

Medical education too: sexual harassment within the educational context of medicine – insights from undergraduates

Eva Schoenefeld (✉ eva.schoenefeld@ukmuenster.de)

University of Münster <https://orcid.org/0000-0001-9710-3767>

Bernhard Marschall

Westfälische Wilhelms-Universität Münster

Berit Paul

Westfälische Wilhelms-Universität Münster Fachbereich 05 Medizinische Fakultät

Helmut Ahrens

Westfälische Wilhelms-Universität Münster Fachbereich 05 Medizinische Fakultät

Janina Sensmeier

Westfälische Wilhelms-Universität Münster Fachbereich 05 Medizinische Fakultät

Jan Coles

Monash University Faculty of Medicine Nursing and Health Sciences

Bettina Pfeleiderer

Westfälische Wilhelms-Universität Münster Fachbereich 05 Medizinische Fakultät

Research article

Keywords: sexual harassment, gender inequalities, discrimination, undergraduate education

Posted Date: July 16th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-26440/v2>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

Version of Record: A version of this preprint was published on February 1st, 2021. See the published version at <https://doi.org/10.1186/s12909-021-02497-y>.

Abstract

Background: Assessment of the presence and the characteristics of sexual harassment in academic medicine is a global issue. Only limited international data are available so far.

Methods:

Aim: To assess the extent of sexual harassment and to identify the perpetrators in the student population of the medical school of Münster, Germany.

A survey was undertaken, using the Medical Womens' International Association sexual harassment questionnaire translated into German. The anonymous online questionnaire was sent as a link to all medical undergraduates at Münster Medical School via a mailing list between 1st October and the 30th November 2018. Identifying and potentially identifying data was not collected.

Data were analyzed by descriptive statistical methods such as categorical variables. Baseline characteristics, e.g. answers by male or female medical students, were correlated with their individual sexual harassing experiences and perpetrator groups by means of univariate analysis.

Results: A total of 2162 medical students were asked to participate: 623 (28.8%) completed the survey. Sexual harassment is a significant issue among medical students at Münster, with 87.6% of female students experiencing some verbal and /or physical sexual harassment. The majority of perpetrators were patients, followed by medical superiors and educators, and less frequently by colleagues. All students who had experiences with forced sexual contact were females. Over half (58.9%) of all undergraduates were exposed to sexually harassing behaviour: 41.3% of those suffered from verbal harassment and 31.8% from unwanted physical sexual contact such as e.g. unwanted physical touch, while 8.5% of faced forced sexual contact e.g. such as oral, anal or vaginal penetration, intercourse and rape. Perpetrators were mostly male medical superiors (7.0%) and male patients (18.3%).

Conclusions: Sexual harassment in medical education and the medical working place are a significant problem in a German medical school. The majority of students experiencing sexual harassment are females. Female students also experience the more serious forms of sexual harassment more often.

Background

This study investigates the presence of sexual harassment among undergraduate medical students in a German medical school. The World Health Organization (WHO) definition of sexual harassment was used: Sexual harassment means any unwelcome sexual advance, request for sexual favours, or other verbal or physical conduct of a sexual nature, when it interferes with work, is made a condition of employment, or creates an intimidating, hostile or offensive work environment ¹.

Sexual harassment results in physical and psychological sufferings ¹⁻⁶ such as depression, social isolation, fear and associated cardiovascular symptoms. Four of ten female physicians from the U.K. reported similar

findings⁷⁻⁸ and physicians at the Charité in Berlin (Germany) further corroborated this⁹. Moreover, when sexually harassment occurred it was often not reported¹⁰⁻¹¹.

The goal of our study was to assess sexual harassment in undergraduates at the medical school in Münster, Germany, where 60 to 70% of medical students being female. Münster medical school is one of the largest in Germany. Confronting individual stories of sexual harassment in Münster was the driver for this study. A questionnaire on this topic was conducted among medical undergraduates to better describe the problem with baseline data to assist and inform future educational practice and policy.

