

Academic Medicine

DOI: 10.1097/ACM.0000000000004223

Perception of Medical Student Mistreatment: Does Specialty Matter?

Kevin E. O'Brien, MD, Alex J. Mechaber, MD, Cynthia H. Ledford, MD, Farina A.

Klocksieben, MPH, Mark J. Fagan, MD, Heather E. Harrell, MD, Susan Kaib, MD, Mike

Elnicki, MD, Reed Van Deusen, MD, Scott Moerdler, MD, Reshma Jagsi, MD, DPhil, and Erica

Frank, MD, MPH for the Perceived Abuse of Medical Students (PAMS) Investigators

K.E. O'Brien is a professor, Division of General Internal Medicine, University of South Florida Morsani College of Medicine, Tampa, Florida; ORCID: <https://orcid.org/0000-0003-3293-7458>.

A.J. Mechaber is professor emeritus, University of Miami Leonard Miller School of Medicine, Miami, Florida.

C.H. Ledford is a professor and associate dean, Undergraduate Clinical Education, Oakland University William Beaumont School of Medicine, Rochester, Michigan.

F.A. Klocksieben is a statistical data analyst, Research Methodology and Biostatistics Core, University of South Florida Morsani College of Medicine, Tampa, Florida; ORCID: <https://orcid.org/0000-0003-0576-3771>.

M.J. Fagan is a professor of medicine, emeritus, Alpert Medical School of Brown University, Providence, Rhode Island.

H.E. Harrell is a professor of medicine, University of Florida College of Medicine, Gainesville, Florida.

S. Kaib is an associate professor and associate dean, Student Affairs, Department of Family, Community, and Preventive Medicine, University of Arizona-Phoenix College of Medicine, Phoenix, Arizona.

M. Elnicki is a professor of medicine, University of Pittsburgh, Pittsburgh, Pennsylvania.

R. Van Deusen is an associate professor of medicine, University of Pittsburgh, Pittsburgh, Pennsylvania.

S. Moerdler is an assistant professor, Department of Pediatrics, Division of Hematology/Oncology, Rutgers Cancer Institute of New Jersey, Rutgers Robert Wood Johnson Medical School, New Brunswick, New Jersey.

R. Jagsi is a professor, deputy chair, Department of Radiation Oncology, and director, Center for Bioethics and Social Sciences in Medicine, University of Michigan School of Medicine, Ann Arbor, Michigan.

E. Frank is a professor and the Canada Research Chair in Preventive Medicine and Population Health, University of British Columbia, Vancouver, British Columbia, Canada.

Correspondence should be addressed to: Kevin O'Brien, University of South Florida Morsani College of Medicine, 13330 USF Laurel Drive MDC 80, Tampa, Florida 33612; telephone: (813) 974-4275; email: obrienk@usf.edu

Supplemental digital content for this article is available at

<http://links.lww.com/ACADMED/B140>.

Acknowledgements: None reported.

Funding/support: Videos were created in 2004 with partial funding from research grants from the Shadyside Foundation and Scott and White. The authors received an Alliance for Academic Internal Medicine seed grant in 2016 for the work described in this report. Dr. Frank is supported by her position as Canada Research Chair in Preventive Medicine and Population Health.

Other disclosures: None reported.

Ethical approval: The Institutional Review Board at the University of South Florida approved the design protocol and granted ethical approval on July 5, 2016 (Protocol #00023734).

Abstract

Purpose

Medical student mistreatment is pervasive, yet whether all physicians have a shared understanding of the problem is unclear. The authors presented professionally designed trigger videos to physicians from six different specialties to determine if they perceive mistreatment and its severity similarly.

Method

From October 2016 to August 2018, resident and attending physicians from 10 U.S. medical schools viewed five trigger videos showing behaviors that could be perceived as mistreatment. They completed a survey exploring their perceptions. The authors compared perceptions of mistreatment across specialties and, for each scenario, evaluated the relationship between specialty and perception of mistreatment.

Results

Six-hundred and fifty resident and attending physicians participated. There were statistically significant differences in perception of mistreatment across specialties for three of the five scenarios: aggressive questioning (range 74.1%-91.2%), negative feedback (range 25.4%-63.7%), and assignment of inappropriate tasks (range 5.5%-25.5%) ($P \leq .001$, for all). After adjusting for gender, race, professional role, and prior mistreatment, physicians in surgery viewed three scenarios (aggressive questioning, negative feedback, inappropriate tasks) as less likely to represent mistreatment compared to internal medicine physicians. Physicians from obstetrics and gynecology and from “other” specialties perceived less mistreatment in two scenarios (aggressive questioning, negative feedback) while family physicians perceived more mistreatment in one scenario (negative feedback) compared to internal medicine physicians. The

mean severity of perceived mistreatment on a 1 to 7 scale (7 most serious) also varied statistically significantly across the specialties for three scenarios: aggressive questioning (range 4.4-5.4, $P < .001$), ethnic insensitivity (range 5.1-6.1, $P = .001$), and sexual harassment (range 5.5-6.3, $P = .004$).

