              |          |
|--|-----------|-----------|--------------|----------|
|  | Never, %  | Rarely, % | Sometimes, % | Often, % |
| <b>Shouted or yelled at you</b>                |           |           |              |          |
| Residents/interns                              | 52.2      | 27.6      | 16.0         | 4.1      |
| Patients                                       | 52.2      | 34.7      | 10.0         | 3.1      |
| Nurses   | 53.4      | 29.0      | 13.4         | 4.1      |
| Clinical faculty                               | 55.3      | 27.8      | 12.9         | 4.0      |
| Classmates                                     | 76.0      | 18.4      | 4.0          | 1.6      |
| Preclinical faculty                            | 83.3      | 14.8      | 1.6          | 0.3      |
| <b>Humiliated or belittled you</b>             |           |           |              |          |
| Residents/interns                              | 32.4      | 33.4      | 24.1         | 10.0     |
| Clinical faculty                               | 34.0      | 38.8      | 19.7         | 7.6      |
| Nurses   | 48.6      | 26.4      | 17.2         | 7.8      |
| Classmates                                     | 64.0      | 25.7      | 7.8          | 2.6      |
| Preclinical faculty                            | 67.6      | 25.3      | 5.7          | 1.4      |
| Patients                                       | 73.6      | 22.1      | 2.9          | 1.4      |
| <b>Assigned tasks for punishment</b>           |           |           |              |          |
| Residents/interns                              | 68.3      | 17.4      | 9.7          | 4.7      |
| Clinical faculty                               | 84.5      | 12.1      | 2.4          | 1.0      |
| Nurses   | 88.8      | 7.2       | 2.6          | 1.4      |
| Preclinical faculty                            | 91.9      | 7.1       | 0.5          | 0.5      |
| <b>Took credit for your work</b>               |           |           |              |          |
| Residents/interns                              | 55.3      | 26.0      | 14.3         | 4.3      |
| Classmates                                     | 70.7      | 22.6      | 5.9          | 0.9      |
| Clinical faculty                               | 88.3      | 7.8       | 2.8          | 1.2      |
| Nurses   | 91.0      | 6.9       | 1.0          | 1.0      |
| Preclinical faculty                            | 95.2      | 3.4       | 1.2          | 0.2      |
| <b>Graded unfairly</b>                         |           |           |              |          |
| Residents/interns                              | 74.0      | 17.4      | 7.0          | 1.6      |
| Clinical faculty                               | 80.4      | 15.8      | 2.8          | 1.1      |
| Preclinical faculty                            | 94.0      | 5.3       | 0.4          | 0.4      |
| <b>Threatened you with harm</b>                |           |           |              |          |
| Patients                                       | 78.1      | 17.6      | 3.3          | 1.0      |
| Residents/interns                              | 96.4      | 3.3       | 0.2          | 0.2      |
| Clinical faculty                               | 96.7      | 2.9       | 0.2          | 0.2      |
| Classmates                                     | 97.7      | 2.1       | 0.2          | 0.0      |
| Nurses   | 99.0      | 0.9       | 0.2          | 0.0      |
| Preclinical faculty                            | 99.3      | 0.7       | 0.0          | 0.0      |
| <b>Slapped, pushed, or bit you</b>             |           |           |              |          |
| Patients                                       | 88.7      | 10.2      | 0.9          | 0.2      |
| Clinical faculty                               | 95.7      | 3.4       | 0.9          | 0.0      |
| Residents/interns                              | 96.4      | 2.2       | 1.2          | 0.2      |
| Nurses   | 98.4      | 1.4       | 0.2          | 0.0      |
| Classmates                                     | 98.6      | 1.4       | 0.0          | 0.0      |
| Preclinical faculty                            | 99.5      | 0.5       | 0.0          | 0.0      |
| <b>Made disparaging remarks about medicine</b> |           |           |              |          |
| Residents/interns                              | 24.1      | 19.3      | 24.9         | 31.2     |
| Classmates                                     | 29.1      | 19.3      | 28.9         | 22.6     |
| Clinical faculty                               | 32.3      | 23.2      | 25.8         | 18.7     |
| Preclinical faculty                            | 46.0      | 25.9      | 18.9         | 9.3      |
| Nurses   | 51.8      | 23.5      | 14.0         | 10.7     |
| Family   | 70.9      | 19.0      | 6.4          | 3.7      |
| Patients                                       | 70.9      | 19.7      | 6.6          | 2.6      |