Methods

A validated sexual harassment questionnaire in the medical working environment is not available in German speaking countries. We translated an international questionnaire from the Medical Women's Medical Association (MWIA) into German¹². MWIA drafted the questionnaire for their own global survey in 2017. The MWIA study and questionnaire used was approved by the Monash University Human Research Ethics Committee, Melbourne, Australia (Project ID 10064) and was designed by an international team on experts in medical education led by Prof. Jan Coles. The German version of questionnaire was anonymous and collected no identifying or potentially identifying personal data, for this reason Human Research Ethics Committee approval was not required after discussion with the local ethics panel.

The German questionnaire was distributed via a mailing list of all our medical students as a link. We started, after asking for the gender affiliation, with the definitions and the legal aspects concerning sexual harassment and bullying as well as equality under public law in Germany. The definition of sexual harassment was in accordance with the WHO definition outlined in the introduction. We also applied definitions from the German Penal code. The Penal Code in Germany starts with an anti-discrimination statement¹⁷:

1. Prohibition of Discrimination Under Civil Law

1. Any discrimination on the grounds of race or ethnic origin, sex, religion, disability, age or sexual orientation shall be illegal when founding, executing or terminating civil-law obligations¹⁶, and further refers to employer and employee duties and rights.

2. Penal Law: Enforcement

- (1) Where a breach of the prohibition of discrimination occurs, the disadvantaged person may, regardless of further claims being asserted, demand that the discriminatory conduct be stopped. Where other discrimination is to be feared, he or she may sue for an injunction.

- (2) Where a violation of the prohibition of discrimination occurs, the person responsible for committing the discrimination shall be obligated to compensate for any damage arising therefrom. This shall not apply where the person committing the discrimination is not responsible for the breach of duty. The person

suffering discrimination may demand appropriate compensation in money for the damage, however not for economic loss.

(3) Claims in tort shall remain unaffected.

(4) The person responsible for committing the discrimination shall not be permitted to refer to an agreement which derogates from the prohibition of discrimination.

(5) Any claims arising from Subsections (1) and (2) must be asserted within a period of two months. After the expiry of the time limit the claim may only be asserted when the disadvantaged person was prevented from meeting the deadline through no fault of their own.

A total of 2162 medical students, 1427 female, at the Westfalian University of Münster were asked to participate deliberately and anonymously in the online survey between 10th October and 30th November 2018.

The survey is divided into two sections: one contained 10 statements on general and individual experiences and different forms of sexual harassment, including verbal and sexual contact, and forced physical sexual contact. The second section detailed the frequencies of specific sexual harassment experiences and perpetrator groups. Each part finished with a free text option on personal narratives, consequences and ideas for intervention.

Inclusion criterion was completed anonymous data set. Incompletely answered surveys were excluded.

Demographic data were solely gender affiliation. Agreement or disagreement to ten different statements followed in part 1 of the questionnaire. Answers could be given with a 5 step Likert scale.

Part 1: Statements to (dis-)agree are e.g. "Did you observe sexual harassment against males/females within your medical educational field?" Response options ranged from: "I agree completely; I agree partially; I do not know.; I disagree partially; and: I disagree completely."

Answers in Part 2 contain e.g. "Have you ever felt that your job or your future job was dependent on you performing an unwanted sexual behavior?" They could choose between "never" to "once", "two to five times" and "more than five times".

In Part 2 questions on people who were responsible for sexual harassing actions e.g. "manager or supervisors?", "colleagues?", "patients?" or "other group of people" were asked.

A contingency plan was put in place to help survey respondents deal with the potential for emotional and/or psychological distress resulting from completing the survey and re-living potentially traumatic experiences. The Medical Faculty in Münster has helpdesk for students, the leading psychologist, Mrs Janina Sensmeier, is co-author of the manuscript. In addition, a special support consultation was available in case of need as part of the study.

Statistical analysis: Continuous data are presented as the mean \pm standard deviation (range) and categorical data are presented as the frequency (percentage). Continuous data are analyzed using the Mann-Whitney U test. Paired continuous data are compared using the Wilcoxon signed rank test. Proportions are compared using the Chi-square or Fisher-exact test, as appropriate and as necessary. Examples of qualitative data are presented but the formal analysis of the free text is yet to be completed. Data of partial and complete agreement were collapsed, and partial and complete disagreement, too.

