

Intimidation and Sexual Harassment during Plastic Surgery Training in the United States

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Background: Attending physicians, peers, other providers, and patients are sources of intellectual growth, but may also be a source of abuse and harassment. Published international studies have found that harassment within residency training is widespread but there is little data regarding plastic surgery training. The authors sought to explore the incidence of harassment experienced by plastic surgery residents currently enrolled in US integrated and independent programs.

Methods: After an IRB-approved exemption was obtained, an anonymous internet-based survey was distributed via email to all plastic and reconstructive surgery residency programs. The survey was comprised of 23 questions that focused on personal experience or knowledge of other colleagues who had encountered abuse and harassment during their training. Responses were collected during a 60-day period. The response rate was 16%.

Results: A total of 173 individuals completed the survey. Regarding harassment experienced by the respondents, 39.2% reported verbal abuse, 19.9% experienced sexual harassment, and 3.6% reported being physically abused during their training. Of those individuals who were sexually harassed, 72.7% were females. In many of the cases (64.5%), the instigator was a supervising physician. Most respondents did not feel comfortable reporting the abuse (74.19%).

Conclusions: Abuse and sexual harassment rates among active plastic and reconstructive surgery residents in the United States are high and attention should be brought to this important issue. Further studies should be conducted to assess the extent of abuse so that it can lead to implementation of programs that provide accountability, improved support, counseling strategies, and foster appropriate professional development. (*Plast Reconstr Surg Glob Open* 2019;7:e2493; doi: [10.1097/GOX.0000000000002493](https://doi.org/10.1097/GOX.0000000000002493); Published online 30 December 2019.)

INTRODUCTION

Intimidation, sexual harassment, and gender discrimination are evident in many professions, including medicine, and appear to affect both genders. The #MeToo movement highlighted in October 2017, calling out abusers and focusing on the victims of harassment, encouraged

the establishment of methods for identification, change, and prevention.

The hierarchical structure, seen in some professions, allows for the creation of situations in which individuals may be vulnerable, as in the field of medicine. Higher-ranking professionals provide mentorship and support, yet may also be the source of abuse, harassment, and discrimination.¹⁻³ Studies over the past 2 decades demonstrate that over 90% of medical students, residents, and staff have experienced mistreatment, abuse, intimidation, or harassment.⁴

Harassment in residency can negatively impact an individual's emotional and physical well-being.⁴ There is a paucity of data, however, for the experience of a surgical resident. Previously reported, types of abuse among residents include verbal, physical, sexual, as well as academic harassment. Ultimately, this creates hostile work environments, induces stress and anxiety, and can impair resident performance or contribute to career changes. Most studies evaluating harassment in medicine are focused

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on medical students and often show higher instances of depression and substance abuse.⁵⁻⁷

Although many training programs have implemented measures to eliminate harassment and discrimination, their impact remains unknown. It is especially important to examine if fear of retaliation leads to underreporting of these events, particularly in cases where the perpetrator is also responsible for in-training evaluations.

Despite considerable literature documenting abuse within residency programs, limited studies have examined this problem within a specific surgical specialty. Therefore, the aim of this study is to examine both the incidence and sources of verbal and sexual harassment among plastic surgery residents currently enrolled in integrated and independent residencies, and fellowship programs, across the United States.

MATERIALS AND METHODS

To determine the incidence of intimidation and sexual harassment among plastic surgical trainees, an anonymous web-based questionnaire was administered (www.surveymonkey.com, Palo Alto, Calif.). The questions were developed based on similar questionnaires previously reported in the literature. The Institutional Review Board at NYU Winthrop Hospital approved the study with exemption.

The enrolled study population included residents of all levels in United States ACGME-approved integrated and independent plastic surgery programs. The ACGME 2016–2017 data identified 68 independent programs and 76 integrated programs. Our target population consisted of ~1,064 resident physicians with 397 females, 645 males, and 22 unreported.⁸

An email including the purpose of the study and a link to the survey was distributed to all residency coordinators to forward to their residents in January 2018. The survey was then open for a period of 30 days. Following a reminder email in March 2018, an additional 30-day period was created to allow for further recruitment. The data were then collected for statistical analysis.

The survey included 23 questions, which included a collection of demographic data of age, gender, medical specialty, and level of training for residents and fellows. The questions also inquired about the nature of the harassment, source, and whether a formal complaint was made and the resulting consequences. The final questions delved into the impact of the harassment on residents professionally.