Conclusions

Specialty was associated with differences in the perception of mistreatment and in the rating of its severity. Further investigation is needed to understand why these perceptions of mistreatment vary among specialties and how to address these differences.

Mistreatment of medical students is a common problem at medical institutions across the globe.¹ The ramifications of mistreatment, which can be personal and/or professional, are not trivial.²⁻⁸ Mistreatment continues into residency training¹ and beyond, even affecting faculty physicians at teaching institutions, where at least 30% report experiencing sexual harassment and 66% have experienced gender bias in professional advancement.⁹ Despite increased awareness of mistreatment, data demonstrate that the perceived incidence and prevalence have remained constant since the 1990s.^{1,2,10,11} Furthermore, over half of 2016 U.S. medical school graduates surveyed (n = 15,232) have indicated they experienced a disconnect between what is explicitly taught about professional behavior and attitudes and what faculty demonstrate during their clinical rotations.¹²

Ogden and colleagues¹³ showed five collaboratively developed trigger videos to internal medicine attending physicians, internal medicine resident physicians, medical students, and nurses to understand how professional role affects perceptions of medical student mistreatment. The themes covered in the videos included sexual harassment, aggressive questioning, negative feedback/belittlement, ethnic insensitivity, and assignment of inappropriate tasks. This project was known as the Perceived Abuse of Medical Students or PAMS Study.

Extending upon that prior work,¹³ which was limited to internal medicine, we conducted a multispecialty study at 10 institutions across the United States. Our goal was to better understand how attending and resident physicians in different specialties view mistreatment and its severity, as it is unclear whether different specialties have a shared understanding about this phenomenon—despite its prominence in the hidden curriculum.¹²

Method

Video development

As described previously,¹³ faculty members collaboratively developed five scenarios showing behaviors that could be perceived as mistreatment of medical students. The faculty members chose content to reflect situations representative of those that students have reported in previous studies.^{6,14} The scenarios depicted behaviors directed towards medical students that ranged from mildly improper to clear mistreatment. The scenarios were videotaped and edited by the Woodward Creative Group using facilities and actors at Texas A&M University/Scott and White Memorial Hospital (College Station, Texas). These five trigger videos, each 2 to 4 minutes in length, were created in 2004, with, in part, funding from research grants from the Shadyside Hospital Foundation and Scott and White Hospital (\$40,000.00). Funding for the present multispecialty study was in the form of a seed grant of \$5,000.00 provided by the Alliance for Academic Internal Medicine (Alexandria, Virginia).

The scenario topics (along with brief descriptions) are as follows: (1) aggressive questioning, in which an attending physician critically questions a student during attending rounds; (2) ethnic insensitivity, in which a resident tells a Vietnamese-speaking student to convey sensitive clinical information to a Vietnamese patient; (3) negative feedback/belittlement, in which an attending criticizes a student for a poor patient presentation in the presence of other students; (4) sexual harassment, in which a male resident repeatedly invites a female student to socialize outside the hospital; and (5) assignment of inappropriate tasks, in which a student prepares equipment for a procedure, then is excluded from participating. We used an online file sharing platform (i.e., Box Inc., Redwood City, California) to deliver all the videos to the PAMS investigators.

The Institutional Review Board of the University of South Florida approved this study on July 5, 2016 (Protocol 00023734). The ethical review boards of each of the participating universities also approved the study protocol.

Administration of the survey, the survey tool, and videos

This study was conducted from October 2016 to August 2018 at 10 medical schools across the United States. We recruited participants from 6 specialties:

- internal medicine,
- family medicine,
- obstetrics and gynecology (Ob/Gyn),
- pediatrics,
- psychiatry, and
- general surgery.

We chose these 6 specialties since these are the traditional 6 specialties that medical students are primarily exposed to during their initial clinical year. We also included an “other” category to capture resident and attending physician participants from specialties other than these 6.