Results

Victims

Six hundred twenty-three (28.8%) of the 2162 medical students answered the online questionnaire completely. Four hundred sixty-seven (74.8%) of them were female, 156 (25.1%) male. None defined themselves “diverse”. In Germany the category of gender affiliation “diverse” means LGBTQs (lesbian-gay-bi-and trans-sexual or queer individuals). 89 surveys were excluded for being incomplete; 50 of them (56.2%) were female participants.

Nearly a quarter of them (24.6%) already experienced different forms of sexual harassment (*Table 1*). The same proportion (24.6%) is aware that sexual harassment is present in medicine. When being asked about personal experiences of sexual harassment, the percentage increases to 58.9%.

A total of 76.9% of those who experienced sexually harassment were female; 21.8% were males. The key results are summarized in *Table 2*. All females who were sexually harassed experienced unwanted physical contact. In the free text answers further descriptions of “unwanted touch” were found. While physical assaults were “unambiguous” for the female undergraduates, they reported being unable to say “no” or “stop”.

Perpetrators

Over forty one percent (41.3%) of our students have experienced inappropriate sexually comments on their appearance, clothing, sexual orientation or behavior. In 19.3% of cases patients were involved, in nearly ten percent educators/superiors (9.8%) or colleagues (9.3%) (*Table 3*). Sexual harassment in form of physical assault was mostly face-to face (31.8%), less frequently occurring electronically via email or short messaging. Only 2.4% experienced offending phone calls, 3.7% sexually offending short messages and 1% via email contacts.

The analysis of the free texts showed that in case of patients acting as perpetrators, the majority of them were “over 50-year old males” asking for repetitive intimate examination, or exhibitionism (7.5%). However, victims were not always sure this behavior was inappropriate “maybe he touched my breast accidentally”.

Free texts showed misbehaviour of a male surgeon and educator towards his female trainees several times. He came extremely close so that the female trainees and students were caught between him and the OR table. The key results are summarized in *Table 2*

Legally punishable acts according to German Penal Code¹⁷ were reported in 9.8% of cases in this survey with 8.5% of the students are willing to describe the assaults. Enforced sexual intercourse is reported in eight questionnaires (1.3% of the collective) without free text input. Perpetrators reported: three times medical superiors (37.5%) and educators (37.5%) and once a male patient (12.5%). "Other" perpetrators were not further specified in the free text section.

Discussion

This survey shows that sexual harassment in medical education and the medical workplace exists as an important problem among undergraduate education at a large German medical school in Münster. Those who reported experiencing some form sexual harassment (58.9 %) were mostly female (87.6%), while perpetrators are mostly males (89.7%) and involved patients (18.3% for sexual harassing behavior), too.

Our results in undergraduates corroborate similar findings on physicians from a German hospital in Berlin and other European countries and the US^{9,11,13}. The issue of sexual harassment in medicine is a long-standing problem, and the potential negative impact on patient's treatment and physician's well-being is recognized¹⁴⁻¹⁵. American psychiatrists reported that women who experienced sexual harassment struggle in isolation in their working environment and were not able to achieve their potential in careers and their research fields¹⁰. In those women with trauma symptoms only 1-7% had filed a formal complaint; possibly due to a lack of role models or anticipated lack of success. The symptoms caused by the sexual harassment were stress, depression, obesity, and chronic illness, an increased absence from workplace and even cardiovascular diseases. 50% were bullied by a colleague, 30% by a patient. 40% experienced sexual harassment by superiors in Ireland. Our results further supported by a position paper of the IMO (Irish Medical Organization)¹³. They asked for experiences, too and differentiated female and male responses: 26.2% suffered from gender-based harassment the last two years (31.3% were females and 15.4% were males). Sexual harassment occurred in 18.3% within the last two years. They found that discrimination and sexual harassment influence specialty choice. Surgery was the only specialty in this study where the respondents felt that gender had career implications. Concerning the perpetrator groups Irish doctors showed different impact. 50% of the females were bullied by colleagues; 33% by patients and less by superiors.