TABLE 3.—Mistreatment Indices for Selected Categories by Source of Mistreatment

| Source              | Mistreatment Index | Sexual Harassment | Disparaging Comments |
|---------------------|--------------------|-------------------|----------------------|
| Residents/interns   | 0.166              | 0.237             | 0.544                |
| Clinical faculty    | 0.113              | 0.208             | 0.436                |
| Patients            | 0.114              | 0.139             | 0.136                |
| Nurses              | 0.103              | 0.090             | 0.280                |
| Classmates          | 0.081              | 0.146             | 0.482                |
| Preclinical faculty | 0.041              | 0.117             | 0.302                |
| Family              | ...                | ...               | 0.143                |

| Psychological and Physical Mistreatment by Source |       |           |          |       |
|---|-------|-----------|----------|-------|
|   | Yell  | Humiliate | Threaten | Hit   |
| Residents/interns                                 | 0.241 | 0.373     | 0.015    | 0.018 |
| Clinical faculty                                  | 0.220 | 0.338     | 0.014    | 0.017 |
| Nurses  | 0.227 | 0.277     | 0.005    | 0.007 |
| Patients  | 0.214 | 0.107     | 0.089    | 0.042 |
| Classmates  | 0.102 | 0.162     | 0.008    | 0.004 |
| Preclinical faculty                               | 0.062 | 0.138     | 0.002    | 0.002 |
| Average   | 0.178 | 0.233     | 0.022    | 0.015 |

| Academic Mistreatment by Source |                     |             |                |
|---------------------------------|---------------------|-------------|----------------|
|                                 | Tasks as Punishment | Take Credit | Unfair Grading |
| Residents/interns               | 0.170               | 0.225       | 0.121          |
| Clinical faculty                | 0.067               | 0.056       | 0.082          |
| Nurses                          | 0.058               | 0.040       | ...            |
| Preclinical faculty             | 0.035               | 0.021       | 0.025          |
| Classmates                      | ...                 | 0.123       | ...            |
| Average                         | 0.083               | 0.093       | 0.076          |

More than 65% reported hearing these comments from clinical faculty, and more than 75% indicated receiving them from residents, nearly a third as a frequent occurrence. Such remarks related both to becoming a physician (91%) and the practice of medicine in general (95%). These remarks appeared to have had a notable effect. More than 70% of the students who reported hearing such comments said they were bothered by them.

*Computing an Index of Perceived Mistreatment*

To make comparisons easier, a series of indices were computed by combining the responses in each category of source and mistreatment type. Such an index combines quantity (number of responses) and frequency (number of occurrences). A high perceived mistreatment index (PMI) would result from either multiple sources and types of mistreatment or a high reported frequency in either of these categories. The highest PMI would result from a combination of multiple sources and high frequency of incidents. Computed in this manner, the PMI provides a gauge of the relative level of perceived mistreatment. The PMI is not a percentage nor a clear statement of frequency but, rather, a simple numeric index useful only for making comparisons between groups. The overall PMI is computed by adding the means of all the mistreatment items, excluding sexual and racial harassment, and dividing by the number of items. Finally, the resulting scores were divided by 3, producing an index ranging between a theoretic low of 0 (no mistreatment) and a high of 1 (mistreatment often, from all sources).

In Table 3, the overall mistreatment index confirms that residents were identified as the chief source of perceived mistreatment, with a figure twice that for classmates and four times that for preclinical faculty. The separate indices for the three categories of mistreatment (psychological, physical, and academic) showed a similar pattern. In almost every

case, the highest score was assigned to residents, with clinical faculty second and preclinical faculty generally the lowest. The single exception to this was reports of greater physical mistreatment from patients.

In addition to permitting comparisons between sources of mistreatment, the PMI also allows comparisons across various types of mistreatment. For example, the index scores for negative or disparaging comments about medicine are noticeably higher than those reported for any other type of perceived mistreatment. Psychological mistreatment is the next most common, with physical mistreatment the lowest, and academic mistreatment falling in the middle.

