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Physician mistreatment in the clinical learning environment

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ABSTRACT

Background: Mistreatment has been correlated with burnout and poor well-being in medical students, but data regarding residents and faculty are limited. The objective was to investigate the prevalence of mistreatment towards surgical housestaff and faculty and characterize such experiences.
Methods: In 2018, the Department of Surgery surveyed housestaff and faculty on incidents of mistreatment.
Results: Clinical faculty (63%) and residents (72%) completed the mistreatment survey. Excluding public embarrassment, 48% of residents and 29% of clinical faculty experienced mistreatment. Residents experienced public embarrassment and public humiliation more frequently than faculty, however faculty were subjected to racially or ethnically offensive remarks/names more frequently than residents ($p < .05$). Faculty within and external to their department were most cited as instigators of mistreatment. Residents experienced mistreatment most often by faculty, co-residents, and nurses. Reporting of the behaviors was low.
Conclusions: Incidents of mistreatment are frequently occurring for surgical residents and faculty.

Introduction

Psychological, emotional, and physical well-being are critical to physician development and have been associated with both physician burnout and patient quality measures.[1] Historically, the traditional surgical education model has tolerated forms of unintentional mistreatment through a competitive pyramidal residency program with the intentional dismissal of residents each year of training, long hours, and the use of Socratic-influenced "pimping" rituals to establish an intellectual hierarchy and expose deficits in surgical knowledge. The line between teaching and mistreatment can be difficult to manage within the surgical context considering factors such as patient severity of illness, acuity, and time pressures.[2–4] Teaching methods, including intimidation and harassment are, at times, considered functional educational tools among residents and faculty.[5,6] These mistreatment behaviors have been well documented among medical students in both surgical and non-surgical settings, however there is a paucity of data describing mistreatment amongst surgery residents and even less among surgery clinical faculty.[7] Ellis in 2019 surveyed surgical residents and found 30% verbal and physical abuse that was higher in female residents.[8,9]

There has been a profound evolution within the surgical training environment from a time of malignant surgical training programs and the Flexner report in 1910 to modern medical education. An emphasis has been placed not only on the acquisition of surgical skill, but also on professionalism, wellness, and teamwork to support a positive work environment. The Accreditation Council of Graduate Medical Education (ACGME) has recognized the impact of mistreatment within the learning environment by mandating, through the common program requirements, that training programs "…provide a professional, respectful, and civil environment that is free from mistreatment, abuse, or coercion of students, residents, faculty and staff."[10]

In addition, patient care is now appropriately recognized as a team-based effort that requires physicians to gain skills on leadership, effective communication, and conflict management.[11] The time when the surgeon held the sole responsibility in a patient's care and outcome is no longer the case. Appropriately, the physicians' role on a multidisciplinary team has evolved and challenged the medical community to redefine interactions in patient care, professionalism standards, and acceptable behaviors within the

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workplace.[12]

Modern, team-based healthcare requires professionalism and civility to prevent mistreatment and optimize the quality and safety of patient care. Mistreatment is used as an all-encompassing term to describe a wide spectrum of problematic behaviors ranging from belittlement, public humiliation, intimidation, power mistreatment, sexual harassment, discrimination, and physical abuse.[13] Mistreatment has been shown to be pervasive in the medical student clinical learning environment. The Association of American Medical Colleges Graduation Questionnaire (AAMC GQ) reports 42% of responding medical students experienced at least one instance of mistreatment as medical students in 2018.[10] The surgery clerkship is often cited for experiences of student mistreatment.[12,14] With respect to residents, mistreatment rates of housestaff have been reported as high as 70%–93%.[15–17] Kwok and colleagues found that 38% of surgical housestaff had been the target of physical abuse.[18] In a review paper of intimidation and harassment in medical education, verbal abuse was the most prevalent experience for residents.[15] This includes inappropriate verbal comments and non-physical verbal threats. Unfortunately, despite the intervening decades since the original reports of mistreatment in 1982, there has been limited progress towards eliminating mistreatment from medical education culture.[13,19]

While the prevalence and consequences of mistreatment are poorly described among housestaff, these data are virtually absent among practicing physicians. Mistreatment of practicing physicians has been described in other terms including work-place violence, discrimination, harassment, encounters with "disruptive physicians", experiencing "incivility" or bullying.[18,20–24] Over three quarters of internal medicine physicians reported psychological or physical abuse.[20] Healthcare workers have been found to be 16 times more likely to be the target of workplace violence than the general population.[21] Instigators of workplace violence have been described as other physicians, other health care providers, as well as patients.[16,20,21] In addition, a culture of incivility in medicine normalizes interaction that would not be acceptable in other work environments.[25] While, there is information about workplace violence, resident and faculty mistreatment by providers is not well described.