Our data also indicate that the more severe forms of sexual harassment such as unwanted physical contact and forced physical contact have patients as the main perpetrator, while sexual assault has superiors and educators as the main perpetrators. It suggests that different strategies for education maybe needed targeting patients, staff and supervisors and not limited to students.

To the best of our knowledge no other study on undergraduates have been published so far in Germany^{11,16}. Our data clearly demonstrate that the problem exists from early on; starting at undergraduate level and is not confined to those working as physicians. This problem exists not only in Germany but globally and warrants a raised awareness, re-action, and reflection on this challenging issue to better support and educate undergraduates. It may be assumed that, following sexual harassment,

undergraduates will suffer similar symptoms as reported by physicians^{2,4,6}. Moreover, we believe that the incidence of sexual harassment is underreported and that measures must be put in place to interrupt the vicious cycle of silence. Interventions, policies and recommendations must be put in place to instill sustainable change.

In Münster, an independent voluntary task force of important stakeholders at the medical faculty was formed. Main and consensus goals of the task force were based on the outcome of this survey among undergraduates and in accordance to the three key recommendations of the Irish position paper. After the identification of the extent, a first meeting with managers of all level had already been conducted and next measures discussed: We plan training related to sexual harassment on all levels: including physicians as well as students and nursing staff. Communication and reflection on sexual harassment will increase awareness. Awareness of sexual harassment and its prevention will be emphasized as a part of the development of professional behaviors among our medical students. We are their role models as medical educators and supervisor and we must work towards eliminating sexual harassment amongst our students by awareness, reflection and communication, too.

Conclusion

Sexual harassment is an issue within our local medical educational settings due to a lack of awareness, reflection, and communication. It is an interprofessional challenge, and female students experience the majority of assaults. Our task is actually to take care and create transparency and eliminate sexual harassment.

Declarations

Ethics and consent to participate: applicable. The MWIA study and questionnaire was ethically approved by the Monash University Australia (Project ID 10064) and was designed by an international team on experts in medical education led by Prof. Jan Coles. Re-approval at the local ethics committee was deemed to be not necessary as participation was anonymous and deliberate. The communication with our local ethics committee is attached.

If personal data are collected, which was not the case in our study, aggregated data analysis of students' questionnaires, educational evaluations, performances, videos and assessments are based on a general written consent at our medical faculty. The decision of the ethics committee was published: Hertel-Waszak, A., Brouwer, B., Schönefeld, E., Ahrens, H., Hertel, G., Marschall, B. (2017). Medical doctors' job specification analysis: A qualitative inquiry. GMS J Med Educ, 34(4):Doc43. doi:10.3205/zma001120, URN:urn:nbn:de:0183-zma0011200.

Consent to publish: All authors (ES, BPF, JC, BM, BP, HA, JS) have read and approved the manuscript. The views expressed in the submitted article are our own and not an official position of the involved institutions.

Availability of data and materials: The datasets generated and/or analysed during the current study are not publicly available due to anonymous request of the survey and deliberate participation but are available

from the corresponding author on reasonable request.

Competing of interest: There is no conflict of interest

Funding/Support: none

Authors' contributions:

All authors have read and approved the revised manuscript

1. Concept and design: ES, BM, BPf
2. Acquisition, analysis, or interpretation of data: ES, HA, BP, JS
3. Drafting of the manuscript: ES, BPf, JC
4. Critical revision of the manuscript for important intellectual content: ES, BPf, HA, JS, BP, JC, BM
5. Statistical analysis: ES, BPf
6. Administrative, technical, or material support: HA, JS, ES
7. Supervision: ES, BPf, BM