RESULTS

There were a total of 173 participants (response rate, 16%), with 104 males (60.1%) and 69 females (39.9%). To maximize response rate, 2 separate 30-day response periods were created. Additionally, 2 separate emails were distributed to recruit new responses. The low response rate, may represent the inherent nature of this topic and the stigma of reporting abuse or harassment particularly of a sexual type.

Most of the respondents identified themselves as heterosexual (n = 159; 92.4%), while the remaining individuals identified himself or herself as homosexual (n = 9;

5.2%) or bisexual (n = 3; 1.7%). One respondent chose not to identify his or her sexual orientation. The majority of individuals were enrolled in an integrated plastic surgery program (n = 122; 70.93%) at the time of the survey, while the remaining respondents were enrolled in independent plastic surgery programs (n = 47; 27.33%) or advanced fellowship programs (n = 3; 1.74%). There were 79 (45.9%) junior residents, 66 (38.4%) senior residents, 26 fellows (15.1%), and 1 attending (0.6%) (Table 1).

There were 115 respondents (66.8%) that witnessed harassment during their medical training. The main types of harassment witnessed by the survey respondents during their medical training were verbal (n = 106; 61.6%) and sexual (n = 51; 29.7%), while 9 respondents (7.8%) reported witnessing physical abuse (Fig. 1). The main groups whose harassment was witnessed included that of plastic surgery residents (n = 69; 40.4%), medical students (n = 47; 27.5%), and other surgical residents (n = 88; 51.5%). Other groups included internal medicine residents (n = 4; 2.3%), fellows (n = 15; 8.8%), and attending physicians (n = 4; 2.3%). Individuals chose multiple responses for these questions. A total of 57 individuals (32.9%) stated that they did not know of anyone who had experienced any harassment during their training (Fig. 2).

Sixty-five individuals (39.2%) reported experiencing verbal abuse themselves. This included being cursed at or called inappropriate names by colleagues and/or attending physicians. Although most individuals denied experiencing any physical abuse (n = 159; 96.4%), 6 respondents (3.6%) did report being pushed, shoved, kicked, or hit with instruments in the operating room (Fig. 3).

Thirty-three (19.9%) reported experiencing sexual harassment during their training (Fig. 3). Of those, 24 (72.7%) were females (Table 2). Fifty percent of all respondents (n = 15) reported that this type of harassment occurred at least 2–3 times, while others stated that it occurred either once (n = 4; 13.3%), 4–5 times (n = 1; 3.3%), or >5 times (n = 10; 33.3%) (Table 3). The abusers in question were usually >2 different individuals (n = 13; 43.3%) of the cases; while the remaining respondents stated that it was either the same individual (n = 11; 36.7%) or 2 different individuals (n = 6; 20%).

Table 1. Participant Demographics

Gender	Participants (%)
Males	104 (60.1)
Females	69 (39.9)
Sexual orientation	
Heterosexual	159 (92.4)
Homosexual	9 (5.2)
Bisexual	3 (1.7)
Decline to answer	1 (0.6)
Training program	
Integrated program	122 (70.9)
Independent program	47 (27.3)
Advanced fellowship	2 (1.2)
Other surgical program	1 (0.6)
Training level	
Junior resident	79 (45.9)
Senior resident	66 (38.4)
Fellow	26 (15.1)
Attending	1 (0.6)

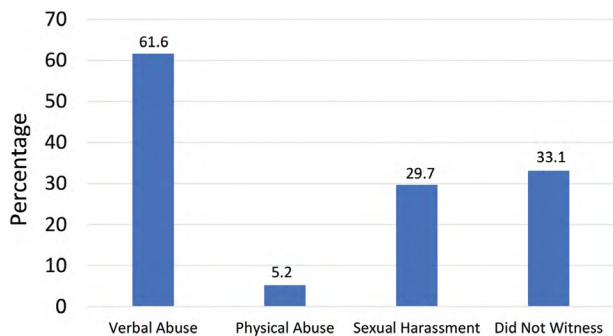


Fig. 1. Witnessed verbal or physical abuse, or sexual harassment in another individual. Respondents were able to select multiple answers.

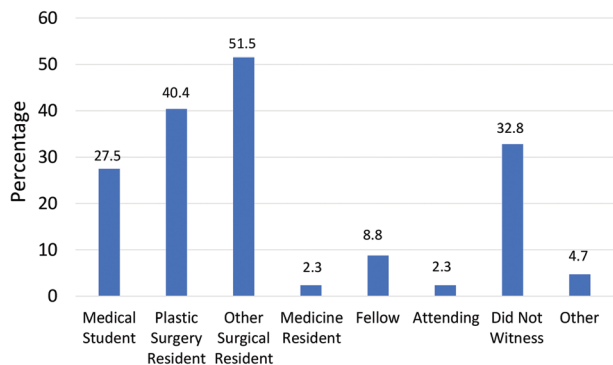


Fig. 2. Individuals experiencing abuse or harassment that was witnessed. Respondents were able to select multiple answers.