Each PAMS investigator (see Supplemental Digital Appendix 1 at

<http://links.lww.com/ACADMED/B140>) served as the site director at their home institution. We

held intervention sessions in a variety of settings, including teaching conferences, morning reports, noon conferences, morbidity and mortality conferences, and grand rounds, to promote adequate exposure and representation from each school. Some participants (n = 40, 6%) completed the study online on their own (i.e., not with others during one of the formal intervention sessions). To ensure uniformity across schools and specialties, we used a mutually agreed upon protocol to run sessions.

At the start of each session, the faculty moderator presented the definition of what constitutes mistreatment or abuse on a PowerPoint slide (version 97-2003, Microsoft, Redmond, Washington). For the purposes of our study (and to be consistent with our prior work¹³), we defined medical student abuse or mistreatment as, “Policies, speech, actions, or behaviors that treat a student in a threatening, intimidating, or otherwise inappropriate manner sufficient enough to adversely affect the student’s learning environment.” The moderator then explained how the session would proceed (participants would provide demographic data, and view and respond to survey questions about five videos). Next participants provided informed consent.

We used Qualtrics (Qualtrics, Provo, Utah) to capture survey responses from all participants. No personal identifiers were collected. We obtained demographic information from each participant, including gender, race, professional role, and whether they had been mistreated as students (“Do you feel that you were mistreated or abused as a medical student? Yes or No”). After providing demographic information, participants watched the first video and responded to a simple yes/no question asking whether they thought the episode demonstrated mistreatment of the medical student. If they responded “No” they were asked to explain their answer. Those who answered “Yes” were asked to complete 13 related questions (see Supplemental Digital Appendix 2 at <http://links.lww.com/ACADMED/B140>) exploring their perception and thoughts of the video. These steps were repeated with the four remaining videos. Participants were not able to change their answers once they said yes or no and after they advanced to the next scenario. The questions about each scenario included multiple-choice items asking if the participant believed the scenario represented mistreatment, what type of mistreatment occurred in the scenario, and the severity of the mistreatment. Participants rated severity on a 7-point unipolar Likert-type scale, with 7 being the most serious and 1 the least. For uniformity and consistency, we used the

same questions, 7-point scale, and format that we used in our original PAMS study.¹³ The survey allowed respondents to rate the severity of mistreatment committed by each possible perpetrator in the video if more than one potential perpetrator was involved. To ensure independent responses, participants did not interact or discuss the scenarios with others until all scenarios were shown and surveys completed. The entire session took 45-50 minutes to complete.

Statistical analysis

We compared nominal variables using Pearson's chi-squared tests. We conducted five separate logistic regression models to assess the relationship between physician specialty and perception of mistreatment for each trigger video, while also adjusting for gender, race, professional role, and previous mistreatment. In logistic regression, a reference group must be chosen for categorical predictors. As such, we chose the reference to be the group with the highest numbers of participants for each categorical predictor (i.e., internal medicine, female, Caucasian, resident, and no prior mistreatment). We compared severity ratings across specialties using the Kruskal-Wallis test, and we have presented these comparisons as means and standard deviations [SDs]. We deemed 5% to be statistically significant. We conducted all analyses at the University of South Florida using SPSS version 24 (SPSS Inc., Chicago, Illinois).

Results

Of the 705 resident and attending physicians approached for the study, 650 (92%) agreed to participate. We have described the participants' demographics in Table 1. The physicians from the other specialties included 32 attending physicians and 42 resident physicians. These 74 included emergency medicine physicians (n = 32), neurologists (n = 16), medicine-pediatrics physicians (n = 9), radiologists (n = 4), and anesthesiologists (n = 3), and others (n = 10). Table 2 details the percentage of each specialty that rated each video scenario as mistreatment.

Specialty and perception of mistreatment

Aggressive questioning. After adjusting for gender, race, professional role, and prior mistreatment, the logistic regression model fitted for the aggressive questioning scenario indicated lower odds of perceiving mistreatment for physicians in surgery (odds ratio [OR] = 0.36 [95% confidence interval or CI], 0.18 to 0.70]; $P = .003$), physicians in ob/gyn (OR = 0.48 [95% CI 0.25 to 0.92]; $P = .027$), and physicians from other specialties (OR = 0.42, [95% CI 0.20 to 0.88]; $P = .021$) compared to physicians in internal medicine (see Table 3).

Negative feedback/belittlement. In the multivariable logistic regression model, family medicine physicians had higher odds of perceiving mistreatment in the negative feedback/belittlement scenario (OR = 2.04 [95% CI 1.18 to 3.53], $P = .011$) compared to internal medicine physicians. In contrast, physicians in ob/gyn (OR = 0.42 [95% CI 0.24 to 0.71], $P = .001$), in other specialties (OR = 0.54 [95% CI 0.30 to 0.99], $P = .049$), and in surgery (OR = 0.46 [95% CI 0.26 to 0.82], $P = .008$) had lower odds of perceiving mistreatment compared to physicians in internal medicine (see Table 3).

