

Experiences of belittlement and harassment and their correlates among medical students in the United States: longitudinal survey

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Abstract

Objective To determine medical students' perceptions of having been harassed or belittled and their correlates, for the purposes of reducing such abuses.

Design Longitudinal survey.

Setting 16 nationally representative US medical schools.

Participants 2884 students from class of 2003.

Main outcome measures Experiences of harassment and belittlement at freshman orientation, at entry to wards, and in senior year by other students, by residents or fellows, by preclinical professors, by clinical professors or attendings, or by patients.

Results 2316 students provided data (response rate 80.3%). Among seniors, 42% (581/1387) reported having experienced harassment and 84% (1166/1393) belittlement during medical school. These types of abuse were caused by other students (11% (158/1389) and 32% (443/1390) of students experienced such harassment or belittlement, respectively). Harassment and belittlement was also caused by residents (27% (374/1387) and 71% (993/1393)), preclinical professors (9% (131/1386) and 29% (398/1385)), clinical professors (21% (285/1386) and 63% (878/1390)), and patients (25% (352/1387) and 43% (592/1388)). Only 13% (181/1385) of students classified any of these experiences as severe. Medical students who reported having been harassed or belittled did not differ significantly from those not reporting such experiences by sex, ethnicity, political orientation, or religion. They did differ significantly by chosen specialty and were significantly more likely to be stressed, depressed, and suicidal, to drink alcohol or to binge drink, and to state that their faculty did not care about medical students. They were also significantly less likely to be glad they trained to become a doctor.

Conclusion Most medical students in the United States report having been harassed or belittled during their training. Although few students characterised the harassment or belittlement as severe, poor mental health and low career satisfaction were significantly correlated with these experiences.

Introduction

Although copious literature examines the harassment of medical students,^{w1-w21} few recent studies in both sexes have investigated the extent of these broad and ever changing phenomena. We hypothesised that such experiences are relatively common and extend beyond sexual harassment and that the consequences are both personal and professional.

Methods

All students in the class of 2003 at 16 US medical schools were given a questionnaire at freshman orientation, entry to wards, and senior year. The overall response rate was 80.3%. Our sampling frame was designed to be representative of US medical schools for several variables (see bmj.com).

In the second and third questionnaires, students responded to 10 separate questions asking whether they had been harassed or belittled during medical school (never, some, severely) by other students, residents or fellows, preclinical professors, clinical professors or attendings (clinical supervisors), or patients. We collapsed the categories for "some" and "severely" into one category owing to small numbers.

We cross tabulated each of the 10 questions with students' demographic characteristics, questions on mental health (see bmj.com), and perceived environment or attitudinal items (strongly agree to strongly disagree, see bmj.com). We carried out χ^2 tests and determined P values. As a result of the cumulative nature of the harassment and belittlement questions, we used only the data for senior years in the bivariate analyses. We also queried political orientation (on a five point scale from very liberal to very conservative) and religion.

We carried out two global tests of significance for the overall relation between current depressive state and perception of the school environment with experiences of harassment and belittlement. The models were run utilising linear regression with repeated measures over entry to wards and senior year. Each test, one for all sources of harassment and one for all sources of belittlement, enabled us to examine whether the variables for depression and school environment were significantly related to any of the sources of harassment or belittlement after controlling for depressive state at entry to medical school, sex, ethnicity, marital status, and time point. We analysed data using generalised estimating equations¹⁻³ with a logit link function to provide the global test. This explicitly tests for effect in all outcome measures in the harassment and belittlement groups. To account for the clustering of students within schools we used the Multilog procedure with SAS callable SUDAAN. Time was incorporated with a single indicator variable. We specifically investigated two time points to examine the changes in harassment and belittlement throughout medical school.