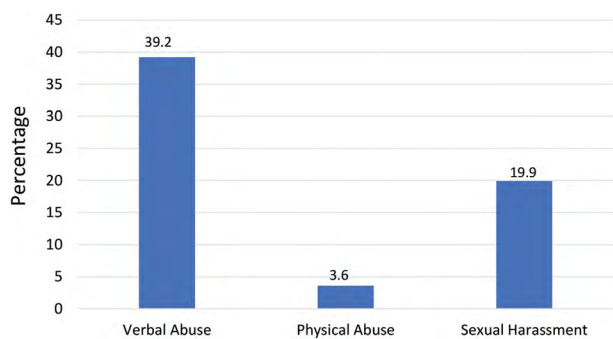


Fig. 3. Personal experience of verbal abuse, physical abuse, or sexual harassment.

Respondents stated that the harassment occurred equally in either the operating room (n = 18; 60%), during rounds or in a classroom setting (n = 18; 60%), or privately in an office setting (n = 18; 60%). Other areas where harassment took place included call rooms (n = 3; 10%), the emergency room (n = 1; 3.3%), or outside of work (n = 6; 20%). Again, individuals were able to choose multiple responses for this question.

The examples of sexual harassment experienced by the respondents mainly included unwanted comments (n = 27; 87.1%), jokes of a sexual nature (n = 21; 67.7%), derogatory and chauvinistic comments (n = 19; 61.3%), sexist remarks and/or behaviors (n = 20; 64.5%), and flirtatious advances (n = 18; 58.1%). Other types of sexual

Table 2. Personal Experience of Abuse or Harassment Reported by Gender

Verbal Abuse	“Yes” Response/Total (%)
Males	35/100 (35)
Females	30/66 (45.5)
Total	65/166 (39.1)
Physical abuse	
Males	1/100 (1)
Females	5/65 (7.7)
Total	6/165 (3.6)
Sexual harassment	
Males	9/100 (9)
Females	24/66 (36.4)
Total	33/166 (19.9)

Table 3. Examples of Sexual Harassment Experienced, Number of Occurrences, and Location of Harassment

Examples	Response (%)
Unwanted comments	27 (87.1)
Sexual jokes	21 (67.7)
Derogatory, chauvinistic comments	19 (61.3)
Sexist remarks/behavior	20 (64.5)
Flirtatious advances	18 (58.1)
Physical advances	7 (22.6)
Subtle bribery to engage in sexual behavior	5 (16.1)
Threats to engage in sexual behavior	3 (9.7)
Coercive advances	4 (12.9)
Other	1 (3.2)
Occurrences	
Once	4 (13.3)
2–3 times	15 (50)
4–5 times	1 (3.3)
>5 times	10 (33.3)
Location	
In private (office)	18 (60)
In front of others (rounds, classroom)	18 (60)
In the operating room	18 (60)
In the call room	3 (10)
Outside of work	6 (20)
Other	1 (3.3)

harassment included physical advances (n = 7; 22.6%), bribery to engage in sexual behaviors (n = 5; 16.1%), threats to engage in sexual behaviors (n = 3; 9.7%), or other coercive advances (n = 5; 16.1%). Again, survey respondents were able to select multiple choices for this question.

Most instances of sexual harassment occurred in person (n = 29; 96.7%), while other means of harassment included over the phone (n = 4; 13.3%), in text messages (n = 9; 30%), or in e-mails (n = 2; 6.7%). The instigator was most commonly a supervising physician (n = 20; 64.5%). Other instigators included patients (n = 12; 38.7%), co-residents (n = 12; 38.7%), patients’ family members (n = 8; 25.8%), or ancillary staff (ie, nurses, physician assistants; n = 8; 25.8%) (Fig. 4).

The majority of respondents who had experienced sexual harassment experienced it during their residency training (n = 25; 86.2%), while 15 individuals experienced it during medical school (51.7%). While in medical school, 13 respondents (52%) experienced harassment during a general surgery rotation, 10 (40%) during rotations in other surgical sub-specialties (ie, plastic surgery, orthopedic surgery, ENT), and 4 (16%) in an internal medicine rotation and/or other medical sub-specialty.