Assignment of inappropriate tasks. Physicians in surgery had lower odds of perceiving mistreatment in the assignment of inappropriate tasks scenario compared to internal medicine physicians (OR = 0.25 [95% CI 0.09 to 0.69], $P = .008$; see Table 3).

Ethnic insensitivity and sexual harassment. We detected no statistically significant differences between specialty groups in the ethnic insensitivity or sexual harassment scenarios (see Table 3).

Characteristics other than specialty and the perception of mistreatment

In logistic regression analysis, we detected no statistically significant differences in perception of mistreatment based on gender or ethnicity in each of the 5 scenarios (see Table 3). Attending physicians had lower odds of perceiving mistreatment in the ethnic insensitivity scenario

compared to resident physicians (OR = 0.44 [95% CI 0.25-0.76], $P = .004$). We detected no statistically significant differences between attending and resident physicians in the other four scenarios. Physicians who had experienced prior mistreatment as medical students had higher odds of perceiving mistreatment in the ethnic insensitivity scenario (OR = 2.10 [95% CI 1.04-4.23], $P = .04$) and negative feedback scenario (OR = 1.72 [95% CI 1.20-2.46], $P = .003$) compared to those who had not experienced prior mistreatment. We detected no statistically significant differences in perception between mistreated and non-mistreated physicians in the other three scenarios.

Specialty and the severity of perceived mistreatment

The severity of perceived mistreatment varied considerably across the six specialties for three of the five scenarios (Table 4): aggressive questioning, with the resident as the source of mistreatment with (mean severity ranging from 4.4 to 5.4; $P < .001$); ethnic insensitivity (range 5.1-6.1, $P = .001$); and sexual harassment (range 5.5-6.3, $P = .004$). We did not detect a statistically significant difference in severity rankings for the negative feedback and assignment of inappropriate tasks scenarios.

Discussion

Medical student mistreatment is pervasive,³ and, despite its prevalence, our study demonstrates that physicians from different specialties do not share an understanding of mistreatment as depicted in 5 videotaped scenarios. Physicians in surgical specialties (surgery and ob/gyn), as well as physicians in other specialties, had lower odds of perceiving mistreatment in several of the scenarios compared to internal medicine physicians, whereas family medicine physicians were more likely to perceive mistreatment in one of the scenarios.

Perception of the severity of mistreatment in the trigger videos also varied by specialty. Across the six specialties we studied, we noted statistically significant differences in the perception of severity in the aggressive questioning, ethnic insensitivity, and sexual harassment videos, which were the three least ambiguous examples of mistreatment in the trigger videos. The six specialties rated the severity similarly for the two scenarios that we were the least severe representations of mistreatment (negative feedback and assignment of inappropriate tasks). The observed differences in these perceptions across specialties are potentially important for the training and development of students, residents, allied health professionals, and faculty since even small differences in mistreatment experiences may have cumulative effects. That is, repeated episodes of mistreatment, even if they are minor, can have deleterious personal and professional consequences for the person experiencing the mistreatment.²⁻⁸

Notably, the scenarios now broadly discussed and acknowledged in the United States as workplace-inappropriate (ethnic insensitivity and sexual harassment) were more strongly and consistently recognized as problematic across specialties. The rankings for the more ambiguous mistreatment behaviors of aggressive questioning, negative feedback, and assignment of inappropriate tasks were consistently lower. We are reassured that, overall, physicians in this study rated the videos similarly to participants in our prior study.¹³ That study involved only internal medicine participants and was published in 2005. The consistency of those earlier findings and our current findings suggests physicians' perceptions of mistreatment have not changed from 2005 to the time of our study. Questioning junior colleagues on rounds and in conferences, if done so respectfully, remains a valuable method to promote active learning, dialogue, and discussion.¹⁵ Likewise, physician educators must provide negative feedback to

learners if the goal is to improve their performances; however, educators must strive to find the appropriate time, place, and method for delivering this feedback.¹⁶

In contrast to earlier studies,^{13,17-21} we did not find that gender or race correlated with perceptions of mistreatment among resident and attending physicians. Our findings, showing that professional role and previous mistreatment as a medical student do influence perceptions of mistreatment, do however align with the findings of prior studies.^{13,17-21} These points must be emphasized in career development sessions delivered to all health professionals. Mistreatment is in the eyes, ears, and feelings of the beholder, and, according to our data, both prior experience and professional role can sensitize physicians to more commonly perceive mistreatment or to perceive more severe mistreatment.