References w1-w21 are on bmj.com



This is the abridged version of an article that was posted on bmj.com on 6 September 2006: <http://bmj.com/cgi/doi/10.1136/bmj.38924.722037.7C>

Results

At entry to wards, 8% (129/1553) of medical students reported having been harassed by residents or fellows, 8% (124/1550) by clinical professors or attendings, and 10% (161/1556) by patients compared with 27% (374/1387), 21% (285/1386), and 25% (352/1387) of students in their senior year (figure). At entry to wards, 28% (434/1552) of students reported having been belittled by residents or fellows, 32% (498/1546) by clinical professors or attendings, and 22% (335/1556) by patients compared with 71% (993/1393), 63% (878/1390), and 43% (592/1388) of students in their senior year. Rates of harassment and belittlement by students and preclinical professors did not change significantly between these two time points. In their senior year, 11% (158/1389) of students reported ever having been harassed by other students and 9% (131/1386) by preclinical professors; 32% (443/1390) had been belittled by students and 29% (398/1385) by preclinical professors. Overall, 42% (581/1387) of students who returned the survey in the senior year reported having ever been harassed by any of the five groups (other students, residents or fellows, preclinical professors, clinical professors or attendings, or patients), 84% (1166/1393) indicated ever having been belittled, 85% (1182/1385) reported ever having been harassed or belittled, and 40% (556/1385) had experienced both. Only 13% (181/1385) of students classified any of these experiences as severe (data not shown).

Across groups, sex was marginally significant only for harassment by preclinical professors (11% (83/736) men *v* 7% (47/648) women, $P=0.04$; see [bmj.com](#)). Ethnicity differed significantly only for harassment by preclinical and clinical professors or attendings.

Statistically significant relations between specialty and harassment or belittlement existed across most groups; however, no one specialty was especially associated with students being most often harassed or belittled. Students intending to specialise in family medicine were, however, among three specialties reporting the highest incidence of harassment by residents or fellows (32%, 36/111), clinical professors or attendings (30%, 33/111), and patients (29%, 32/112), and the highest incidence of belittlement by students

(38%, 42/112), residents or fellows (75%, 85/113), and clinical professors or attendings (69%, 78/113).

Although no significant relations were observed between clinically diagnosed depression and harassment (see [bmj.com](#)), higher rates of belittlement by students, resident or fellows, and clinical professors or attendings were reported by students stating previous clinical depression (see [bmj.com](#)). Having been harassed by residents or fellows or by clinical professors or attendings, or having been belittled by other students, clinical professors or attendings, or patients were all significantly associated with ever having attempted suicide (data not shown). Higher rates of harassment and belittlement were observed across all groups reporting suicidal ideations in the past year. Students who reported feeling blue most or all of the time averaged greater than 40% more harassment and belittlement than did students who reported not having felt blue at all in the past four weeks. Stress in the past 12 months was significantly related to nearly all sources of harassment and belittlement.

Alcohol consumption was significantly correlated with all sources of harassment and belittlement, except belittlement by residents or fellows and by patients. Those who reported frequent binge drinking reported the highest rates of harassment and belittlement.

Negative attitudes towards students by faculty members were directly associated with reported harassment and belittlement by all groups, except patients. Students' confidence in their career decisions was inversely associated with harassment and belittlement across nearly all groups (see [bmj.com](#)).

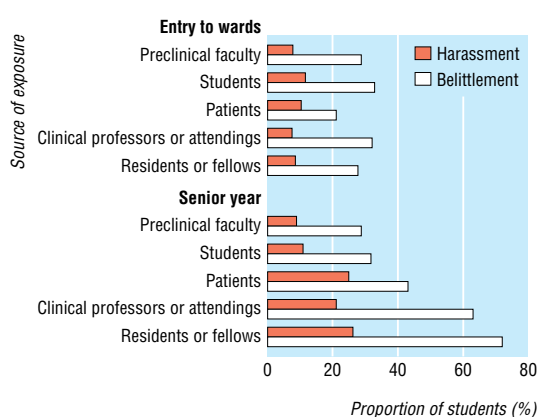
After controlling for sex, ethnicity, marital status, having felt blue in the past four weeks at orientation, and time, both harassment and belittlement (see [bmj.com](#)) were significantly related to having felt blue in the past four weeks, career satisfaction, and belief that the faculty cares about the medical students.

