# An Innovative Approach for Familiarizing Surgeons with Malpractice Litigation

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**OBJECTIVE:** Familiarize surgery residents with medicolegal knowledge and skills required when facing the prospect of being sued through a simulation session.

**DESIGN:** The general surgery residency, hospital risk management, and malpractice attorneys collaboratively organized an educational intervention, consisting of an introductory lecture followed by a mock lawsuit. Two medical malpractice attorneys acted as defense and plaintiff attorneys while an attending surgeon experienced in litigation acted as defendant. Experience, attitudes, and preintervention/postintervention competency were evaluated via retrospective self-assessment.

**SETTING:** Weekly departmental educational conference.

**PARTICIPANTS:** Forty residents and attending surgeons.

**RESULTS:** Among the participants, 27.5% had been named in a law suit before. Most surgeons (70.0%) are worried about malpractice. Physicians who had been sued were no more likely to worry about malpractice (18.6 vs 25.0%, $p = 0.82$) than their colleagues who had never been sued. Results from the retrospective preintervention/postintervention competency assessments demonstrated significant improvement in all measured competencies after the mock lawsuit. In comparison with attending faculty, residents obtained greater improvements in understanding the essential elements of a medical claim (1.9 vs 1.1, $p = 0.03$), gaining confidence doing a deposition for medical litigation (1.9 vs 0.9, $p < 0.01$) and understanding the do's and don'ts when named in a lawsuit (2.0 vs 1.1, $p = 0.01$).

**CONCLUSIONS:** The novel educational format effectively familiarized surgery faculty and residents with the process of litigation and improved their confidence and mental preparedness when facing the prospect of a lawsuit. It is a valuable educational tool that can be incorporated in residency training and faculty development curricula. (J Surg Ed 76:127−133. © 2018 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

**KEY WORDS:** Medicolegal, Mock trial, Nontechnical skills, Surgery, Residency training

**COMPETENCIES:** Patient Care, Medical Knowledge, Practice-Based Learning and Improvement, Systems-Based Practice, Professionalism, Interpersonal and Communication Skills

## INTRODUCTION

Malpractice litigation is a major concern for healthcare practitioners in the modern era. An estimated 9497 malpractice claims are filed annually in the United States, totaling $3,177,305,000 paid for these claims, representing an average of $334,559 per claim.[1] Each year about 7.4% of all US practicing physicians receive a malpractice claim. By the time a physician retires at the age of 65, the chances that he or she has been sued ranges from 75% to 99%.[2] General surgery is one of the specialties with the highest risk of litigation, with a 15.3% chance of being sued each year[2] and a significantly higher proportion of claims resulting in plaintiff settlement than low-risk specialties.[3]

While medical malpractice poses a very realistic burden to healthcare personnel, the lack of education on this topic generates an even greater anxiety among physicians. In a mail survey of 824 physicians, nearly all

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**Funding:** This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

  1931-7204/$30.00 https://doi.org/10.1016/j.jsurg.2018.06.002 

respondents reported practicing defensive medicine, resulting in clinically unnecessary resource expenditures.[4-6] This anxiety spreads from the faculty level down to physician trainees[7] and medical students,[8] and appears to disproportionately affect younger, not board certified, less clinically experienced, yet more clinically active physicians in high-risk specialties[9]; in other words, general surgery residents. This fear is not entirely unfounded: more than 1500 medical malpractice cases have been reported to involve residents between 1990 and 2004 alone.[10]

Despite the almost inevitable involvement with medical legal cases, there is little education on this topic during residency and faculty training. Moreover, there is an unfulfilled need to familiarize future surgeons with malpractice claims and the litigation process to increase their competency in facing them. Most resident physicians acquire their medical malpractice education from personal experience during residency training.[11] Residency programs have acknowledged the need for more education on medical legal issues, however, a time efficient and effective method is essential.[12] Traditional lecture-style didactics, while less time consuming are clearly less effective than teaching activities involving active audience participation and interaction.[13-15] Mock trials have been reported to be an effective teaching tool for medical malpractice issues in other specialties.[16] However, these events usually require long time blocks for participating residents to prepare and carry out, making them logistically difficult to arrange within general surgery residencies. In addition, having residents and law students enact the roles in these mock events may lead to compromised fidelity to real-life situations due to their lack of real-life litigation experience.[16,17]

An innovative joint educational intervention incorporating the general surgery residency program, hospital risk management department, and legal experts in malpractice litigation was designed to allow residents to acquire legal knowledge pertaining to medical malpractice claims and lawsuits, and experience life-like litigation process during a brief yet impactful training session.