The tripartite goal of our department is to achieve excellence in our academic missions of education, clinical work, and research. This goal is unachievable and undermined if our residents and faculty are experiencing mistreatment. With pervasive mistreatment of medical students, exploring the experience of surgical residents and faculty is necessary to evaluate its incidence and attributes. It will also be important to identify parallels and relationships between the mistreatment experienced by the different groups within the medical learning environment. Our clinical learning environment represents a university-based training program. This study aims to identify prevalence of mistreatment within an academic university surgical department, and characterize the mistreatment experienced by our housestaff and faculty.

Materials and methods

Participants & procedure

Between May–June 2018, a Department of Surgery participated in an institutional effort to survey housestaff and clinical faculty on incidents of mistreatment towards them by other healthcare members. The Department of Surgery has 11 divisions that include 4 residency programs and 6 fellowships. The residency programs included were plastic and reconstructive surgery, urology, oral & maxillofacial surgery, and general surgery. A non-clinical researcher unaffiliated with the department recruited participation to complete a paper/pencil survey from residents and clinical faculty at the end of a grand rounds lecture. Participants were asked to distance themselves from others within the auditorium and return completed surveys to a large box to maintain confidentiality in responses. An electronic survey was sent via Qualtrics (Provo, UT) to absent members to allow participation.

Measures

Items were adapted from the AAMC Graduation Questionnaire (GQ) survey on mistreatment to reflect experiences of residents and clinical faculty (Appendix).[7] The AAMC GQ has adapted their questions over the past 19 years to encompass a comprehensive list of potential mistreatment behaviors of learners during medical education.[26] Sixteen mistreatment behaviors were assessed on a four-point frequency scale (1 = Never, 4 = Frequently). We followed the construction of the AAMC GQ, which queries the frequency of public embarrassment, but does not include this behavior in the group of mistreatment behaviors. Additional information was captured on instigators of mistreatment, reporting behavior, and barriers to reporting incidents. Residents were asked about their experiences as residents within the Department of Surgery and clinical faculty were asked about their experiences in their faculty role while in the Department of Surgery; some faculty members completed residency at the same institution but were asked to focus reporting to be based on their experiences as faculty.

Analyses

Chi-Squared tests were conducted to identify group differences between Surgery housestaff and clinical faculty. Count and percentages were calculated on the occurrence of mistreatment, instigators of mistreatment, reporting behavior, and barriers to reporting events. The Virginia Commonwealth University Institutional Review Board found our study qualified for exemption.

Results

Clinical faculty (n = 42 out of 67, 63%) and residents (n = 54 out of 75, 72%) completed the mistreatment survey. Including public embarrassment, 65% of residents and 38% of clinical faculty experienced mistreatment, while 48% of residents and 29% of clinical faculty experienced at least one incident of mistreatment excluding those who only reported embarrassment. In addition, 13% of residents were subjected both to sexist remarks and lower evaluations attributed to gender rather than performance. Residents experienced public embarrassment ($\chi^2(1, 96) = 4.97$, $p = .026$) and public humiliation ($\chi^2(1, 96) = 4.85$, $p = .028$) more frequently than faculty, however faculty were subjected to racially or ethnically offensive remarks/names more frequently than residents ($\chi^2(1, 96) = 4.08$, $p = .044$) (Table 1).

For clinical faculty, faculty within their department (n = 7; 44%) and faculty external to their department (n = 4; 25%) were most cited as perpetrators of mistreatment. Residents experienced mistreatment most often by faculty (n = 12; 34%), other residents (n = 8; 23%), and nurses (n = 5; 14%) (Table 2).

Regarding reporting behaviors, three clinical faculty reported mistreatment to their division chief or their departmental chair. Only one resident reported mistreatment, which was to a co-resident. Several barriers to reporting were identified (Table 2). The majority of residents deemed the mistreatment not important enough to report. Clinical faculty resolved the issue themselves or deemed reporting to be futile. Seven individuals listed fear of reprisal as a barrier to reporting. Three residents offered a text response for other reasons they did not report: "*Doesn't offend me, if*

Table 1
Incidents occurring at least once.