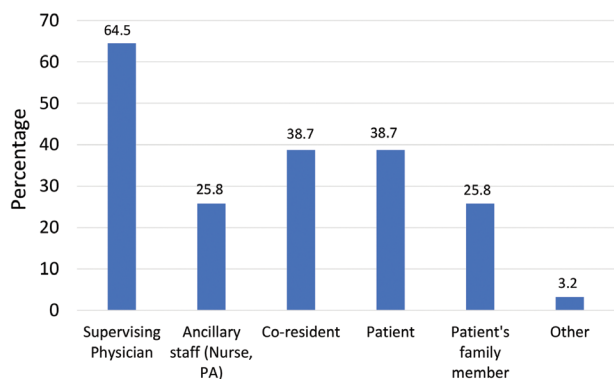


Fig. 4. Instigators of abuse and harassment. Respondents were able to select multiple answers.

Table 4. Reporting of Abuse and Consequences of Reporting by Gender

Felt Comfortable Reporting	“Yes” Response/Total (%)
Males	5/9 (55.6)
Females	3/22 (13.6)
Total	8/31 (25.8)
Reporting occurred	
Males	1/9 (11.1)
Females	5/22 (22.7)
Total	6/31 (19.4)
Support offered	
Males	1/9 (11.1)
Females	4/22 (18.2)
Total	5/31 (16.1)
Consequences for abuser	
Males	0/8 (0)
Females	2/22 (9.1)
Total	2/30 (6.7)

Most individuals who had experienced some type of harassment did not feel comfortable reporting the abuse (n = 23; 74.2%), and only a few (n = 6, 19.4%) actually did report the abuse to another person. Of those who reported the abuse (n = 7), most were offered support (n = 5; 16.1%) that included having another supervising physician speak to the offending physician. Only in 2 (6.7%) situations, however, were there consequences for the abuser that included either reprimand by a supervisor or demotion (Table 4).

Although the majority of respondents did not feel that these experiences of harassment had any negative effect on their confidence as a professional (n = 22; 73.3%), 8 respondents (26.7%) did feel that this negatively impacted their self confidence. In addition, most individuals (n = 23; 76.7%) did not feel that these experiences impacted their career advancement; however, 7 individuals (23.3%) did feel that there was a negative effect.

DISCUSSION

Verbal, physical, and sexual harassment is a pervasive problem in medicine but its extent and effects are largely unknown. This is the first survey-based article reporting the prevalence and sources of verbal, physical, and sexual harassment among active independent and integrated plastic surgery residents across the United States.

This issue, however, is clearly not isolated to the United States nor to this particular surgical specialty. In fact, abuse during residency is seen as a “universal phenomenon,” occurring not only in different specialties, but also in different countries.⁹ Several reports have identified this issue in countries such as Japan, Canada, Australia, and Nigeria and across many specialties including family medicine, internal medicine, surgery, and obstetrics among others.^{5-7,9,10} Negative traditions that continue to survive and persist within the medical culture may have a strong influence on the continued mistreatment.⁹ Moreover, large generation gaps among educators and trainees may create conflict, and therefore opportunities, leading to abuse and intimidation.^{10,11} Our study was not intended to identify the causes of this problem, but rather to identify the prevalence of abuse occurring in any form among plastic surgery trainees in the current era.

In the nineties, this issue had already been recognized and reported by authors such as Cook et al and VanIneveld et al. Both studies used cross sectional surveys and targeted residents from multiple residency programs. They reported on the psychological abuse, discrimination based on gender, and sexual harassment experienced during residency training.^{10,12} Surprisingly, 2 decades later, similar reports were published by the Canadian Association of Interns and Residents (CAIR). In these reports, it was revealed that 7 of 10 residents described being the target of inappropriate behavior.¹³ This confirms the fact that harassment among medical trainees is an active issue that should not be overlooked.

Over 80% of the individuals in our study who had experienced sexual harassment, did not feel comfortable reporting the event. Unfortunately, not reporting such occurrences have a negative effect in generating the appropriate solutions, implementing change, and efficiently providing support to affected individuals. Continuous harassment may deteriorate the performance of future physicians by adding stress to an already demanding medical training and cause additional emotional and mental health problems.⁹ One of the most prevalent reasons for not reporting these events has been a perceived lack of an appropriate response or change in behavior.¹³ The American Medical Association in 2006 proposed a multidirectional approach that would include education, prompt identification, and enforcement. Furthermore, there might be a need for more visible, confidential, and dedicated resources to help residents who are experiencing these issues but are intimidated about any negative consequences in their careers.¹⁰ One of the goals of this study is to bring active awareness that will increase resources to efficiently identify and provide a solution to this problem. It may be true that complete avoidance of harassment may be impossible since patients and their family members are also sources of the abuse. However, the focus of improvement should be among attending physicians, others in training, and other staff, in which even one incidence of such behaviors is too many. The culture of medical training needs to improve and reporting such events should be acceptable and encouraged.¹⁴ Identifying and providing ways to mitigate harassment

during medical training should be added to every residency curriculum and clear ways to report and manage such conducts should be established.