## METHODS

### Study Design

This educational event was planned and executed by our institution's Accredited Education Institute which operates under the Department of Surgery. The study protocol, including the mock lawsuit protocol and research questionnaire, has been certified exempt by the Institutional Review Board.

### Study Setting and Subjects

The two-hour educational event was held on a single morning during protected time slotted for weekly conference. Study subjects consisted of all-level surgery residents and attending physicians who attended the entire event, and completed the study survey. Participants of the mock lawsuit included two attorneys specializing in medical litigation, who acted as defense and plaintiff attorneys, respectively; and a volunteer attending surgeon with personal experience in malpractice deposition and trial, who acted as the defendant.

### Education Session and Mock Lawsuit Protocol

During the first hour, one of the attorneys introduced and discussed several medical legal concepts including related definitions and statistics, insurance coverage limits and costs, rationale for choosing settlement versus going to trial, and the role of attorneys during the process. For example, legal definitions of concepts such as "standard of care" and "informed consent" according to California Civil Jury Instructions CACI 501 were explained. This was followed by a presentation by the hospital Chief Risk Management Officer, discussing tips on navigating the medical legal world within our university system with reference to recent internal cases and informing participants of campus resources.

All participants had received notes with background and clinical information on the mock trial, based on a real case (see Supplementary Data) a week in advance to use for preparation. A handout with the same information was also distributed to all participants at the beginning of the session. The case involved an elderly patient who presented with an acute abdomen and underwent laparoscopic cholecystectomy for presumed acute cholecystitis. However, his symptoms persisted requiring readmission for diverticulitis. The missed diagnosis and resulting treatment delays were the main focus of this mock lawsuit.

The mock lawsuit was separated into four, 15-minute components: deposition preparation, deposition, trial preparation and trial with the defense, and prosecution attorneys leading the corresponding activities. While it followed strict time limits and specific format, the dialogue was not scripted. Deposition preparation covered (1) definition, (2) differences from trial, (3) the plaintiff's agenda, and (4) physician strategies and behaviors when answering questions. For example, when asked a question, the defendant was instructed to "listen to the question, think about the question, and answer the question fully, completely, and honestly without offering additional information that can be used against you." In addition, the defense attorney provided positive and negative feedback regarding the posture, and tone the

defendant adopted when answering questions. During deposition, the plaintiff's attorney interrogated the defendant regarding details of the case in the presence of the defense attorney. A realistic depiction of a high-stakes situation was given. This was followed by a five-minute question and answer session.

The defense attorney met with the defendant again for trial preparation, explained differences in its setting and purpose from deposition and offered strategies and tips for optimal outcome. Additionally, he discussed strategies used by attorneys to sway the jury. Finally, after a very realistic mock trial the audience had an opportunity to ask questions and participate in open discussion. At the conclusion of the session, participants were asked to complete an anonymous survey on background information, experience and attitudes toward medical legal issues and perceptions of the course's educational efficacy in a retrospective pre-post test framework,[18–20] and provide feedback for the course (see Supplementary Data for actual questionnaire). Data from the retrospective pre-post test questions were summarized as averages and compared between pretest and posttest conditions using paired Student's t test. The data were collated and analyzed using Stata/MP 13.0 (StataCorp; College Station, Texas). A p value of $<0.05$ was set as our threshold for statistical significance.

