

The Role of the Operating Room in Medical Student Education: Differing Perspectives of Learners and Educators

Rebecca O'Neill, BS, Michael Shapiro, MD, FACS and Aziz Merchant, MD, FACS

Department of Surgery, Rutgers-New Jersey Medical School, Newark, New Jersey

OBJECTIVE: The surgical clerkship is an integral part of third-year medical student education. The operating room (OR) is a heavily used setting, but it is unclear whether this setting is as effective as possible. To determine the role of the OR and potential improvements, it is necessary to analyze the perspectives of those involved, including surgeons, residents, and medical students.

DESIGN: An electronic survey was distributed to the surgeons, surgical residents, and third-year medical students associated with Rutgers New Jersey Medical School. The questions were a combination of 5-point Likert scale questions and qualitative responses. The questions assessed the role of the OR, the information taught in the OR, the quality of the teaching and environment, and potential improvements.

RESULTS: Attending surgeons and residents generally rated the OR more positively than medical students did. Medical students desired more hands-on participation and a greater focus on learning technical skills. In addition, most medical students rated the feedback and direct instruction in the OR as "poor." Furthermore, the attending surgeons and medical students disagreed about the main roles of the OR as well as the effectiveness of teaching in the OR. The medical students reported experiencing anxiety and intimidation in the OR and suggested several improvements, such as decreasing the length of the surgical clerkship.

CONCLUSIONS: There is significant disagreement between the surgeons and residents and the medical students regarding the roles and effectiveness of learning in the OR. This may help explain the reported medical student dissatisfaction and frustrations with the surgical

clerkship. (J Surg Ed ■■■■-■■■. © 2017 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: operating room, medical student education, surgical clerkship, survey

COMPETENCIES: Medical Knowledge, Practice-Based Learning and Improvement

INTRODUCTION

Medical students become well-rounded physicians through a multitude of experiences, from academic lectures to clinical rotations. During the third and fourth years of medical school, clinical rotations, or clerkships, are the focal points of medical education. The structure of a particular clerkship may be unique to their field. Different clerkships may employ different educational methods or involve various educational settings. These clinical experiences must be effective, efficient, and high quality to produce well-educated physicians. To assess the quality of the clerkship, one must investigate the components that encompass that clerkship, and whether they accomplish predetermined learning objectives.

Surgery is one of several specialties included in the third-year medical student curriculum. The surgical clerkship uses several educational methods and environments, including the operating room (OR), teaching rounds, and conferences such as Morbidity and Mortality Rounds. With many competing factors, including time, case complications that require greater focus, and simultaneous resident training, it is important to maximize the educational significance of these environments. The OR is often considered to be a vital component of the surgical clerkship, and therefore, it is essential to assess its role and importance in medical school education. Some medical school clerkship programs attempt

Correspondence: Inquiries to Aziz Merchant, MD, FACS, Department of Surgery, Rutgers-New Jersey Medical School, 185 South Orange Avenue, MSB G530, Newark, NJ 07103; fax: +(973) 972-6803; e-mail: Aziz.merchant@rutgers.edu

to assess the relevance and applicability of information gained in the OR to nonsurgical patient care. However, the assessment is a largely informal process that relies on conversations with attending surgeons and residents, mentorship meetings, and patient care conferences. Furthermore, there has been very little research on medical student learning in the OR and the appropriate role it should play in the surgical clerkship.

Most of the existing surgical education literature covers a wide range of other OR-related topics, including teaching strategies, how the OR influences interest in a surgical career, and the effect of OR learning on patient care and case time. Several studies, however, focus on student feedback regarding learning in the OR. In 2005, Redlich found from student feedback that they believed weaknesses to be a lack of case variety and a busy learning environment.¹ In 2013, Chapman's study discovered that medical students' dissatisfaction with their OR experience stemmed from a lack of preparedness and feelings of intimidation.² However, these results only reveal the experiences of students without feedback from surgeons or residents. In addition, the current literature does not investigate the content covered during OR learning.

In 2010, Irani found that only 9.8% of the total case time was spent teaching pre-established learning goals that included developing clinical and communication skills as well as understanding common symptoms and diseases.³ Instead, there was more emphasis on technical performance, especially that of residents. These studies raise a question regarding the role of the OR in medical student education and what content is emphasized during this time. Therefore, we must investigate the goals of the OR as well as determine what can be done to make the OR the most effective and efficient learning environment possible.

In addition, most studies related to this topic only rely on medical student input. To achieve a 360° analysis of the question at hand, attending surgeons and surgical residents must be included in the study, as well. Overall, there is very little research on what role the OR plays in medical student education and how these roles are perceived by attending surgeons, surgical residents, and third-year medical students.

METHODS

Study Population

The study protocol was approved by the Rutgers New Jersey Medical School Institutional Review Board. All study members were recruited from Rutgers New Jersey Medical School. Four separate populations were used for study groups: (1) attending surgeons, (2) surgical residents, (3) third-year medical students who have completed surgical clerkship, and (4) third-year medical students who have not yet begun surgical clerkship. The surgeon and resident participants were recruited from the Department of Surgery at Rutgers New

Jersey Medical School, and all student participants were recruited from Rutgers New Jersey Medical School.

The Rutgers New Jersey Medical School Department of Surgery has 55 faculty members involved in resident and medical student education. The general surgery residency program at Rutgers New Jersey Medical School accepts 8 categorical residents per year, with a total complement of approximately 50 residents in training, and is 5 clinical years in length. Rutgers New Jersey Medical School matriculates approximately 180 students per year. The ratio of male-to-female students is approximately 60:40. The Rutgers-NJMS curriculum consists of 2 years of basic science followed by 2 years of clerkships in a variety of medical fields, including surgery. The surgical clerkship is 8 weeks long and takes place at 5 different approved training sites. Before the start of the surgical clerkship, medical students receive a clear description of the goals and objectives of the rotation, outlined in the [Figure](#), and surgical residents receive a clear description of the goals and objectives for teaching medical students ([Appendix B](#)). The surgical clerkship includes time in the OR, teaching rounds, and conferences to expose medical students to all aspects of the field of surgery.

Questionnaire

An anonymous online survey was sent to surgeons, surgical residents, and third-year medical students to evaluate the views of medical students in the OR. The survey items were adapted from previous studies that evaluated surgical clerkships and medical student education.²⁻⁴ Out of a total of 55 questions from previous studies, 15 were chosen based on their relevance, as determined by the program director and assistant program director for the residency. The questions were selected, adapted, and revised through an iterative process. The survey consisted of 5-point Likert scale questions and quantitative response questions. The survey was designed to gather data about the role of the OR in medical student education. Specifically, participants were asked to describe their perceptions and recommendations about multiple aspects of the OR including its role in medical student education, the environment, the content discussed, and the feedback given to students.

Data were collected using an electronic survey and a data-gathering tool (Google.com/forms). An initial e-mail was sent to participants with an informed consent letter that stated the objectives of the study and rights as a participant,

- Mastery of clinical knowledge with integration of basic sciences
- Excellence in clinical skills and diagnostic decision-making
- Excellence in professionalism and humanism
- Commitment to health of the community and appreciation of social, functional, and cultural diversity
- Commitment to lifelong learning
- Development of effective skills in education and communication

FIGURE. Goals and objectives of the NJMS surgical clerkship.

Download English Version:

<https://daneshyari.com/en/article/8834752>

Download Persian Version:

<https://daneshyari.com/article/8834752>

[Daneshyari.com](https://daneshyari.com)