Incident Type	Role	
	Resident	Clinical Faculty
Been publicly embarrassed[a]	29 (53.7%)	13 (31.0%)
Been publicly humiliated[a]	20 (37.0%)	7 (16.7%)
Been subjected to offensive sexist remarks/names	7 (13.0%)	3 (7.1%)
Received lower evaluations solely because of gender rather than performance	7 (13.0%)	3 (7.1%)
Been subjected to unwanted sexual advances	4 (7.4%)	2 (4.8%)
Been subjected to racially or ethnically offensive remarks/names*	1 (1.9%)	5 (11.9%)
Been required to perform personal services (e.g., shopping, babysitting)	1 (1.9%)	2 (4.8%)
Been denied opportunities for training or rewards based on gender	1 (1.9%)	2 (4.8%)
Been denied opportunities for training or rewards based on race or ethnicity	1 (1.9%)	2 (4.8%)
Been subjected to negative or offensive behavior(s) based on your personal beliefs or personal characteristics other than your gender, race/ethnicity, or sexual orientation	1 (1.9%)	2 (4.8%)
Received lower evaluations solely because of race or ethnicity rather than performance	1 (1.9%)	1 (2.4%)
Been threatened with physical harm	0 (0%)	1 (2.4%)
Been physically harmed (e.g., hit, slapped, kicked)	1 (1.9%)	0 (0%)
Been asked to exchange sexual favors for grades or other rewards	0 (0%)	0 (0%)
Been denied opportunities for training or rewards based on sexual orientation	0 (0%)	0 (0%)
Been subjected to offensive remarks/names related to sexual orientation	0 (0%)	0 (0%)
Received lower evaluations or grades solely because of sexual orientation rather than performance	0 (0%)	0 (0%)

[a] difference between roles, $p < .05$ Chi-Squared Tests.

it did I spoke to an attending that was not the program director," "*I don't think I can change the national culture currently,*" and "*My embarrassment was instructive. I am better now because of it.*" One clinical faculty also provided a text response for not reporting, "*Past experiences with reporting worked against me.*"

Discussion

Our study found evidence that both residents and faculty experienced mistreatment within an academic surgical department. There is a significant amount of research on mistreatment of learners in the clinical learning environment, but very little work has been done evaluating the mistreatment of the faculty. The work that has been done has mostly focused on mistreatment at the hands of patients and their families.[21] The perceived mistreatment experienced by faculty and compared to trainees within the same environment has not been evaluated. By using the AAMC GQ, an advantage is that the same set of behavioral items are used for students, thus providing national benchmarking metrics. In contrast, studies of faculty and residents utilize different descriptions of mistreatment from psychological abuse[20] to incivility to workplace violence.[5,21,25] Therefore, the incidence of mistreatment against students, and residents compared to faculty in surgery is not known.

It is sobering to consider that mistreatment may span an individual's whole career. Public embarrassment and humiliation were the most common form of behaviors experienced by both groups, whereas racially or ethnically motivated offensive remarks were more prevalent among faculty. These forms of mistreatments are similar in that they disrespect, demean and publicly devalue a person. The faculty are the most common perpetrator for mistreatment for both groups. In so doing, these behaviors promulgate the historically malignant and hierarchical surgical education culture that modern surgical education has been working so diligently to transition away from.

One clear source of mistreatment for students and residents is the cultural adherence to hierarchy. A recent meta-analysis[27] of hierarchy and team effectiveness across nearly 14,000 teams from various industries shows that hierarchy has a net negative effect on team effectiveness. However, a power gradient does exist in many environments, especially medicine. Successful power dynamics depend on a shared agreement between leaders and followers about how, and in what manner, the leader wants his or her team to speak up when they see something concerning.[28] In medicine, power differential can be created by administrative and chronological relationships, which can decrease the ability for one to challenge authority or voice concerns. Many factors lead to organizational silence. In one study, which included a diverse range of employees from industries including consulting, financial services, new media, pharmaceuticals and advertising, up to 85% of the workforce felt unable to raise an important issue with their supervisor.[29] This silence is present in academic health centers with multiple causes including silos, limited resources, hierarchy and time pressures.[30] Further research on skill development and its ability to break down these barriers would be valuable. It would be

Table 2
Instigators of mistreatment & reasons for not reporting.

