# Letters

RESEARCH LETTER

PHYSICIAN WORK ENVIRONMENT AND WELL-BEING

## Prevalence of Sexual Harassment in Academic Medicine

Sexual harassment is a form of gender discrimination that affects women and men in all areas of work.[1] According to the International Labour Organization (ILO), sexual harassment can occur in 1 or more of 3 forms: verbal, nonverbal, or physical.[1]

Related article

Sexual harassment can lead to physical and psychological symptoms and diseases as well as work-related consequences.[2,3] The prevalence of sexual harassment in medicine has been scantily investigated, and reports differ widely in the applied methodology.

**Methods** | All physicians working at a tertiary referral center in Berlin, Germany (n = 1862) were invited to participate in the survey for the current study between May 2015 and July 2015. This investigation was explicitly and solely designed to investigate sexual harassment. Institutional ethical approval (EA1/350/14, December 15, 2014) was obtained from Charité–Universitätsmedizin as well as from the employee representations/staff councils (clinical, academic and general), and all participants provided their written informed consent.

The survey instrument consisted of 36 items. It was administered online using the survey tool SoSci Survey (SoSci Survey GmbH). We investigated the following: (1) forms of misconduct experienced and whether these were considered harassing or threatening (note that not all misconduct was interpreted as harassment), (2) consequences experienced, (3) perpetrator profiles, (4) structural and organizational information, and (5) training and knowledge about sexual harassment, and (6) assumptions about its causes. Several questions about the type of misconduct or harassment experienced, the perpetrator profiles, and the consequences experienced were adapted from previous studies in German-speaking countries.[4,5]

We computed descriptive statistics for sociodemographic and prevalence data. Prevalence and perpetrator profiles were compared bivariately between women and men using the Pearson $\chi^2$ test. Multivariate regressions were calculated for structural factors using harassment patterns (any form, physical, nonphysical) as outcomes. We included only those participants who provided information on all investigated variables. All analyses were 2-sided, and $P < .05$ was considered significant. We performed all analyses using STATA software, version 13 (StataCorp LLC).

**Results** | A total of 790 physicians participated in the study (42% overall response rate), but 47 did not provide detailed infor-

Table 1. Experiences of Sexual Harassment Among Participating Physicians

| Career Harassment and Misconduct Experiences[a] | Participants, No. (%) | | | |
|---|---|---|---|---|
| | Total (n = 737) | Women (n = 448) | Men (n = 289) | *P* Value |
| Any form | 519 (70.04) | 341 (76.12) | 178 (61.59) | <.001 |
| Degrading speech/obscene language[b] | 456 (61.87) | 297 (66.29) | 159 (55.02) | .002 |
| Letter, email, text message, jokes, pictures[b] | 44 (5.97) | 21 (4.69) | 23 (7.96) | .07 |
| Sexualized speech, sexual innuendo[b] | 185 (25.1) | 145 (32.37) | 40 (13.84) | <.001 |
| Whistling, staring[b] | 96 (13.03) | 89 (19.87) | 7 (2.42) | <.001 |
| Obscene gestures[b] | 39 (5.29) | 24 (5.36) | 15 (5.19) | .92 |
| Stories with sexual content[b] | 109 (14.79) | 79 (17.62) | 30 (10.38) | .01 |
| Sexual offers, unwanted invitations[b] | 53 (7.19) | 40 (8.93) | 13 (4.5) | .02 |
| Unwanted physical contact[c] | 127 (17.23) | 100 (22.32) | 27 (9.34) | <.001 |
| Groping, attempted kissing[c] | 16 (2.17) | 13 (2.9) | 3 (1.04) | .09 |
| Advantages for sexual favors | 11 (1.49) | 9 (2.01) | 2 (0.69) | .15 |
| Sexual attack[c] | 4 (0.54) | 2 (0.45) | 2 (0.69) | .66 |
| Other situations | 15 (2.04) | 11 (2.46) | 4 (1.38) | .32 |
| None of the above | 218 (29.58) | 107 (23.88) | 111 (38.41) | <.001 |
| Perceived the nonphysical misconduct as harassing (n = 492) | 373 (75.8) | 270 (83.3) | 103 (61.3) | <.001 |
| Perceived the nonphysical misconduct as threatening (n = 491) | 59 (12) | 49 (15.2) | 10 (6) | .003 |
| Perceived the physical misconduct as harassing (n = 132) | 117 (88.6) | 95 (93.1) | 22 (73.3) | .003 |
| Perceived the physical misconduct as threatening (n = 131) | 36 (27.5) | 31 (30.7) | 5 (16.7) | .13 |

[a] Multiple answers were accepted.
[b] Summarized as nonphysical misconduct or harassment.
[c] Summarized as physical misconduct or harassment.