Nearly one-third of residents and physicians in our current study reported experiencing previous mistreatment as medical students, which is less than what has been previously described in the literature.^{1,2} Why our participants reported experiencing less mistreatment as students is unclear. We find it interesting that in our study, family medicine physicians perceived more mistreatment in one of the scenarios and collectively reported the highest rate of experiencing mistreatment during medical school, whilst physicians in surgery reported less mistreatment as students and perceived mistreatment less frequently in the trigger videos compared to all other specialties. We hypothesize that participants' experience whilst medical students, as well as their specialty, has influenced their perceptions. Another possibility is that specialty training influences awareness and sensitivity to what constitutes mistreatment; each specialty may have a discrete culture that lead to different expectations. Importantly, we do not know what type(s) of mistreatment the respondents experienced, whether the mistreatment was based upon a demographic characteristic (academic rank, career, gender, race/ethnicity, etc.), how frequently they experienced

mistreatment, or on which clerkships the mistreatment occurred. We will be analyzing our data further to determine how these details may influence perception of mistreatment.

Prior work has shown that mistreatment affects career choice; that is, students avoid specialties where mistreatment occurred.¹⁷ Prior research shows that students report the highest rates of mistreatment in surgery and ob/gyn.^{4,22} In our study, physicians in these two surgical specialties did report perceiving less mistreatment in several of the videos. We wonder whether these differences in perceptions by residents and attending physicians in surgery and ob/gyn can be explained by the self-selection of students who are less likely to perceive mistreatment. Possible explanations for these differences could be that (1) current surgery and ob/gyn residents and physicians were treated differently whilst students (i.e., not mistreated), (2) these physicians were treated the same as students who did perceive mistreatment, yet they did not perceive this as mistreatment, or (3) the perceptions of the physicians changed over time, perhaps acclimating to normative behaviors or cultures within their specialties. Further investigation is needed to characterize why perceptions of mistreatment vary between specialties.

Even though we provided a definition of mistreatment to all attendees at the beginning of each intervention session, our study provides evidence that physicians do not have a shared perception and understanding of what constitutes mistreatment of medical students. Educational efforts that simply discuss mistreatment in general terms and provide statistics do not appear to be the answer since the incidence of mistreatment has not declined after such efforts.¹ The heterogeneity of our participants' responses to questions and perceptions of mistreatment suggests that one root cause of the lack of response to interventions meant to mitigate mistreatment may be the lack of a common language and understanding about what constitutes mistreatment and how others perceive it. Though training was not part of our study protocol,

trigger videos can be used in the education or training of medical students, residents, allied health professionals, and faculty. Such videos provide case-specific, shared examples that can be used to promote dialogue and discussion.²³ Future studies should focus on what methods are the most effective at providing education on and deterring mistreatment. A recent assessment of educational programs to address mistreatment found only low-quality studies.²⁴ To change the culture at institutions, all members of the health care team must engage in open dialogue regarding student mistreatment. One approach to opening dialogue is to use trigger videos during development or training sessions.

We note several limitations to our findings. Our study population was a convenience sample of 650 resident and attending physicians in six medical specialties at 10 medical schools. Because of this convenience sample, our specialty groups were not numerically matched. Moreover, physicians who did not participate in our study may have dissimilar experiences with mistreatment in medical school and/or different viewpoints regarding mistreatment. We chose the six specialties of family medicine, internal medicine, ob/gyn, pediatrics, psychiatry, and surgery because these are the traditional six core clerkships that occur during the third year of medical school. Prior studies have shown that the third year of medical school is the time during which most mistreatment events occur.²⁵ Whether physicians outside of these six specialties have experienced mistreatment similarly or have the same perceptions of mistreatment as those in our study is unclear. Interestingly, our data suggest other specialties may not view mistreatment similarly. We included a group of “other physicians” (n = 74) who attended our sessions, but whose specialties are not among the 6 we chose to examine; they reported similar rates of mistreatment as students, but perceived mistreatment less commonly and less severely in several of the scenarios compared to internal medicine physicians.

In conclusion, specialty was associated with differences in the perception of mistreatment and the rating of its severity as depicted in 5 professionally developed trigger videos. Our data suggest the need to develop mechanisms to promote a shared dialogue regarding what constitutes mistreatment so that every physician and other member of the health care team has a similar understanding about this complex issue and can, in turn, work to end the mistreatment of medical students.