## RESULTS

A total of 40 surgeons (8 attending surgeons, 1 fellow, and 31 surgery residents) were present in the entire session and completed the questionnaire. In addition to general surgeons, the audience also included trainees belonging to plastic surgery (n = 2), pediatric surgery (n = 1), neurosurgery (n = 1), one otolaryngology (n = 1), cardiac surgery (n = 1), and oromaxillofacial surgery (n = 1).

Most of the attending surgeons reported prior experience with malpractice litigation, with 6 (75%) attending surgeons having been named in a law suit before, 5 (62.5%) having provided medicolegal testimony, and five (62.5%) having given a deposition. No attending physician present had a license limitation due to medicolegal reasons. In regard to residents, 5 (15.6%) had previously been named in a law suit before, while none had prior experience testifying or taking depositions before a medicolegal court.

Regardless of their past experience with malpractice litigation, most surgeons (28/40 = 70.0%) worried about malpractice or being sued while 11 (27.5%) believed their enjoyment of medicine was affected by the prospect of being sued. Interestingly, surgeons who had been named in a law suit in the past were not more likely to worry about malpractice (18.6% vs 25.0%, p = 0.82) or have their enjoyment of medicine affected by the prospect of litigation (36.4% vs 24.1%, p = 0.44) than their colleagues who had never been sued before.

Results from the retrospective participant self-assessments are shown in Figure 1. Significant improvements in all assessed competencies were found. In comparison with attending faculty, residents obtained greater improvements in understanding the essential elements of a medical claim (1.9 vs 1.1, p = 0.032), gaining confidence doing a deposition for medical litigation (1.9 vs 0.9, p = 0.004), and understanding the do's and don'ts

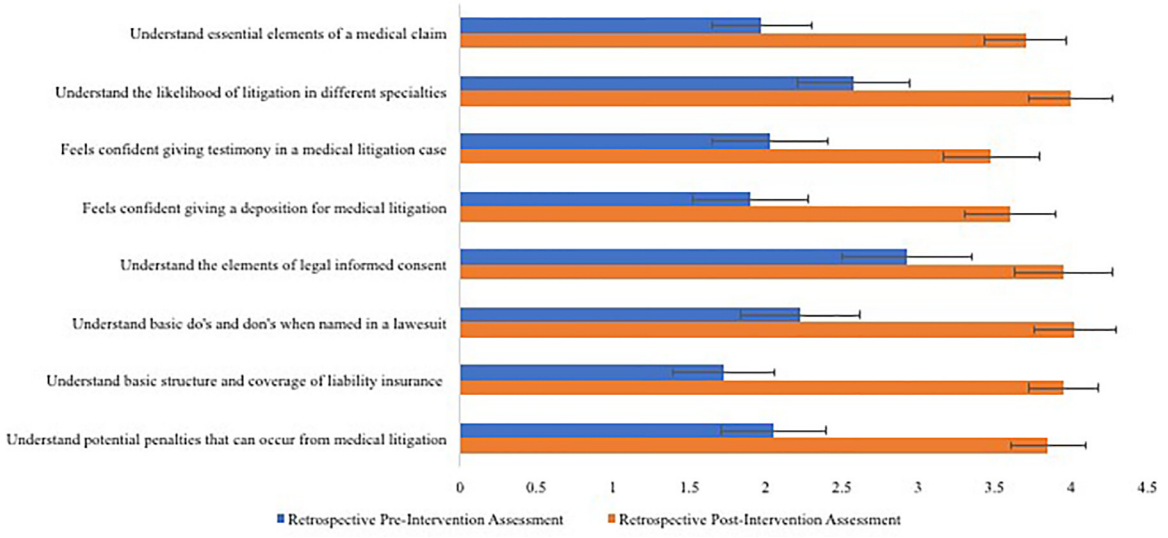


**FIGURE 1.** Mean postintervention and preintervention survey responses for the eight competencies for the entire cohort. Significant improvements for all measured competencies were observed after the educational intervention.

when named in a lawsuit (2.0 vs 1.1, p = 0.013; see Fig. 2). Predictably, physicians who had been sued before appeared to have acquired less new understanding regarding essential elements of a medical claim (1.0 vs 2.0, p = 0.003), do's and don'ts when named in a lawsuit (1.4 vs 2.5, p = 0.005) as well as structure and coverage of liability insurance at our institution (1.5 vs 2.5, p = 0.005). Physicians who claimed to worry about being sued or thought their enjoyment or medicine was affected by the prospect of being sued did not have any difference in self-rated improvement in competency level compared to their colleagues who answered "no" to these questions.