Table 2. Perpetrator-Related and Structural Factors Correlated With Harassment Experiences

| Characteristic | Harassed Individuals, No. (%) | | | | | |
|---|---|---|---|---|---|---|
| | Female (n = 333) | | | Male (n = 168) | | |
| | Any Form | Nonphysical | Physical | Any Form | Nonphysical | Physical |
| **Perpetrator Characteristics[a]** | | | | | | |
| Mostly male | 287 (86.2)[b] | 272 (85.5)[b] | 96 (95.1)[b] | 63 (37.5)[b] | 63 (38.4)[b] | 4 (13.3)[b] |
| Mostly female | 1 (0.3)[b] | 1 (0.3)[b] | 0 | 32 (19.1)[b] | 28 (17.1)[b] | 18 (60)[b] |
| Both male and female | 45 (13.5)[b] | 45 (14.1)[b] | 5 (5)[b] | 73 (43.5)[b] | 73 (44.5)[b] | 8 (26.7)[b] |
| Patients[c] | 111 (32.6) | 111 (34.2)[d] | 39 (38.2) | 45 (25.3) | 43 (25.6)[d] | 13 (43.3) |
| Relatives of patients[c] | 37 (10.9) | 36 (11.1) | 14 (13.7) | 14 (7.9) | 14 (8.3) | 3 (10) |
| Colleagues[c] | 242 (71)[d] | 237 (73.2)[e] | 68 (66.7) | 143 (80.3)[d] | 141 (83.9)[e] | 24 (80) |
| Superiors[c] | 127 (37.2)[b] | 120 (37)[b] | 61 (59.8)[b] | 32 (18)[b] | 31 (18.5)[b] | 3 (10)[b] |
| **Structural Characteristics[f]** | | | | | | |
| | Female Participants (n = 370) | | | Male Participants (n = 189) | | |
| | Any Form | Nonphysical | Physical | Any Form | Nonphysical | Physical |
| Employment duration [≤5 years] | 0.8 (0.5-1.3) | 0.8 (0.5-1.2) | 0.8 (0.5-1.2) | 0.5 (0.2-0.9) | 0.4 (0.2-0.8) | 0.3 (0.2-0.9) |
| *P* value | .40 | .30 | .30 | .02 | .01 | .05 |
| Immediate team size [≥11 people] | 1.4 (0.8-2.3) | 1.4 (0.8-2.3) | 1.2 (0.8-2.1) | 1.0 (0.5-2.0) | 1.0 (0.6-2.0) | 1.8 (0.6-5.1) |
| *P* value | .20 | .20 | .40 | .90 | .90 | .30 |
| Institute/department size [≥41 people] | 0.9 (0.5-1.4) | 0.9 (0.5-1.4) | 0.9 (0.5-1.4) | 0.7 (0.4-1.4) | 0.9 (0.5-1.8) | 0.7 (0.2-1.9) |
| *P* value | .60 | .60 | .60 | .40 | .80 | .50 |
| Sex distribution team [mostly men] | 1.5 (0.8-2.9) | 1.8 (0.9-3.6) | 0.7 (0.4-1.4) | 1.6 (0.7-4.0) | 1.7 (0.7-4.3) | 2.3 (0.7-7.2) |
| *P* value | .20 | .07 | .40 | .30 | .20 | .20 |
| Sex of team leader [man] | 1.4 (0.9-2.4) | 1.6 (0.9-2.6) | 0.9 (0.5-1.5) | 1.0 (0.4-2.2) | 0.9 (0.4-1.9) | 1.4 (0.4-5.1) |
| *P* value | .20 | .08 | .60 | >.99 | .70 | .60 |
| Sex of department leader [man] | 0.7 (0.4-1.3) | 1.0 (0.6-1.7) | 0.7 (0.4-1.1) | 1.5 (0.7-3.2) | 1.4 (0.7-3.0) | 2.2 (0.6-8.6) |
| *P* value | .30 | .90 | .10 | .30 | .30 | .20 |
| Hierarchy [strong hierarchy] | 1.3 (0.8-2.0) | 1.3 (0.8-2.0) | 1.9 (1.1-3.1) | 2.3 (1.2-4.4) | 2 (1-3.8) | 2.6 (0.9-7.3) |
| *P* value | .60 | .30 | .01 | .01 | .04 | .06 |
| Knowledge of available recourse inside the hospital [no knowledge] | 0.7 (0.4-1.3) | 0.7 (0.4-1.3) | 0.8 (0.4-1.4) | 1.3 (0.6-2.9) | 1.5 (0.7-3.2) | 1.1 (0.3-3.5) |
| *P* value | .30 | .30 | .40 | .50 | .30 | .90 |
| Knowledge of available recourse outside the hospital [no knowledge] | 1.4 (0.8-2.5) | 1.2 (0.7-2.2) | 1.4 (0.8-2.6) | 0.7 (0.3-1.7) | 0.9 (0.4-2.1) | 0.8 (0.2-3.0) |
| *P* value | .30 | .50 | .20 | .50 | .80 | .80 |
| Ever had formal anti-harassment training [never had training] | 1.0 (0.5-2.2) | 1.0 (0.5-2.2) | 0.7 (0.3-1.5) | 1.6 (0.6-4.3) | 1.5 (0.5-4) | 2.5 (0.4-14) |
| *P* value | .90 | .90 | .40 | .40 | .40 | .30 |