References

1. Fnais N, Soobiah C, Chen MH, et al. Harassment and discrimination in medical training: A systematic review and meta-analysis. *Acad Med.* 2014;89(5):817-827.
2. Frank E, Carrera JS, Stratton T, Bickel J, Nora LM. Experiences of belittlement and harassment and their correlates among medical students in the United States: Longitudinal survey. *BMJ.* 2006;333:682-687.
3. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med.* 1998;73:907-909.
4. Lubitz RM, Nguyen DD. Medical student abuse during third-year clerkships. *JAMA.* 1996;275:414-416.
5. Eckenfels EJ, Daughtery SR, Baldwin DC. A socio-cultural framework for explaining perceptions of mistreatment and abuse in the professional socialization of future physicians. *Ann Behav Sci Med Educ.* 1997;4(1):11-18.
6. Elnicki DM, Curry RH, Fagan M, et al. Medical students' perspectives on and responses to abuse during the internal medicine clerkship. *Teaching and Learning in Medicine.* 2002;14:92-97.
7. Stratton TD, McLaughlin MA, Witte FM, Fosson SE, Nora LM. Does students' exposure to gender discrimination and sexual harassment in medical school affect specialty choice and residency program selection? *Acad Med.* 2005;80:400-408.
8. Cook AF, Arora VM, Rasinski KA, Curlin FA, Yoon JD. The prevalence of medical student mistreatment and its association with burnout. *Acad Med.* 2014;89:749-754.
9. Jagsi R, Griffith KA, Jones R, Perumalswami CR, Ubel P, Stewart A. Sexual harassment and discrimination experiences of academic medical faculty. *JAMA.* 2016;315:2120-2121.

10. Silver HK, Glicken AD. Medical student abuse: Incidence, severity, and significance. *JAMA*. 1990;263:527–532.
11. Richardson DA, Becker M, Frank RR. Assessing medical students' perceptions of mistreatment in their second and third years. *Acad Med*. 1997;72:728–730.
12. Soleymani Lehmann L, Snyder Sulmasy L, Desai, S. Hidden curricula, ethics, and professionalism: Optimizing clinical learning environments in becoming a physician: A position paper of the American College of Physicians. *Ann Intern Med*. 2018;168(7):506-508.
13. Ogden PE, Wu EH, Elnicki MD, et al. Do attending physicians, nurses, residents, and medical students agree on what constitutes medical student abuse? *Acad Med*. 2005;80(10 suppl):S80–S83.
14. Elnicki DM, Linger B, Asch E et al. Multi-institutional research examining student characteristics and student abuse – Patterns of medical student abuse during the internal medicine clerkship: Perspectives of 11 medical students. *Acad Med*. 1999;74(suppl):S99–S101.
15. Detsky SA. The art of pimping. *JAMA*. 2009;301(13):1379-1381.
16. Ende J. Feedback in clinical medical education. *JAMA*. 1983;250(6):777-781.
17. Frank E, Brogan D, Schiffman M. Prevalence and correlates of harassment among US women physicians. *Arch Intern Med*. 1998;158:352–358.
18. Corbie-Smith G, Frank E, Nickens HW, Elon L. Prevalences and correlates of ethnic harassment in the U.S. women physicians' health study. *Acad Med*. 1999;74(6):695–701.
19. Kulaylat AN, Qin D, Sun SX, et al. Aligning perceptions of mistreatment among incoming medical trainees. *J Surg Res*. 2017;208:151–157.

20. Kulaylat AN, Qin D, Sun SX, et al. Perceptions of mistreatment among trainees vary at different stages of clinical training. *BMC Med Educ.* 2017;17:14.
21. Osseo-Asare A, Balasuriya L, Huot SJ, et al. Minority resident physicians' views on the role of race/ethnicity in their training experiences in the workplace. *JAMA Netw Open.* 2018;1(5):e182723.
22. Breed C, Skinner B, Purkiss J, et al. Clerkship-specific medical student mistreatment. *Med Sci Educ.* 2018;28:477–482.
23. Larry-Hurtubise L, Martin B, Gilliland A, Mahan J. To play or not to play: Leveraging video in medical education. *J Grad Med Educ.* 2013;5(1):13–18.
24. Mazer LM, Berekenyei Merrell S, Hasty BN, et al. Assessment of programs aimed to decrease or prevent mistreatment of medical trainees. *JAMA Network Open.* 2018;1(3):e180870.
25. Kassebaum DG, Cutler ER. On the culture of student abuse in medical school. *Acad Med.* 1998;73:1149–1158.