Discussion

Levels of belittlement and harassment are high among medical students in the United States: 40% of senior students had been harassed and 84% had been belittled. Some of these experiences were caused by other students and preclinical professors, but most commonly by residents, clinical professors, and patients.

Eighty one per cent of seniors surveyed at one school in the 1980s reported being abused; 69% of those abused reported at least one episode as of "major importance and very upsetting."^{7,8} Although only 13% of students in this study classified any experiences as severe, many serious correlates were professional and personal. Those who reported harassment or belittlement from any source were consistently and substantially less likely to be glad they chose to become a doctor. They also reported lower feelings of control, less overall satisfaction with life, and felt unmentored and that their faculty did not care about them.

Students specialising in family medicine reported higher levels of harassment and belittlement. The reported prevalence of abusive behaviour in family medicine has tended to be lower than in other disciplines.^{9,10} Since humanism,⁴ counselling skills,⁵ and high levels of psychosocial involvement⁶ may be



Proportion of medical students experiencing harassment or belittlement at entry to wards or in senior year

particularly important to family medicine, students may be more attuned to mistreatment or perceive a broader range of behaviours as harassing or belittling. Alternatively they may have chosen family medicine as a reaction to harassment or belittlement encountered elsewhere, or experiences in family medicine may now be different.

A smaller proportion of students from ethnic minorities reported harassment from their professors than did white students (with the exception of those classified as Native American or "other"). In the women physicians' health study (n = 4501), whereas ethnically based harassment was higher in under-represented minorities,⁷ Asian women doctors were least likely to report sexual or gender based harassment, and rates in black and Hispanic students were comparable to those in white students.⁸

Given that previous research has documented a higher prevalence of harassing and discriminatory behaviours towards women medical students,^{w8 w14 w16-w18} the absence of a significant sex effect in our study is noteworthy. However, studies that have examined more general mistreatment or abuse among medical students have found far less disparity between sexes,^{w2 w5} and that sex based differences mainly occur for sexual harassment.^{w19} The lack of consistent, significant differences between the sexes in our sample probably results from students responding to incidents involving a range of dysfunctional practices than just sexual or gender based harassment.

Although students with psychopathology may perform or perceive differently from other students, ours and others' data suggest that abusive behaviour, especially by authority figures, contributes to poor mental health. The women physicians' health study showed significantly more frequent histories of depression and suicide attempts among doctors who had experienced gender based or sexual harassment.⁸ A longitudinal cohort study of 137 medical students found that abuse was significantly related to most psychopathological outcomes, after controlling for pre-existing psychopathology.^{w21}

Although few students believed that the incidents they had experienced were severe, the effects were personally and professionally significant. If students are to

What is already known on this topic

Most of the large scale studies on harassment and belittlement of US medical students have been cross sectional and of limited generalisability

What this study adds

Most medical students in the United States report having been harassed or belittled during their training

Poor mental health and low career satisfaction are significantly associated with being harassed or belittled

learn to behave ethically with colleagues and patients, we ourselves need to behave in an ethically appropriate and sensitive way.

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A memorable patient

Just following advice



The Drakensberg are beautiful and imposing mountains that separate the plains in South Africa from Lesotho on the high plateau. We were on a three day hike when, just below Cleft Peak at a height of 3000 metres (10 000 feet), we came across an elderly "gogo" (Zulu for "granny," a respectful term for an elderly woman widely used in southern Africa) slowly making her way up into Lesotho, bent almost double and carrying her shoes so as not to wear them out. She was heading back to her village, having walked down the mountain to go to the clinic in Estcourt (1200 metres, 3900 feet). Her presenting complaint? Shortness of breath and a sore knee. We couldn't help wondering whether this trek was what the doctor had in mind when he'd advised her to go home and rest.

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