Acknowledgments: none

Authors' information: no other disclosures and no previous presentations

References

1. WHO definition on gender harassment: <http://www.un.org/womenwatch/osagi/pdf/who.pdf>
2. Pinholster, G. National survey conducted by AAAS and Science confirms continuing obstacles to women in science. American Association For The Advancement Of Science. 2019; <https://www.aaas.org/news/national-survey-conducted-aaas-and-science-confirms-continuing-obstacles-women-science>. Data accessed: January 31, 2019
3. Shen, H. Inequality quantified: mind the gender gap. Nature. 2013; 495: 22-24
4. Dzau, VJ Johnson, PA. Ending sexual harassment in academic medicine. New England Journal of Medicine. 2018; 379:1589-1591
5. Pololi, LH, Jones, SJ. Women Faculty: An Analysis of Their Experiences in Academic Medicine and Their Coping Strategies. Gender Medicine. 2010 ;7(5): 438-50
6. Jena, AB, Olenski, AR, Blumenthal, DM, Stewart, A, Ubel, P, Jagsi, J. Sex differences in physician salary in US public medical schools. JAMA Internal Medicine. 2016; 176: 1294
7. Jenner, S, Djermeester, P, Prügl, J, Kurmeyer, C, Oertelt-Prigione, S. Physician Work Environment and Well-Being: Prevalence of Sexual Harassment in Academic Medicine. Research Letter in JAMA Internal Medicine. 2019; 179(1): 108-111 doi:10.1001/jamainternmed.2018.4859
8. Charney, DA, Russell, RC. An overview of sexual harassment. American Journal of Psychiatry. 1994; 151: 10-17

9. Fnais, N, Soobiah, C, Chen, M. Harassment and discrimination in medical training: a systematic review and meta-analysis. *Academic Medicine*. 2014; 89: 817-827
10. Buowari, DY, Pfleiderer, B, Vezzani, A, Coles, J. Sexual harassment of medical women in medicine today: #metoo. Paper presented at the regional MWIA meeting Africa and Near east, 8 November, 2018. Proceedings.
11. IMO Irish Medical Organisation Position Paper on Women in Medicine, <https://imo.ie>; data accessed September 2017
12. [http://www.europarl.europa.eu/RegData/etudes/STUD/2018/604949/IPOL_STU\(2018\)604949_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/604949/IPOL_STU(2018)604949_EN.pdf)
13. <https://www.telegraph.co.uk/news/2018/11/01/nhs-needs-metoo-moment-stamp-sexual-harassment-doctors-union/>
14. <https://metoomvmt.org>. Accessed February 15, 2018. #MeToo movement [website].
15. Byerley, JS. Mentoring in the era of #MeToo. *JAMA*. 2018; 319 (12): 1199-1200
16. <https://www.bmfsfj.de/blob/jump/84328/langfassung-studie-frauen-teil-eins-data.pdf>. accessed September 13, 2018; Mueller, U. & Schroettle, M. (2004) Lebenssituation, Sicherheit und Gesundheit von Frauen in Deutschland.
17. https://www.gesetze-im-internet.de/englisch_stgb/index.html#gl_p0012: German Penal Code: §174-184j StGB: <https://dejure.org/gesetze/StGB/170.html> versus <https://dejure.org/gesetze/StGB/177.html> or <https://dejure.org/gesetze/StGB/183.html>

Tables

Table 1: Various forms of sexual harassment reported from undergraduates stratified by sex of our Münster medical school

Explanation: Data of disagreement and „I do not know“ are not shown.

Statements	Answers of (partial) agreement (n)	Females (partial) agreement (n/%)		Males (partial) agreement (n/%)	
Observed sexual harassment in the medical field	365	273	74.8	92	25.2
Observed sexual harassment at the educational working site	153	114	74.5	39	25.5
Experienced sexual harassment	154	135	87.6	19	12.3
Job support due to sexually shaded behaviour	74	70	94.6	4	5.4
Physical sexual harassment, e.g. unwanted touching	198	193	97.5	5	2.5
Verbal sexual harassment	257	192	74.7	65	25.3
Comments on sexual orientation	46	35	76.1	11	23.9
Unnecessary intimate examinations	60	55	91.6	5	8.4
Forced sexual contact	53	53	100	0	0
Forced sexual intercourse	8	8	100	0	0

Table 2 Key results

Result	Mean percentage
Verbal sexual harassment	41.3%
Physical sexual harassment	31.8%
Forced sexual contact/intercourse	8.5%
Our undergraduates are aware of sexual harassment within the medical field.	74.8%
Our female students have experienced sexual harassment.	87.6%
Physical sexual harassment and forced sexual contact is experienced by women.	97.5%
Patients and superiors are the main responsible persons	18.3% and 7.0%

Table 3: Distribution of perpetrators of different forms of sexual harassment

Explanation: Data „no assault or contact“ and „I do not know“ are not given.