The most common source of sexual harassment identified in our study was attending physicians (64.5%), followed by ancillary staff such as nurses or physician assistants (25.8%). Remarkably, this trend does not seem to have changed throughout the years. The CAIR reported a similar finding in their study revealing that 50% of the source of harassment was attributed to attending physicians followed by 25% from nursing staff.¹³ Cohen et al¹⁵ in 2005 demonstrated a slightly different trend with nursing staff being the main source of harassment followed by patients and lastly by attending physicians. In our study, patients were a source of harassment in 38.7% of cases and a patient's family member in 25.8%. Knowing that attending physicians are most likely to be involved in the harassment corroborates the fact that the trainee may feel intimidated to make the appropriate report. There is clearly fear that speaking up could cost the victims advancement in their careers. Across the board, attending physicians are expected to be mentors and examples of success where such behaviors are unacceptable.

An additional concern noted in our study, and supported by the literature, is the fact that female residents experience harassment in a larger percentage when compared with male counterparts. Our survey revealed that female residents were victims to all types of abuse with a greater frequency than males, 35% compared with 11%. In 1996, 75% of female residents from various medical specialties in Ontario, Canada, reported that they had experienced discrimination based on their gender.¹⁰ Two years later, in the United States, a study by Daugherty et al¹⁶ surveying a large group of second year residents listed in the American Medical Association revealed once again that female residents experience inappropriate behavior more commonly than men. The CAIR study in 2012 supported the same finding by reporting that female residents were more likely than male residents to experience abuse in all specialties.¹³

Despite this evidence identifying higher rates of sexual harassment among women in medicine over the past several decades, these types of incidents continue to exist in the culture of medicine. Much attention with the advent of the #MeToo Movement has recently been brought to similar conducts in several different industries where allegations against "powerful" men have raised awareness and strengthened the importance of speaking out against these acts. Previous under-representation of females in medicine may have led to the continuous cycle of harassment. However, women now make up the majority of those entering medical school nationwide.⁸ This change may incur a positive long-term impact in what has once been a male-dominated profession.

Interventions by residency programs are required to demolish a culture where any type of abuse is allowed. Prompt recognition and active promotion of prevention must take place. It is important to properly define harassment and abuse to accurately identify situations that should be reported. Current definitions may be ambiguous

and therefore overlooked.¹ Training sessions in recognizing abuse and clearly defining the actions that would be taken if a report were to be filed should be established in all programs. A positive learning environment free of intimidation will benefit the education of trainees and set examples for future generations of physicians. In addition, since attending physicians are not the only source of abuse, residents should be properly educated on how to deal with abusive ancillary staff, patients, and their families.

There are several limitations to these data. Unfortunately, there was a low response rate for the study. There was no incentive offered to complete the survey and it was completely voluntary. However, despite this, the percentage of residents that responded affirmatively in that they had either witnessed or experienced harassment was similar to numbers reported in previous studies surveying other specialties. In addition, several studies, including our own, have shown that instances of abuse and harassment are underreported especially in a formal setting often due to psychological distress related to the incident or for fear of retaliation. Finally, the study used self-reporting and is open to a measure of interpretation and recall bias. We tried to mitigate subjectivity by describing specific categories of harassment with examples; however, the respondents may still answer based on what they perceived to be an abusive experience.

CONCLUSIONS

Harassment of all forms continues to be prevalent in medicine and possibly in plastic surgery training programs. Our study identified that over 60% of residents witnessed harassment during either training and nearly 40% experienced it themselves. Moreover, when compared with studies in other specialties, the numbers match those even from 20 years ago. However, even 1 case of abuse continues to be too many. This highlights the need for creating a dialogue now to determine how future cases can be eliminated. Medical schools and residency programs should take a more active role in the identification of these events and encourage reporting these incidents. Harassment and discrimination are preventable. The opportunity exists to implement various educational and structural initiatives to help change the culture of medicine and to allow for an improvement in resident education for future generations.

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