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Do Attending Physicians, Nurses, Residents, and Medical Students Agree on What Constitutes Medical Student Abuse?

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Abstract

Background

Whether attending physicians, residents, nurses, and medical students agree on what constitutes medical student abuse, its severity, or influencing factors is unknown.

Method

We surveyed 237 internal medicine attending physicians, residents, medical students, and nurses at 13 medical schools after viewing five vignettes depicting potentially abusive behaviors.

Results

The majority of each group felt the belittlement, ethnic insensitivity, and sexual harassment scenarios represented abuse but that excluding a student from participating in a procedure did not. Only a majority of attending physicians considered the negative feedback scenario as abuse. Medical students rated abuse severity significantly lower than other groups in the belittlement scenario ($p < .05$). Respondents who felt

abused as students were more likely to rate behaviors as abusive ($p < .05$).

Conclusions

The groups generally agree on what constitutes abuse, but attending physicians and those abused as students may perceive more behaviors as abusive.

Acad Med. 2005;80(10 suppl):S80-S83.

Abuse of medical students has been recognized as a problem since the 1960s. The Association of American Medical Colleges' Medical School Graduation Questionnaire has shown since 1992 that up to half of graduating medical students felt that they had been abused during medical school, with the clinical rotations being the most common setting.¹ Studies from the 1990s report that between 40% and 80% of medical students feel that they were mistreated during medical school, especially during the third year.²⁻⁴ Women and minorities are more likely to state that they have been abused.³ The family medicine clerkship has the lowest rate of abuse, while internal medicine, pediatrics, and psychiatry have intermediate rates. Surgery and obstetrics-gynecology have the highest rates.⁴

Studies of medical student abuse have had methodological problems that limit our ability to generalize data, make

conclusions, and recommend significant changes. First, most studies have dealt with a single medical school, or a single class of students. Second, many studies surveyed students at the end of an academic year or after medical school has been completed, when recall bias is a problem. Third, studies with large sample sizes were often part of another study, which limited the depth of questioning about abuse. Fourth, studies have dealt only with the student's perspective. Events have not been verified, and are retrospective descriptions from one person's point of view.

The abuse of medical students has various sources and forms. Students most commonly cite attending physicians and housestaff as sources of abuse, but nurses, patients, and sometimes other students are mentioned.^{1,5} The most common types of abuse include belittlement, assignment of inappropriate tasks, sexual harassment, physical abuse, and racial or gender-based discrimination.⁶⁻⁸ Our group previously surveyed students at 11 medical schools about their experience during the internal medicine clerkship.^{9,10} About 11% felt that they had been

abused, with housestaff and attending physicians accounting for more than half of the episodes. Students cited belittlement and performance of inappropriate tasks as the most common types of abuse, with belittlement as the most severe form. Less common but serious types of abuse included sexual harassment, racial incidents, and physical abuse. Female students were more likely to report incidents than male students, which mirrored trends noted in other studies.

Since actual abusive events cannot be videotaped when they occur, we created five sample scenarios, which contained examples of potential abuse. We wished to examine whether internal medicine attending physicians, nurses, internal medicine residents, and third- and fourth-year medical students felt that the each of the five scenarios depicted medical student abuse, and if so, how severe was the abuse. We also wished to assess if gender, race, training level, or perceived personal history of medical student abuse influenced whether a respondent was more likely to perceive a scenario as abusive.

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Method

We designed five video scenarios of behavior that might be considered medical student abuse, with scripts written by faculty members at the participating institutions. The content was chosen to reflect situations representative of those that students reported in our earlier study.^{9,10} We designed the scenarios to depict behavior that represented a spectrum of behavior from mildly improper to clearly abusive. The scenarios were videotaped using facilities and actors at Texas A & M University/Scott and White Memorial Hospital. The scenario topics, descriptions, titles, and authors were as follows: (1) belittlement, in which an attending physician criticizes a student during attending rounds in the presence of an intern and resident (“When Pimping Goes Too Far”); (2) ethnic insensitivity, in which a resident tells a Vietnamese student to convey sensitive clinical information to a Vietnamese patient that the student does not know (“Ethnic Insensitivity”); (3) negative feedback, in which an attending criticizes a student in the presence of other students for a poor patient presentation (“Feedback or Abuse?”); (4) sexual harassment, in which a male resident repeatedly invites a female student to socialize while reminding her of his pending evaluation of her (“Sexual Harassment?”); and (5) excluding a student from participating in a procedure, in which a resident and intern perform a thoracentesis on a student’s patient, while she is at a conference (“The Scut Dog”). The titles or topics of the scenarios did not appear in written form in the video. Copies of the videos were sent to 13 medical schools: Brown University, George Washington University, Loma Linda University, Mayo Clinic College of Medicine, Mount Sinai School of Medicine, State University of New York at Syracuse, Texas A & M University, University of Alabama at Birmingham, University of Florida, University of Miami, University of Pittsburgh, University of South Florida, and University of Utah.