Forms of sexual harassment	Group of responsible persons	Answers from female medical students (n/%)		Answers from male medical students (n/%)	
		n	%	n	%
Verbal sexual harassment	Superiors, educators	58	95.1	3	4.9
	Patients	110	91.7	10	8.3
	Colleagues	44	75.9	14	24.1
Physical sexual harassment	Superiors, educators	24	92.3	2	7.7
	Patients	92	85.2	16	14.8
	Colleagues	29	85.3	5	14.7
Forced sexual contact	Superiors, educators	15	93.8	1	6.2
	Patients	15	88.2	2	11.8
	Colleagues	5	100	0	0

Figures

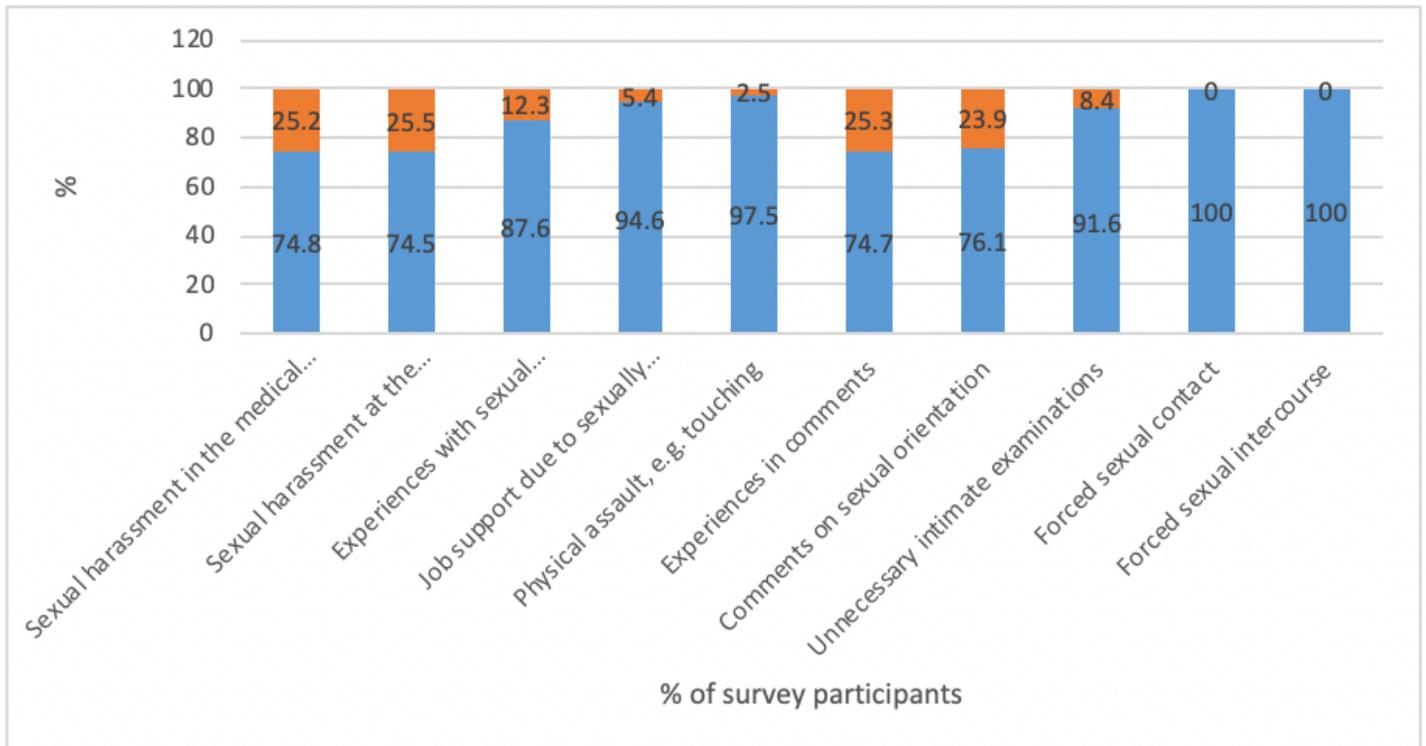


Figure 1

Various forms of sexual harassment (%) reported from undergraduates stratified by sex of our Münster medical school, Germany: blue column – female, red column – male