*Comparison Across Demographic Variables*

Use of the PMI revealed no significant differences in the reporting of perceived mistreatment in the categories of age, sex, religion, marital status, or having a parent who is a physician (Table 4). Some differences were recorded among the schools in the sample, but these do not achieve statistical significance except for a single school. There were no significant differences in the PMI scores between small and large or new and old schools or between those from different regions of the country. When the PMI scores from each of the sample schools were compared with the percentage of women enrolled in that school, however, the result was a strong linear relation, with a single exception (Figure 1). When that outlier is excluded, the correlation between percentage of women enrolled and reported level of mistreatment is +.89 (n = 9). As seen in Table 4, this is not due to women reporting more mistreatment. It may be that a larger percentage of women in the class either reinforces traditional male-oriented norms and behaviors or else serves to sensitize the entire student body to the existence of mistreatment and discrimination and, therefore, increases its report.<sup>18</sup>

*Degree of Effect*

The effect of perceived mistreatment on the students was measured by a question after each section asking them to indicate how much the event bothered them. Answers to this question were coded on a 3-point scale: 0, not at all; 1, somewhat; and 2, a lot. Threatening a student with an unfair grade seemed to cause the most concern (mean 1.7), but threats of physical harm bothered respondents the least (0.6). Incidents of belittling and humiliation had the second strongest effect on the medical students (1.3), along with sexual harassment (1.1). The earlier finding that humiliation was

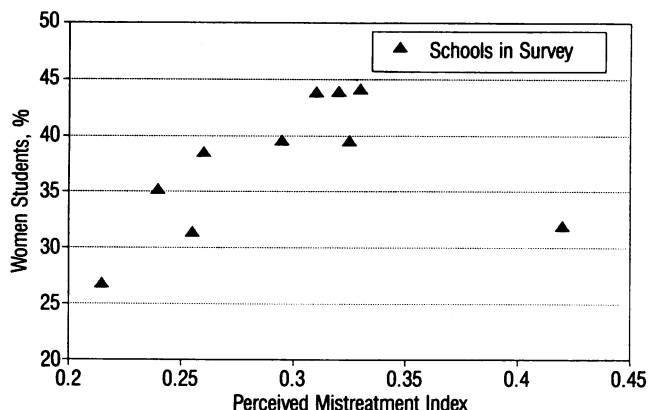


Figure 1.—The perceived mistreatment index is shown by the percentage of women students in the surveyed schools.

TABLE 4.—Mistreatment Indices for Selected Variables\*

| Variable                    | Means | Responses, No. |
|-----------------------------|-------|----------------|
| Sex                         |       |                |
| Men .....                   | 0.302 | 361            |
| Women .....                 | 0.293 | 219            |
| Age, years                  |       |                |
| ≤ 25 .....                  | 0.280 | 280            |
| ≥ 26 .....                  | 0.314 | 295            |
| Religion                    |       |                |
| Catholic .....              | 0.309 | 163            |
| Protestant .....            | 0.273 | 169            |
| Jewish .....                | 0.305 | 63             |
| Other .....                 | 0.337 | 50             |
| None .....                  | 0.310 | 125            |
| Marital status              |       |                |
| Never married .....         | 0.296 | 351            |
| Married .....               | 0.291 | 169            |
| Divorced or separated ..... | 0.305 | 28             |
| Physician parent            |       |                |
| Yes .....                   | 0.277 | 102            |
| No .....                    | 0.304 | 475            |
| Schools                     |       |                |
| 1 .....                     | 0.312 | 41             |
| 2 .....                     | 0.254 | 37             |
| 3 .....                     | 0.318 | 58             |
| 4 .....                     | 0.216 | 44             |
| 5 .....                     | 0.418 | 46             |
| 6 .....                     | 0.295 | 60             |
| 7 .....                     | 0.328 | 77             |
| 8 .....                     | 0.239 | 83             |
| 9 .....                     | 0.328 | 91             |
| 10 .....                    | 0.262 | 44             |

\*Numbers may not always total 581 because of missing responses.

the most frequently cited type of mistreatment, combined with this relatively serious effect on the students, suggests that humiliation may have been the most notable form of harassment experienced by students overall.

**Sexual Harassment and Discrimination**

Reports of sexual harassment or discrimination differed substantially by the respondent's sex. Table 5 shows that sexual harassment was a fairly common experience for the women students. Just less than half of them indicated some type of harassment from classmates and preclinical faculty, and close to two thirds reported at least one incident involving clinical faculty or residents. Of the women respondents, 30% reported such harassment from these last sources on three or more occasions.