Table 1
Comparison of Demographic Characteristics of Physicians Participating in a Study of the Perception of Medical Student Mistreatment, by Specialty, 2016-2018

Characteristics	Specialty						
	IM, No. (% of 154)	FM, No. (% of 102)	Ob/gyn, No. (% of 134)	Other, No. (% of 74)	Peds, No. (% of 50)	Psych, No. (% of 45)	Surgery, No. (% of 91)
Gender							
Male	79 (51.3)	40 (39.2)	30 (22.4)	39 (52.7)	16 (32.0)	22 (48.9)	53 (58.2)
Female	75 (48.7)	62 (60.8)	104 (77.6)	35 (47.3)	34 (68.0)	23 (51.1)	38 (41.8)
Race							
African American	5 (3.2)	17 (16.7)	7 (5.2)	0	4 (8.0)	2 (4.4)	6 (6.6)
Asian	43 (27.9)	11 (10.8)	15 (11.2)	14 (18.9)	4 (8.0)	5 (11.1)	14 (15.4)
Caucasian	89 (57.8)	55 (53.9)	89 (66.4)	57 (77.0)	36 (72.0)	28 (62.2)	61 (67.0)
Hispanic	12 (7.8)	14 (13.7)	17 (12.7)	3 (4.1)	4 (8.0)	7 (15.6)	6 (6.6)
Other	5 (3.2)	5 (4.9)	6 (4.5)	0	2 (4.0)	3 (6.7)	4 (4.4)
Professional role							
Attending	35 (22.7)	50 (49.0)	48 (35.8)	32 (43.2)	17 (34.0)	19 (42.2)	24 (26.4)
Resident	119 (77.3)	52 (51.0)	86 (64.2)	42 (56.8)	33 (66.0)	26 (57.8)	67 (73.6)
Prior mistreatment							
Yes	50 (32.5)	49 (48.0)	34 (25.4)	20 (27.0)	13 (26.0)	20 (44.4)	17 (18.7)
No	104 (67.5)	53 (52.0)	100 (74.6)	54 (73.0)	37 (74.0)	25 (55.6)	74 (81.3)

Abbreviations: IM, internal medicine; FM, family medicine; Ob/gyn, obstetrics-gynecology; Peds, pediatrics; Psych, psychiatry.

Table 2
Perceived Mistreatment of Medical Students in Trigger Videos, by Specialty, 2016-2018^a

Video scenario	Specialty							<i>P</i> value
	IM	FM	Ob/gyn	Other	Peds	Psych	Surgery	
Aggressive questioning	87.4	91.2	76.9	75.7	88.0	91.1	74.1	< .001
Ethnic insensitivity	90.4	94.1	91.0	83.8	94.0	97.8	85.7	.077
Negative feedback	45.5	63.7	25.4	31.5	58.0	51.1	26.4	< .001
Sexual harassment	90.2	94.1	92.5	85.9	96.0	95.6	89.0	.300
Inappropriate task	18.2	25.5	9.7	9.9	12.0	15.6	5.5	.001

Abbreviations: IM, internal medicine; FM, family medicine; Ob/gyn, obstetrics-gynecology; Peds, pediatrics; Psych, psychiatry.

^aEach cell shows the percentage of respondents answering, “Yes, demonstrated mistreatment.”

Table 3

Results of Logistic Regression Assessing Relationship Among Specialty, Personal Characteristics, and Perception of Medical Student Mistreatment in Videos, 2016-2018