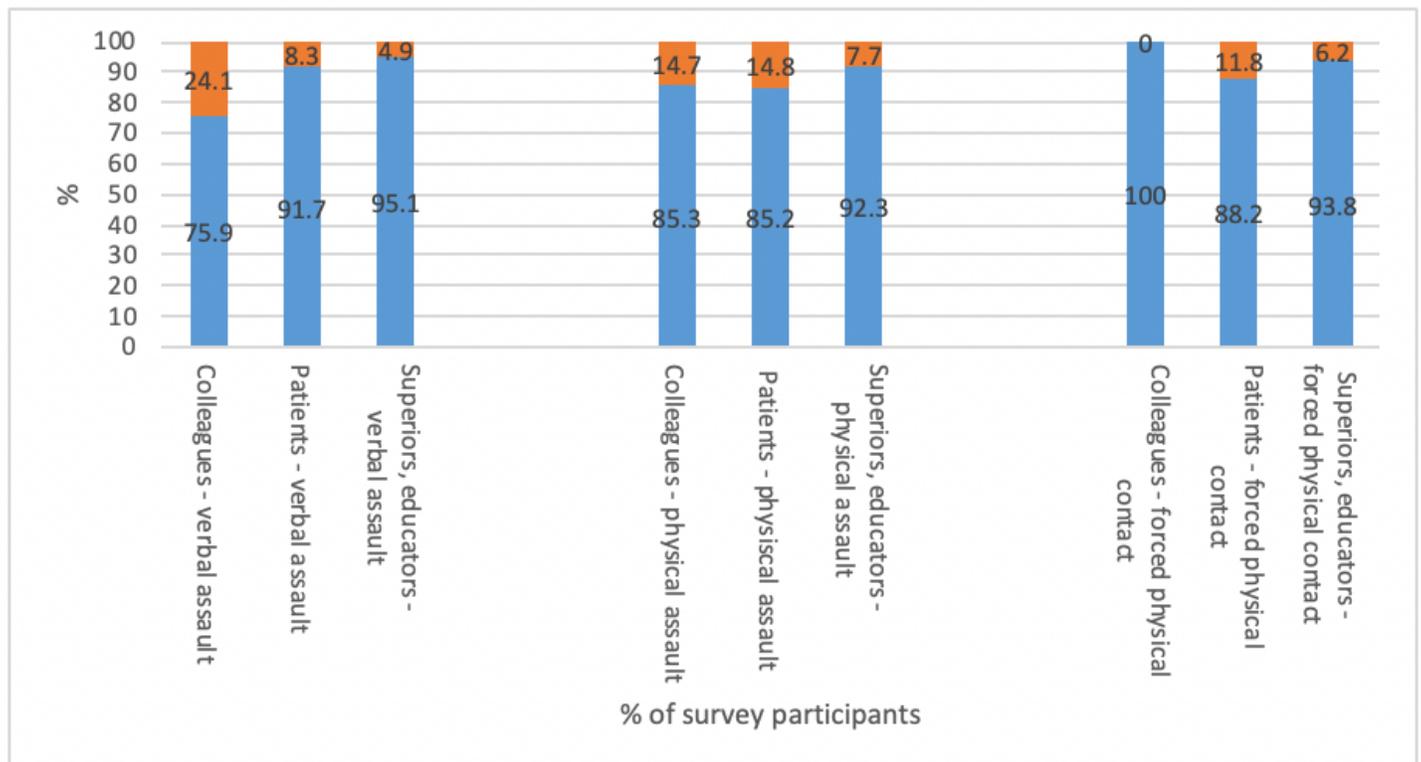


Figure 2

Distribution of perpetrators of sexual harassment: blue column – female, red column – male

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [202007MWIASexualHarassmentSurvey.pdf](#)