About 25% of men reported some type of sexual harassment from clinical faculty and residents, with 5% stating that this was a frequent occurrence from residents. Marginal comments suggested two general patterns. First, there were reports from gay men who felt discriminated against because of their sexual preferences. Second, many men felt that women were shown favoritism on clerkship rotations, either by men who found them attractive or by women residents who wanted to help them along. The clear finding, however, is that women reported sexual harassment as much as four times more often than did men.

Table 6 gives the distribution of specific kinds of sexual harassment cited by both men and women respondents. For the women, the biggest complaint was of sexist slurs, ranging from being called "Honey" to statements that women were less capable or did not belong in medicine or in a particular specialty. The second most cited area was favoritism in terms of grades or attention. Both men and women respondents felt

TABLE 5.—Frequency of Sexual Harassment or Discrimination by Source

| Sexual Harassment by Source   | Frequency |           |               |          |
|-------------------------------|-----------|-----------|---------------|----------|
|                               | Never, %  | Rarely, % | Some-times, % | Often, % |
| <b>Of Men</b>                 |           |           |               |          |
| Classmates . . . . .          | 85.6      | 8.6       | 3.3           | 2.5      |
| Preclinical faculty . . . . . | 85.6      | 10.3      | 2.5           | 1.7      |
| Clinical faculty . . . . .    | 76.2      | 13.6      | 7.2           | 2.8      |
| Residents/interns . . . . .   | 70.9      | 16.6      | 7.5           | 4.7      |
| Nurses . . . . .              | 88.6      | 6.4       | 3.9           | 1.1      |
| Patients . . . . .            | 87.8      | 8.1       | 3.6           | 0.6      |
| <b>Of Women</b>               |           |           |               |          |
| Classmates . . . . .          | 54.4      | 18.9      | 20.3          | 6.5      |
| Preclinical faculty . . . . . | 59.1      | 26.5      | 10.7          | 3.7      |
| Clinical faculty . . . . .    | 34.4      | 34.9      | 20.9          | 9.8      |
| Residents/interns . . . . .   | 37.8      | 24.4      | 24.9          | 12.9     |
| Nurses . . . . .              | 73.1      | 15.7      | 6.5           | 4.6      |
| Patients . . . . .            | 47.5      | 29.5      | 15.7          | 7.4      |

that members of the opposite sex were being given preferential treatment on the basis of their gender.

Only one man and three women reported that they had been directly propositioned for sexual favors. Almost 30% of the women and 5.6% of the men reported encountering some kind of sexual advance, however.

### Discussion

The primary objective of our study was to determine whether mistreatment and harassment in medical school is an isolated experience or a widespread perception. Based on a relatively large sample at a variety of schools with differing sizes, locations, and traditions, our findings suggest that the perception of mistreatment exists among most students in a number of medical schools and probably is present in all.

The results confirm Silver's earlier observations<sup>15,16</sup> as well as recent reports from contemporary, single-school studies.<sup>19,20</sup> Nearly all of the medical students in the survey claimed to have experienced some type of mistreatment. This most often took the form of public humiliation, although being threatened with unfair grades and having someone else take credit for one's work also were frequently reported. In addition, high rates of sexual harassment or discrimination were reported. Residents and attending physicians were cited most frequently as the sources of such mistreatment. Combined with reports of pervasive negative comments about medicine as a career from faculty and others, these results suggest that medical education is occurring in an insensitive, occasionally punitive environment, which adds psychological hazing to a taxing curriculum and workload. No comparable studies as yet have been reported on students in other fields.