The most common response to the open-ended question regarding important points learned was being familiarized with the process of the actual lawsuit. The audience thought that the techniques in answering questions during deposition and trial were particularly helpful. When asked about which additional aspects of malpractice litigation they wished to see covered in future educational events, they expressed interest in learning more about the role of surgery trainees in malpractice litigations and the implications of specific behaviors before or during a lawsuit, e.g., forgetting details of the case or missing certain details in daily medical documentation. Finally, when asked how this educational event would influence their future practice behavior, most participants stated more thorough documentation, more scrupulous informed consent process, and closer collaboration with the hospital risk management team. Interestingly, there were no answers suggesting adoption of defensive medicine.

## DISCUSSION

An increasing level of anxiety among practicing physicians, medical students,[8] and residents[7] with regard to the prospect of malpractice litigation is frequently reported in the literature. While the exact magnitude of this anxiety is difficult to quantify, its attendant impact on healthcare costs in the form of defensive medicine is irrefutably real.[21] It is especially important to enhance mental preparedness among the next generation of surgeons in order to minimize the increased costs and worsened patient outcomes associated with defensive medicine.[22-24] We designed and implemented an innovative and effective way of familiarizing general surgery residents and faculty with important medicolegal concepts. Participants in our course were able to significantly improve their self-perceived knowledge and confidence when confronted with prospects of medical litigation. This educational benefit was more pronounced among residents than attending surgeons.

A recent survey to members of the American College of Surgeons showed that surgeons involved in malpractice lawsuit were younger, worked longer hours, and had more night call. In addition, lawsuits were strongly associated with burnout, depression, and decreased career satisfaction.[25] The results of our survey demonstrated that 70% of our course participants worried about malpractice litigation while close to half of those who did felt that their enjoyment of medicine was adversely affected by the prospect of a lawsuit. Interestingly, prior involvement in malpractice suits did not affect the level of anxiety nor perceived knowledge improvement during our session.