	Resident	Clinical Faculty
Instigator [a]		
Clinical faculty within Dept of Surgery	(N/A)	7 (44%)
Clinical faculty outside Dept of Surgery	(N/A)	4 (25%)
Faculty	12 (34%)	(N/A)
Intern/resident	8 (23%)	2 (13%)
Nurse	5 (14%)	2 (13%)
Other institutional employees	2 (6%)	0 (0%)
Administrator	0 (0%)	2(13%)
Student	1 (3%)	1 (6%)
Reasons for not Reporting[b]		
Incident was not important enough	15 (43%)	4 (25%)
Nothing would be done about it	3 (9%)	7 (44%)
Fear of reprisal	3 (9%)	4 (25%)
Resolved the issue themselves	2 (6%)	6 (38%)
Not knowing what to do	1 (3%)	2 (13%)
Other reason	4 (11%)	1 (6%)

[a] Clinical faculty and residents were given unique response options to capture faculty instigators.
[b] Numbers may not add up due to missing responses or responses can include multiple categories and percentages were calculated based on the number of respondents who indicated at least one incident of mistreatment across all 17 types in Table 1.

Table 3
Proposed interventions.

Increase reporting: identify and address root causes of not reporting
• Confidential reporting systems with the option to remain anonymous
• Communicate that reports of mistreatment are acted on by leadership
• Create a no-tolerance approach to encourage reporting
Address environmental contributions:
• Have systems that monitor and address work hours
• Create faculty committee that works with leadership to address productivity pressures
• Work with administration to provide adequate ancillary support (advanced practice providers, scribes, etc.)
• Address faculty and resident burnout and resilience
• Through leadership and engagement create a culture where incivility is not accepted
• Develop clear methods to facilitate communication
• Engage faculty participation in decision making
• Appoint recognition group including a resident, faculty, staff and administration
Increase understanding
• Anonymous evaluations by residents and students – with faculty behaviors addressed by leadership
• Focus groups of residents to better understand their needs and expectations, identify good areas and opportunities for intervention
Professional development
• Multidisciplinary behavioral health curriculum (components on emotional intelligences, behavioral interviewing, cultural competency and conflict resolution)
• 360-degree evaluations with tailored interventions
• Education on teaching and feedback
• Create a more positive learning environment
• Improved communication and engagement in decision making – faculty retreat, faculty newsletter, Wellness and Inclusivity in Surgical Education and Residency working group, Departmental development, engagement and wellness committee
Wellness initiatives
• Encouraging health behaviors (e.g. healthy snacks for residents)
• Exercise program for department
• Create a committee responsible for community building

important to work with faculty and senior residents since creating a psychologically safe environment requires clear leadership and expectations, civility and respect and an organizational culture that values trust, honesty, fairness and engagement. In addition, skill development in the recognition of the value of diverse opinions, using errors as a source of growth and providing constructive feedback will be important. Discussing leadership styles and ways to create and receive feedback might break down inappropriate hierarchical practices to improve the culture. Hierarchy could also play a role in faculty to faculty mistreatment as well as residents. While it may be more difficult to define the role of hierarchy with faculty, there continues to be power differentials among faculty in terms of divisional leadership, professional titles, specialty and length of employment.

Upon reflection of the study data, our Department of Surgery engaged in multi-faceted interventions to address mistreatment. Structurally, surgical leadership designated a new position, Associate Chair for Faculty Development, with financial support from the medical school to promote leadership development so that faculty members and leaders are equipped with behavioral and professional tools. These tools can include: active listening, which encourages minimizing distractions and clarifying for better understanding of what is being said, collaborative negotiation and navigating crucial conversations. These skills would help all members of the faculty to address behaviors which could be viewed as mistreatment and promote a culture of respect and inclusion among the members of their divisions and within the department.

Interestingly, our departmental faculty had a higher rate of "being subjected to racially or ethnically offensive remarks" compared to the residents and only one person in each group identified this leading to a perception of lower evaluations. In both groups the numbers in this question are small and may be influenced by perception bias rather than the intent of the person with whom they interacted. The etiology of this is not identified in our work and may be a phenomenon relevant to our faculty composition with increasing diversity in generational, gender, religious or cultural factors, and requires further investigation. Increasing diversity in workforces has been at times associated with a "turtling effect" in which if inclusivity is not thoughtful and promoted correctly, the diversity will cause segmentation within the groups rather than inclusivity.[31] Incivility targeted to those that are different often results from aversive discrimination which occurs when neither the instigator nor others are aware of its roots because the instigator can internally and externally condemn prejudice.[32] Self-awareness, increasing sensitivity, and implicit bias training may promote inclusion of diverse faculty members and decreasing these types of remarks. Our department has responded by creating a set of faculty expectations of behavior and is promoting more opportunities for professional development in diversity and bias training, teaching, feedback and conflict resolution.