As with any self-report study, the interpretation of these findings must be guarded. Like pain, mistreatment and harassment are largely subjective experiences that are best known to the subject. Despite the liberal use of examples, the survey instrument gave no precise definition of mistreatment. Responses were left to the interpretation and description of the respondents. Undoubtedly, there are great differences among students in their expectations of the student role and their perceptions of what might be considered mistreatment or harassment.<sup>21</sup> Although this involves a high degree of subjectivity, it is fully consistent with the topic at hand. Students may feel mistreated in different ways depending on the particular situation. Their common experience,

TABLE 6.—Types of Sexual Harassment by Sex of Respondents

| Sexual Harassment                     | Men, %<br>n = 361 | Women, %<br>n = 219 |
|---------------------------------------|-------------------|---------------------|
| Sexist slurs . . . . .                | 10.0              | 61.5                |
| Favoritism . . . . .                  | 24.2              | 46.3                |
| Sexual advances . . . . .             | 5.6               | 28.9                |
| Sexist teaching materials . . . . .   | 5.4               | 25.7                |
| Poor evaluations . . . . .            | 12.8              | 24.3                |
| Denied opportunities . . . . .        | 9.4               | 23.4                |
| Malicious gossip . . . . .            | 7.5               | 19.3                |
| Exchange of rewards for sexual favors | 0.3               | 1.4                 |

however, is that some aspects of their education are perceived as abusive.

Concern also can be raised over the response rate of 59%. While such figures are considered acceptable by most opinion survey researchers, it would have been desirable to have had a higher response rate. On the other hand, there were negligible differences between schools with higher and lower response rates with regard to individual items or categories, suggesting that higher response rates probably would have made little difference. Indeed, several recent studies have suggested that higher response rates may not be required in attitudinal surveys when there is reason to think that respondents are not significantly different from nonrespondents.<sup>22,23</sup> Under the conditions of student mobility and absence during the senior year, the response rate of nearly 60% to a lengthy, 11-page questionnaire in the midst of a busy clinical schedule appears valid.

Beyond concerns over the findings of verbal, physical, sexual, and other forms of perceived mistreatment looms the larger issue of what effect such a learning environment may have on students, especially with regard to their future careers as physicians. It would be difficult to see a "kinder and gentler" physician emerging from an environment in which students perceive themselves as having been mistreated or humiliated to the extent revealed in this survey. Of more serious note is the possibility that such attitudes and behaviors may be visited on younger students or even patients. If child abuse is an appropriate analogue, there may be a "transgenerational legacy" that leads to future mistreatment of others on the part of those who have been mistreated as students. The irony of these findings is that these senior medical students will become residents within a few months and are being prepared for a profession in which they will eventually assume positions of considerable authority over future students and their patients.

The question must be raised as to why students have submitted to such mistreatment and harassment for so long without complaining. Recent reports, as well as marginal comments on the survey, speak of the perceived uselessness of such complaints.<sup>19,20</sup> The answer appears to lie in the enormous emotional, intellectual, physical, and economic commitments made by most medical students to their aspirations for a career in medicine. It seems to be both cognitively and emotionally dissonant for students to think that their role models could or would want to mistreat them. This may explain why many older physicians deny such feelings or experiences in their own education and training.

This delivery of power into the hands of faculty and supervisory personnel makes the issue of sexual harassment

difficult to assess and to control. There can be no assurance that a student does not feel somehow pressured or compelled to participate in an activity, however consensual, that carries with it the possible threat of domination and rejection.<sup>24</sup> Judging from the data reported here and elsewhere, it appears that faculty and residents do sexually harass and exploit students and that the latter, more frequently than not, feel aggrieved by the process. This is of even greater concern because of emerging evidence that students who have participated in a sexual relationship with a supervisor during training are more likely later to engage in sexual relationships with patients.<sup>25</sup>

The extraordinarily high number of negative comments reported as being made to medical students concerning their choice of a career in medicine should be of concern to medical school administrators and to organized medicine. The occasional comment of dissatisfaction with job or career training is to be expected and may be a painful but honest perception on the part of residents and faculty. Exposure over several years, however, to denigrating, negative comments about one's chosen profession must surely impair morale and foster uncertainty and self-doubt among students. Such negative comments may further enhance the feelings of mistreatment among medical students, if they are led to believe that they have made a poor career choice in the face of the obvious stresses of medical school.

In conclusion, we have presented data strongly suggesting that some form of mistreatment and harassment during medical school is a part of many students' perceptions and experience. The overriding point may not be the specifics of such mistreatment so much as the effect it may have on students' future attitudes and behavior as physicians. It seems likely that such experiences compromise the learning environment, impair the well-being and emotional development of students, and establish poor modeling of the professional role, all of which may translate into impaired physicians and even impaired patient care. In the words of one of the students, "Good medical training does not have to be humiliating or dehumanizing."

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