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# Evaluating Surgical Residents' Patient-Centered Communication Skills: Practical Alternatives to the "Apprenticeship Model"

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**OBJECTIVES:** The Accreditation Council for Graduate Medical Education (ACGME) requires residency programs to assess communication skills and provide feedback to residents. We aimed to develop a feasible data collection process that generates objective clinical performance information to guide training activities, inform ACGME milestone evaluations, and validate assessment instruments.

**DESIGN:** Residents care for patients in the surgical clinic and in the hospital, and participate in a communication curriculum providing practice with standardized patients (SPs). We measured perception of resident communication using the 14-item Communication Assessment Tool (CAT), collecting data from patients at the surgery clinic and surgical wards in the hospital, and from SP encounters during simulated training scenarios. We developed a handout of CAT example behaviors to guide patients completing the communication assessment.

**SETTING:** Independent academic medical center.

**PARTICIPANTS:** General surgery residents.

**RESULTS:** The primary outcome is the percentage of total items patients rated "excellent;" we collected data on 24 of 25 residents. Outpatient evaluations resulted in significantly higher scores (mean 84.5% vs. 68.6%, $p < 0.001$), and female patients provided nearly statistically significantly higher ratings (mean 85.2% vs. 76.7%, $p = 0.084$). In multivariate analysis, after controlling for patient gender, visit reason, and race, (1) residents' CAT scores from SPs in simulation were independently associated with communication assessments in their concurrent patient population ($p = 0.017$), and (2) receiving CAT example instructions was associated with a lower percentage of excellent ratings by 9.3% ($p = 0.047$).

**CONCLUSIONS:** Our data collection process provides a model for obtaining meaningful information about resident communication proficiency. CAT evaluations of surgical residents by the inpatient population had not previously been described in the literature; our results provide important insight into relationships between the evaluations provided by inpatients, clinic patients, and SPs in simulation. Our example behaviors guide shows promise for addressing a common concern, minimizing ceiling effects when measuring physician-patient communication. (J Surg Ed ▮:▮▮▮-▮▮▮. © 2017 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

**KEY WORDS:** communication skills, surgical resident evaluation, ACGME competencies, communication assessment, patient feedback

**COMPETENCIES:** Interpersonal and Communication Skills, Professionalism

## INTRODUCTION

The Accreditation Council for Graduate Medical Education (ACGME) milestone measures of general surgery competencies include interpersonal and communication skills and professionalism, in addition to more traditional attributes

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like medical knowledge and patient care.[1] The ACGME requires residency programs to document the formal process by which they assess competency, provide feedback, and adapt training to address skills gaps.[2] Communication skills training during residency is infrequent and labor intensive and attending physician feedback on communication skills is intermittent.[3,4] Training frequently occurs at the bedside with attendings or senior residents modeling these skills for junior residents, in a process similar to the generational transmission of culture.[5]

Likewise, assessment of communication skills is challenging for residency program directors and educators. Historically, assessments of residents' professionalism and interpersonal and communication skills have been based on the apprenticeship model, and as such is often unstandardized and based on subjective judgments.[6] Other workplace-based communication performance assessment methods include ad hoc observation of patient-resident interactions, discussions of clinical cases, and feedback from peers and coworkers. To generate more standardized evaluation, residency programs use validated assessment tools completed by standardized patients (SPs) following simulated patient-doctor engagement.[7-12]

The benefit of convenience of the apprenticeship model is offset by its subjective nature, while the objectivity gained from simulated scenarios and standardized assessments must be balanced by the intensity of resources required to collect such assessments. We initiated a curriculum to enhance and evaluate trainees' communications skills. We aimed to develop a feasible multisource feedback data collection process to generate objective information about clinical performance. We hoped to more appropriately guide our resident training activities, inform ACGME milestone evaluations, and validate our assessment instruments. We optimized real-world strategies to objectively measure residents' communication abilities with surgical patients.

# METHODS

## Setting and Context

The General Surgery Residency Program at Inova Fairfax Medical Campus includes 25 residents. As a level I trauma center and 900-bed tertiary care referral center, the program provides the entire breadth of training in all surgical specialties. Throughout their 5 years of residency, residents participate in a communication curriculum, described elsewhere,[11] providing didactic presentations, ongoing skills practice with SPs, and facilitated group discussions at every quarterly module. SPs provide verbal feedback following role plays and complete standardized annual assessments of residents' skills.

Beginning in the internship year and throughout the residency, surgical residents care for patients in the surgical clinic approximately 3-4 hours each week and round on patients in the hospital almost every day, providing continual opportunities for formalized assessments of their patient-centered communication skills.

## Instruments

We measured SP and patient perception of communication with the resident using the 14-item Communication Assessment Tool (CAT), a previously validated instrument developed as a patient assessment of physician interpersonal communication skills.[13] The CAT was initially developed and tested in an outpatient office setting and has been successfully used in a variety of practice areas, validated for use in simulation,[12-14] and recommended for inclusion in the ACGME toolbox by the ACGME Advisory Committee on Educational Outcome Assessment.[15] To our knowledge, this is the first report of use of the CAT in the inpatient setting with surgical residents.

In addition to the CAT, we collected information related to basic demographics of the patients completing the survey (age, race, sex, and insurance), reason for hospitalization or clinic visit, and length of hospital stay or time since surgery. No protected health information was collected from patients, and this project was determined to be exempt by the Inova Office of Research Institutional Review Board under Category 1, Research conducted in established educational settings. We obtained consent from the surgical residents for participation in the research portion of the curriculum; residents were mandated to participate in the communication curriculum but were allowed to opt out of including their data in research analyses. All residents opted to participate in the research study.

## Data Collection

We collected data from a sample of adult English-speaking surgery patients at the acute care surgery (ACS) clinic, the surgical wards in the hospital, and from residents' annual SP encounters during the simulated training scenarios. Data collection processes during simulation have been described in detail elsewhere.[11,12]

### Clinic Data

Beginning in April 2016, the research associate (RA) collected weekly paper surveys from the outpatient ACS clinic. Residents rotate through the ACS clinic 1 month at a time on Friday afternoons, and the RA was present to survey patients most Fridays during the 13-month data collection period. Residents were informed that the RA would be surveying their patients regarding their communication and were provided an example of the tool. We determined that transparency with the residents regarding our engagement with their patients in the clinic was more important than any biased behavior this knowledge would provoke, such as the Hawthorne effect, due to our desire to