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Mistreatment and the learning environment for medical students on general surgery clerkship rotations: What do key stakeholders think?

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ABSTRACT

Background: Mistreatment has potential downstream effects on students. General surgery rotations tend to have a higher incidence of mistreatment reports. This study was undertaken to identify dominant themes contributing to a negative learning environment.
Methods: A qualitative study was performed using Delphi consensus technique to develop a discussion guide. Four focus groups were performed (n = 30 participants) with medical students, residents, nurses, and attending surgeons. Participants were selected using purposive-stratified criterion-based sampling.
Results: Multiple themes emerged: 1) unclear expectations for medical students; 2) passive mistreatment (neglect); 3) failure to integrate students into surgical team; 4) witnessed or experienced active mistreatment, 5) negative attitude of residents towards medical students' lack of knowledge.
Conclusions: Medical student mistreatment persists and is a threat to the learning environment and individual learning process. Passive mistreatment (neglect) represents the most distressing component of mistreatment. These findings suggest a need for education aimed at surgical residents and others in the learning environment.

Introduction

Approximately 20% of US medical students report mistreatment during their training.[1] Mistreatment has potential downstream effects on students with respect to mental health, job satisfaction, and career choice.[2–5] General surgery rotations tend to have a higher incidence of mistreatment reports compared to rotations in other medical specialties.[6] Medical students identify resident physicians as the primary source of mistreatment.[6,7] In addition, students have reported mistreatment of others (i.e. patients, other staff) by resident and attending physicians, nursing staff, and even medical students themselves, while on surgical rotations.[1]

Multiple studies have addressed the importance of the learning environment and its impact on the learner in the hospital setting.[8–10] Gan et al. found that students considered a suboptimal learning experience to be mistreatment, which negatively affected their learning.[11] Unwanted aspects of this learning environment, such as disrespect or direct attacks to a person, are modifiable and interventions are needed to promote a nurturing framework for medical students.[12] Prior studies have evaluated medical students' opinions and approaches to empower them to report mistreatment, but none were identified that attempted to assess and understand the topic from the other key players' standpoint in these interactions. We pursued an in-depth exploration of various perspectives of mistreatment from key players in general surgery clerkships. The primary aim of this study was to assess the impact of perceived mistreatment on the learning environment of medical students and to gain stakeholder input regarding possible approaches to address

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mistreatment in the learning environment. Specifically, we focused on identifying factors that contributed to mistreatment of medical students and factors in the educational, clerkship and surgical team framework that may contribute to such occurrences.

Materials and methods

Participants

To obtain different perspectives on the topics, we recruited focus group participants from among these key stakeholders in the surgical team. Medicals students, surgical residents, nurses and attending surgeons were considered the most important players on the routinely interactions during the surgery clerkship. Eligible participants included medical students that had already finished the surgery clerkship in the last 6 months, surgical residents in clinical rotations which had medical students participating as part of their clerkship, nurses that work in the surgical floors and faculty of the Department of Surgery. The Institutional Review Board (IRB) at Beth Israel Deaconess Medical Center determined that the study did not constitute human subjects research and was exempt from further review.

Discussion guide development

The Delphi method was used to develop a focus group discussion guide.[13] A review of prior studies and relevant literature was completed to inform the development of the initial interview guide. Two authors (MCA and AAW) performed this review in order to identify major themes about mistreatment and the learning environment. A panel of medical education experts reviewed the initial guide. This was done in successive rounds until consensus was reached among the expert participants in a Delphi process until a final discussion guide was developed.[13] A pilot was performed with a small number of medical students and residents. The guide (Appendix 1) was reviewed and we incorporated final recommendations from this pilot.

Focus groups

Four focus groups were conducted in total: 1 medical student focus group, 1 surgical resident focus group, 1 medical student/surgical resident focus group and 1 faculty/nurse focus group. The purpose of the mixed resident/student focus group was to show both parties the themes found in the initial focus groups to generate a discussion focused on solutions to the identified issues. Participating medical students had already finished their surgery clerkship, thereby reducing the risk of fear of retaliation. A description of the study and an invitation to participate in the focus groups were sent through email to all eligible participants. No consent forms were needed. We had a goal of 6 participants per focus group, with purposive selection aimed at recruiting an even number of male and female participants. All focus groups were held at the hospital. MCA led 3 focus groups and KMA led the faculty/nurses focus group. The discussion was centered on the experiences on the general surgery clerkship. In each focus group, snacks were offered before the start of the discussion. No monetary compensation was provided for participation.

Data analysis

All focus groups were audio-recorded. The recordings were then transcribed verbatim. MCA and DA read the transcripts individually. Immersion crystallization method was used to identify themes from the transcripts.[14] This method consists of cycles where the researchers immerse themselves into the data by reading the focus groups transcripts thoroughly, emerging to reflect on the analysis and to identify "crystallized" themes, until substantial and meaningful interpretations are obtained.[14] We discuss the data and emerging themes in multiple meetings, especially to resolve discrepancies. Themes were then grouped into overarching categories.

Results

We conducted one medical student focus group (N = 7 participants), one surgical resident focus group (N = 6), one mixed medical student/surgical resident focus group (N = 8, 4 students and 4 residents) and one faculty/nurse focus group (N = 8, 5 faculty and 3 nurses). The four focus groups had an average duration of 1.5 h. Participating medical students reported a variety of specialties as their career choice. Only one expressed a desire to go into general surgery residency. We reached thematic saturation after these focus groups. Data saturation was determined by repetitive comments or themes and the lack of new themes in the last focus group. Five themes emerged from the focus group discussions in 3 major categories: impressions of mistreatment as part of surgical culture, concerns about mistreatment's impact on the learning environment and thoughts on how to incorporate students into the team.

Category 1: mistreatment as part of the culture

> "*I love my surgical experience in spite of the way that [it] was being taught to me, in spite of not being involved with my team, the fact that I didn't have very high expectations…*"

Major themes and illustrative quotations are summarized in Table 1. Medical students, residents, attending surgeons and nurses agreed that the overarching issue with mistreatment is the current culture in surgery. All groups stated that surgical culture needed to change in order to find a lasting solution to current modes of mistreatment. Medical students expressed that they were aware of this culture, which generated lower expectations from their clerkship. All the participants stated that there were two types of mistreatment: active and passive. Residents considered active mistreatment to be detrimental at the personal level, but not in the academic level. The main example for active mistreatment was public humiliation.

In contrast, residents considered passive mistreatment in the form of neglect to be the most important factor in damaging the learning process. Medical students echoed that neglect represented a huge loss for their education. Attendings and residents wanted to be clear that when crisis occurred, taking care of the patient was the priority. Thus neglect was not intentional in these situations. Medical students were aware that during emergencies, education was not the priority. However, they emphasized that they were also at times ignored during non-emergency situations in the OR, rounds, and the surgical floor. Furthermore, all participants acknowledged that reporting mistreatment was difficult and depended on the "pecking order" or hierarchy. There was a clear fear of retaliation from those above them in rank. Students expressed they were afraid of being pointed out as complainers and did not trust the ombudsman. Residents were afraid of reporting witnessed mistreatment if senior residents were the perpetrators. Nurses echoed that they were uncomfortable with reporting mistreatment if witnessed. Policies regarding mistreatment were unfamiliar to both medical students and residents (although the medical school mistreatment policy is distributed annually to students, residents, and faculty, and also available on the medical school electronic portal). Both groups stated that they didn't have time to read the information or they considered it was not given to them in a useful manner.