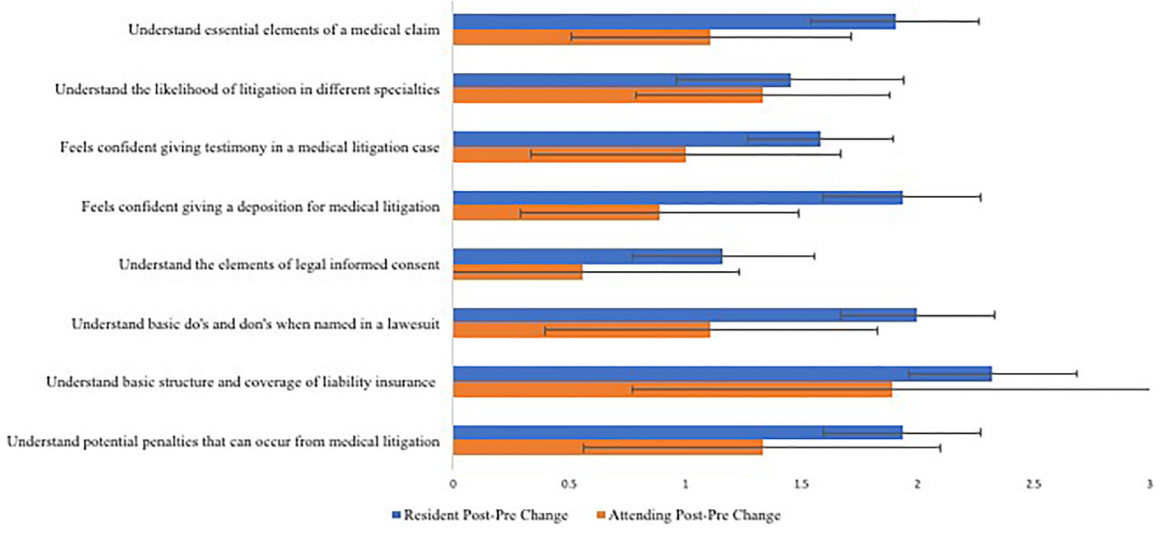


**FIGURE 2.** Comparison of postintervention-preintervention survey response changes between residents and attending physicians. Residents appear to gain more self-perceived knowledge and confidence improvement than attendings in the audience.

Recently, several medical institutions have described courses that address important facets of malpractice litigation via the enactment of a simulated courtroom, i.e., mock trial.[16,26-29] The primary objective of mock trials is to familiarize the audience with medical malpractice scenarios in a staged courtroom setting. Although mock deposition and trial may be more time- and resource-consuming than didactic teaching, adult learning theory,[30,31] and results of our study suggest that such techniques are helpful in augmenting and reinforcing understanding of these unfamiliar subjects. Physicians already involved in litigation had less educational benefit from this activity; however, the majority of participants did not have such experience as our audience included a large number of surgical trainees.

Most cited instances of mock trials in medical literature involve participation of law students playing roles of attorneys while medical students,[28] nursing students,[26] or residents[16] enact the roles of defendants. Such attempts, while successful at absorbing audience attention were associated with shortcomings, such as lack of fidelity to real-life scenarios due to participant inexperience. Our simulated setting was unique in 2 ways. First, we included a mock deposition in addition to courtroom proceedings as we were convinced that this represented a very different yet equally important experience commonly encountered by practicing physicians. Participants thought that a better understanding of the plaintiff's agenda behind a malpractice lawsuit was particularly enlightening. Second, we used a very experienced and well-respected attending surgeon along with two active professional malpractice attorneys to enact their respective roles. As demonstrated in our surveys, attending surgeons have significantly more experience with medical litigation than residents, and we believe the use of attending surgeons instead of trainees for role enactment brings more fidelity to the simulation and also allows for a more time-efficient demonstration of the legal proceedings essentials. We were able to incorporate several important teaching activities including segments of deposition and trial testimony in a two-hour session. The survey of audience experiences and attitudes revealed that participants found this modular approach effective and informative. In addition, we found the described educational intervention to be feasible with minimal cost. Aside from the time and effort volunteered by the residency program leadership, the hospital risk management department provided their input with no charge, and they perceived this session as a rare opportunity to provide a much-needed preventative risk minimization measure. In addition, the attorneys volunteered for this educational event and viewed it as an opportunity to demonstrate their expertise to an exclusive audience who may represent a future clientele.

We acknowledge several significant limitations to our current study. The use of a convenience and relatively small sample were unavoidable in this single-institution and single specialty pilot study. The limited audience sample size also prevented us from performing a comparative study whereby our recommended educational format could be evaluated against more prevalent forms of medicolegal education, such as traditional lectures or conventional mock trials where all roles are played by trainees. Furthermore, the content and delivery mechanism of our curriculum were specific to our institution, largely due to the state-specific nature of malpractice laws and differences inherently associated with the type of our healthcare facility. Finally, our competency evaluation was based on a retrospective self-assessment[32] instead of separate preinterventional and postinterventional survey. While this approach has been previously validated for competency appraisal,[18-20] bias risk stemming from poor self-awareness cannot be entirely avoided.[33]

In summary, our study has demonstrated the efficacy of a short educational session including a mock-trial simulation involving enactment by experienced professionals in improving resident and faculty self-perceived knowledge, and confidence related to managing medial litigation. Such standardized curriculum with didactic and simulation components in addition to measurable outcomes would likely fulfill the ACGME requirement for risk management competency,[34] while increasing surgeons' confidence in responding to the prospect of being sued.

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## SUPPLEMENTARY INFORMATION

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jsurg.2018.06.002.