The co-investigator at each institution recruited volunteer participants by direct solicitation during department functions and announcements. Each co-investigator asked for participants to come to a conference, during which the scenarios were shown to four or more

internal medicine attending physicians, nurses, internal medicine residents, and third- or fourth-year medical students as a group. In a few cases, because of logistical reasons, the scenarios were shown to separate groups at a mutually convenient time. We recruited at least 16 participants from each school, based on our power calculation, and to maintain balance among schools. All participants gave informed consent prior to participation. No personal identifiers were collected. We obtained demographic information from each participant, including gender, race, and whether they had been abused as students (“Do you feel that you were abused or mistreated as a medical/nursing student?” Yes or No). We asked participants whether they thought that each episode represented abuse of a medical student. “Abuse” for the purposes of this study was defined on the first page of the survey as “policies, speech, actions, or behaviors that treat a student in a threatening, intimidating, or otherwise inappropriate manner sufficient to adversely affect the student’s learning environment.” If they responded “No” they were asked to explain their answer. Those who answered “Yes” were asked to complete the rest of the survey. These questions included multiple-choice responses to describe what type of abuse had taken place. The choices included racial or ethnic discrimination, belittling or humiliation, sexual harassment, inappropriate tasks, and other. Participants were asked to rate the seriousness of the episode they had witnessed, using a seven-point Likert scale, with 7 being most serious and 1 the least. Participants did not interact or discuss the scenarios until all scenarios were shown and forms completed and collected.

We performed a power calculation prior to the study using a two-tailed alpha of .05 and assuming 16 participants enrolled at 12 schools ($N = 192$). We had greater than 80% power to see an effect size of 20% between the groups on whether a scenario represented abuse. Using standard deviations of severity scores from the earlier study (standard deviation, 1.54), we assumed a power of greater than 80% to see a 0.5-unit difference in severity on a seven-point Likert Scale.

All analysis was performed at the University of Pittsburgh on JMP Software (SAS Institute, Cary, NC). Comparisons between nominal variables, such as each participant’s educational level, were performed with chi-square tests. Comparisons of means were done with *t* tests, analysis of variance, or the Kruskal-Wallis test where appropriate. The study was performed with the approval of the Institutional Review Board of the University of Pittsburgh and those at the other participating institutions. Funding for the study was provided by the Shadyside Hospital Foundation (Pittsburgh, PA) and the Scott and White Memorial Hospital (Temple, TX).

Results

There were 237 respondents. The educational level of 17 respondents was missing, and they were excluded from any analysis that examined these response groups. Of the remaining 220 respondents, 54 were attending physicians (24.5%), 42 were nurses (19.1%), 71 were residents (32.3%), and 53 were medical students (24.1%). Females comprised 52.2% of the entire group, but represented 91.9% of nurses, 38.8% of attending physicians, 46.3% of residents, and 42.9% of medical students. Regarding race, 75.0% of respondents were white, with fewer proportions of minorities (Asian 13.0%, Hispanic 3.5%, African American 2.5%, mixed 2.0%, and other 8.0%). Neither gender nor race affected perception of abuse for any scenario.

Table 1 shows the percentages of respondents who perceived abuse and the mean severity ratings. For four scenarios, at least 75.9% or more of each group agreed on whether or not each scenario represented abuse. However, in the negative feedback scenario (“Feedback or Abuse?”), only a majority of attending physicians felt it represented abuse. For this scenario, attending physicians were more likely than nurses (relative risk, 1.89; 95% confidence interval, 1.32–2.69) and students (relative risk, 1.79; 95% confidence interval, 1.22–2.61) to perceive abuse. For all scenarios, each response group perceived abuse with similar severity, except in the belittlement scenario (“When Pimping Goes Too Far”), for which students rated severity significantly lower compared to attending physicians, nurses, and residents (all $p < .05$).

Table 1
Respondents' Perceptions of Whether Scenarios Represented Abuse, and Corresponding Mean Severity

	When Pimping	Ethnic Insensitivity	Feedback or Abuse?	Sexual Harassment?	The Scut Dog
Overall	88.9* (5.0)	89.4 (6.0)	37.1* (4.1)	96.6 (5.8)	19.1* (4.0)
Attending	90.6 (5.3)	92.5 (5.8)	57.4† (4.0)	98.1 (5.8)	24.1 (3.7)
Nurse	81.0 (5.2)	88.1 (6.3)	21.4 (4.7)	92.5 (5.8)	19.0 (3.8)
Resident	88.7 (5.2)	92.5 (6.0)	40.8 (4.4)	98.6 (5.9)	20.0 (4.1)
Student	90.4 (4.4)‡	89.5 (6.1)	28.3 (3.7)	92.5 (5.6)	15.1 (4.6)

Each cell shows the percentage of respondents responding "Yes" with the mean severity of abuse in parentheses. Severity was rated on a scale from 1 = low to 7 = high.