Charac- teristics	Aggress Q	P	95% CI	Ethnic Insen	P	95% CI	Neg FB	P	95% CI	Sexual Harass	P	95% CI	Inapp Task	P	95% CI	
Specialty																
IM	Reference															
FM	1.23	.64	0.52, 2.92	1.97	.20	0.70, 5.60	2.04	.011	1.18, 3.53	1.63	.36	0.57, 4.61	1.47	.25	0.76, 2.87	
Ob/Gyn	.48	.027	0.25, 0.92	1.20	.68	0.51, 2.81	.42	.001	0.24, 0.71	1.25	.62	0.51, 3.09	.50	.07	0.24, 1.05	
Other	.42	.021	0.20, 0.88	.64	.30	0.27, 1.49	.54	.049	0.30, 0.99	.71	.45	0.29, 1.74	.47	.10	0.19, 1.17	
Peds	1.02	.98	0.38, 2.75	1.86	.35	0.50, 6.96	1.70	.12	0.87, 3.32	2.43	.26	0.52, 11.37	.63	.36	0.24, 1.68	
Psych	1.32	.64	0.42, 4.16	5.54	.11	0.69, 44.31	1.19	.62	0.60, 2.37	2.56	.23	0.55, 12.03	.77	.58	0.30, 1.95	
Surgery	.36	.003	0.18, 0.70	.72	.42	0.31, 1.63	.46	.008	0.26, 0.82	.88	.77	0.36, 2.13	.25	.008	0.09, 0.69	
Gender																
Female	Reference															
Male	1.17	.50	0.75, 1.81	.82	.49	0.47, 1.45	.98	.90	0.69, 1.39	.66	.17	0.36, 1.20	1.35	.22	0.84, 2.19	
Race																
Caucasian	Reference															
African American	1.63	.38	0.54, 4.89	.79	.72	0.22, 2.83	.73	.38	0.36, 1.49	1.01	.99	0.89, 1.21	1.03	.96	0.39, 2.70	
Asian	.74	.29	0.42, 1.30	.93	.86	0.44, 2.00	.82	.42	0.51, 1.32	.92	.83	0.42, 2.02	1.18	.62	0.61, 2.29	
Hispanic	.95	.90	0.45, 2.01	.89	.83	0.33, 2.44	.81	.48	0.45, 1.46	.52	.13	0.22, 1.21	1.62	.19	0.79, 3.33	
Other	.57	.27	0.21, 1.54	.37	.10	0.11, 1.19	.75	.52	0.31, 1.81	.85	.83	0.19, 3.83	1.76	.30	0.61, 5.11	
Profess role																
Resident	Reference															
Attending	1.22	.39	0.77, 1.94	.44	.004	0.25, 0.76	.98	.92	0.69, 1.40	.82	.52	0.45, 1.49	1.39	.18	0.86, 2.26	
Prior mist																
No	Reference															
Yes	1.59	.07	0.96, 2.62	2.10	.04	1.04, 4.23	1.72	.003	1.20, 2.46	.98	.96	0.52, 1.86	.90	.68	0.54, 1.49	

Abbreviations: Aggress Q, aggressive questioning; CI; confidence interval; Ethnic Insen, ethnic insensitivity; Neg FB, negative feedback; Sexual Harass, sexual harassment; Inapp Task, inappropriate task; IM, internal medicine; FM, family medicine; Ob/gyn, obstetrics-gynecology; Peds, pediatrics; Psych, psychiatry.

Table 4
Comparison of Perceived Severity of Medical Student Mistreatment, by Specialty, 2016-2018

Video scenario	Specialty							Kruskal-Wallis <i>P</i> value
	IM, Mean (SD)	FM, Mean (SD)	Ob/gyn, Mean (SD)	Other, Mean (SD)	Peds, Mean (SD)	Psych, Mean (SD)	Surgery, Mean (SD)	
Aggressive questioning	4.8 (1.3)	5.1 (1.3)	4.4 (1.4)	4.5 (1.5)	5.4 (1.1)	4.9 (1.2)	4.4 (1.4)	< .001
Ethnic insensitivity								
Resident as the source of mistreatment	5.7 (1.2)	5.9 (1.2)	5.4 (1.5)	5.1 (1.5)	6.1 (1.0)	5.5 (1.4)	5.7 (1.1)	.001
Intern as the source of mistreatment	5.7 (1.3)	5.6 (1.3)	5.5 (1.5)	5.1 (1.7)	6.0 (1.1)	5.7 (1.3)	5.7 (1.3)	.138
Negative feedback	4.0 (1.6)	4.0 (1.8)	3.7 (1.6)	4.2 (1.4)	4.4 (1.7)	3.8 (1.8)	3.9 (1.8)	.768
Sexual harassment	6.3 (0.9)	5.9 (1.4)	6.0 (1.2)	5.5 (1.3)	6.3 (1.0)	6.1 (0.9)	6.0 (1.0)	.004
Inappropriate task								
Resident as the source of mistreatment	3.3 (1.6)	3.3 (2.0)	2.7 (1.2)	3.7 (1.2)	2.3 (1.5)	3.5 (1.0)	3.7 (2.5)	.861
Intern as the source of mistreatment	3.6 (1.5)	2.6 (1.6)	3.4 (0.9)	3.0 (1.4)	4.5 (1.9)	3.8 (0.8)	2.3 (1.3)	.131

Abbreviations: IM, internal medicine; FM, family medicine; Ob/gyn, obstetrics-gynecology; Peds, pediatrics; Psych, psychiatry; SD, standard deviation.