Abbreviation: OR, odds ratio.

[a] Perpetrator characteristics are expressed as absolute values (percentages) and have been analyzed as female-male bivariate comparisons using the Pearson $\chi^2$ test.

[b] $P < .001$.

[c] Multiple answers accepted.

[d] $P < .05$.

[e] $P < .01$.

[f] Structural factors are expressed as OR (95% CI) and have been analyzed segregated by sex using multivariate models adjusted for all presented covariables. Reference outcomes are reported in brackets.

mation; 2 did not provide information on sex; and 4 (1%) self-reported as transgender, intersex, or nonbinary. The low number of individuals self-reporting other than distinct male or female gender prevented statistical testing of this category, but it should be noted that all 4 of these participants (100%) reported experiencing some form of harassment. Of the 737 participants included in the full analysis, 60% were women (n = 448), and 39% were men (n = 289).

All of the absolute numbers for the following reports can be found in **Table 1**. Among all male and female participants, 70% reported some form of misconduct while performing their work. The most common form self-reported as harassment was verbal harassment (including degrading speech [62%] and sexualized speech [25%]). Nonphysical misconduct was perceived as harassing by 76% of the individuals, more frequently by women than by men (83% vs 61%; $P < .001$). Physical misconduct was perceived as harassing by 89% of those reporting such misconduct and as threatening by 28%, with no significant sex differences (Table 1).

Women reported the perpetrators of harassment to be almost exclusively male, both for nonphysical harassment (85% of perpetrators against women compared with 38% of perpe-

trators against men; $P < .001$) (**Table 2**) and for physical harassment (95% of perpetrators against women compared with 13% of those against men; $P < .001$) (Table 2). Colleagues were reported as the main perpetrators at similar rates by men and women, while women reported superiors to be the perpetrators more frequently (37% vs 18%; $P < .001$) (Table 2).

Strong departmental or divisional hierarchy appeared as the only structural factor significantly associated with harassment in both male and female victims (all supporting data reported in Table 2).

**Discussion** | Sexual harassment frequently affects female and male physicians during their careers. In the present study, both groups reported verbal harassment as the most frequent form of misconduct. While perpetrator patterns differed between male and female victims, strong institutional hierarchies were associated with sexual harassment in both sexes, highlighting the importance of organizational culture.[6] These results support the need for cultural change in the form of structural and widespread action to truly reduce the high incidence of sexual harassment in academic medicine.

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