* Respondents who reported a history of abuse were more likely to perceive abuse in these scenarios ($p < .05$).

† Attending physicians were more likely to perceive abuse compared to nurses and students ($p < .05$).

‡ Students' perceived severity was significantly lower compared to attending physicians, nurses, and residents ($p < .05$).

Of 201 participants responding, 90 reported being abused during training (44.8%). Persons reporting personal experience of abuse were more likely to perceive the belittlement (94.4% versus 81.8%), negative feedback (50% versus 28.8%), and excluding a student from participating in a procedure (27.8% versus 14.5%) scenarios as abuse (all $p < .05$).

Discussion

Based upon previous literature, we concluded that students perceive significant incidents of abuse during medical school, especially during the core clerkships. Prior studies do not demonstrate if this is merely a perception of the students, or if different observers would perceive the same incident similarly. For instance, a student might complain of belittlement, whereas an attending physician or resident would see the same scenario as negative feedback. A student might complain that a task was inappropriate, such as drawing blood, whereas the resident is trying to be efficient. A student might perceive that she is being sexually harassed by a male resident, whereas the resident feels that he is just flirting.

In this study, four different groups in the medical training hierarchy (attending physicians, nurses, residents, and students) generally agreed about what did and did not constitute abuse. Only one of the five scenarios was rated differently between the groups. Most attending physicians felt that the negative feedback scenario represented abuse, but most nurses, residents, and students did not. Considering that attending physicians are

the most commonly cited group for perpetrating reported abuse, it is curious that this group alone saw this behavior as abusive. Perhaps these attending physicians were somehow more sensitive to abuse because of selection bias, prior history of them being the recipient of abuse, their academic position, or social desirability.

The students' mean severity rating was significantly lower for the belittlement scenario compared to attending physicians, residents, and nurses. There was a trend for students to rate the severity of abuse lower than attending physicians for the negative feedback scenario. These findings would suggest that students expect a certain amount of negative feedback and criticism.

Respondents were more likely to consider a scenario as abusive if they had personally experienced abuse. In contrast to prior studies, we did not see differences in perception of abuse based on race or gender. The lack of increased perception of abuse by women suggests that the finding in previous studies that women are more likely to experience abuse than men is indeed real, and not just a difference of perception.

Our study had some limitations. Although the scenarios were picked to represent commonly reported problems, they may have been too obvious to detect differences between groups. The scenarios were not formally evaluated for reliability. Content validity was determined from our previous research, interaction with multiple colleagues, and known literature. The participants may

not be a representative group of those in the medical center setting. Since we recruited participants through announcements, those who attended the study sessions may have been more inclined to perceive abuse, either from personal experience or personal opinion on the subject. Furthermore, the participants viewed each scenario only once and had to decide immediately if it was abuse. It is possible that the participants may have been cued to look for a particular type of abuse, since survey form listed specific types of abusive behavior for participants to select. We chose residents and attending physicians in internal medicine for logistical reasons, and their responses may not be generalizable to other specialties.

However, our study did have strengths that should be noted. The same scenarios were presented to all participants. There was no recall bias in perceiving the scenarios as abuse. We studied persons from 13 medical schools across a wide geographical distribution. We studied not only students, but also attending physicians, nurses, and residents, all of whom are common sources of abuse.

Reports of abuse in medical school have various personal and educational effects on the students. Abuse has been linked to negative psychological outcomes, such as depression, anxiety, hostility, and problem drinking.^{8,11} One student contemplated a lawsuit against the department of medicine at his school.¹⁰ Educational effects include a poor learning environment, lack of confidence in skills, and a negative attitude toward the clerkship specialty.¹² Some students have stated that they would have picked another career, if they could do it over. In one study, women who had experienced abuse in medical school stated that they would not enter a career in medicine if they had to make the choice again.⁸ Abused students tend to become cynical about the practice of medicine.⁶ Our study suggests that when a student perceives abuse, there is a high likelihood that others in the educational setting would agree.

The future of the profession requires us to take this problem seriously and take action to decrease the incidence of student abuse in our schools. An important step is to recognize and discuss

potentially abusive scenarios. We plan to use these video scenarios as curricular tools to help physicians, nurses, and students recognize and prevent abuse.

We gratefully acknowledge the support of the Shadyside Hospital Foundation (Pittsburgh, PA) and Scott and White Hospital (Temple, TX).

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