We are troubled by the low reporting rate for mistreatment for faculty and residents. It is likely that the reasons for the low reporting for each physician may be different and dependent on contextual factors. There is an increased percentage of faculty who fail to report mistreatment because they feel nothing will be done about it. One faculty member commented they did not report because previous reporting had "worked against them," implying a fear of retribution or lack of psychological safety. This suggests a sense of hopelessness for reporting in the faculty, or possible the lack of a transparent and supportive system to identify, prevent, and minimize mistreatment. The National Academy of Sciences, in their response to sexual harassment on women in academic medicine, has called for a less formal reporting system to be created that is accessible and more well thought out and comprehensive to prevent retaliation even through microaggressions.[33] Similar reporting processes are also needed for our clinical faculty.

The culture and environment of a workplace significantly affect the interaction of its workforce.[34] While further studies are underway to understand the factors surrounding the culture of mistreatment, we have looked to the organizational psychology literature for direction. Factors associated with the emergence of mistreatment are multi-faceted. Organizational structure of work, specifics of work involved, the perpetrators and their preexisting characteristics, the students and their preexisting characteristics are all contributing factors to a student's perception of

mistreatment.[35] The way in which the learning environment is perceived including long hours, sleep deprivation, changing environments and expectations may also amplify the negativity of the situation.[36] We have made multiple changes within our department to start to address these and other potential factors. We have involved solutions that address mistreatment from multi-faceted approach since we believe it comes from both a personal and environmental origin (Table 3).

To gain more insight into our learning environment, in partnership with the medical school, we conducted focus groups with the residents to identify strengths and weaknesses in the educational program. Through this activity, we identified faculty champions in education, as perceived by our residents. We also implemented educational initiatives to reframe the purpose of feedback in our work so that it is seen as an improvement activity void of humiliation. Faculty identified by the chair in leadership positions now engage in 360-degree evaluations to identify strengths and opportunities for personal growth since they are seen as team leaders. Then, tailored interventions include mentorship or coursework to engage and develop our faculty in their personal areas of need. To improve the culture, we are working on the development of a multidisciplinary course in behavioral health with components on emotional intelligence, behavioral interviewing, cultural competency, and conflict resolution. We plan to increase our communication back to our faculty with quarterly department meetings, a newsletter and an anonymous system to suggest comments and concerns for the department. Finally, we started wellness-directed efforts to understand and address the needs of faculty, residents, and staff.

Some limitations of our study include response and participation bias, as well as recall bias that is present in survey research. We minimized response and participation biases through our methods design of anonymous surveys collected by non-clinical faculty and recruiting participation during a regularly scheduled meeting followed up by an electronic survey. In addition, targeted questions could not be asked for each type of incident and we could not delineate experiences and outcomes of mistreatment based on incident type. Further study is needed to understand how contextual factors impact incidents of mistreatment (e.g., severity of event, repeated incidents by few perpetrators compared to many perpetrators). In addition, the responses represent the "perception" of the respondent. Another individual with the same experience may or may not define the same experience as mistreatment or the same level of mistreatment. In addition, how the individuals perceive the experience may not necessarily be the intent of the person with whom they interacted. Future studies might further explore the perceptions and factors that influence this perception such as psychological safety of the environment. Finally, this a single institution study within a department and may not be generalizable since clinical learning environments may have unique cultures.

The impact of mistreatment can be significant. It creates a dysfunctional culture that can include: disruptive behavior, humiliating and demeaning treatment of subordinates, passive aggressive behavior, passive disrespect, dismissive treatment of patients and systemic disrespect. The culture of incivility within medicine needs to be changed so that we can achieve excellence in all the facets of our mission. In doing this research we identified mistreatment within our department that we did not want to be present and with the publication of this article were concerned about how others would view our department. However, we believe that to solve a problem we must identify it, own it, and move forward toward change. Dr. Kegan in the Harvard Business Review stated there is "no greater waste of resources in organizations that the energy expended every day to hide our weaknesses and manage others favorable impressions of us." We believe that our department needs to address this challenge to train the next generation of surgeons.[37] Our research will serve as a baseline as we move forward to improve our clinical work and learning environment.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.amjsurg.2019.11.038.

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