Impact of a Video-Based Interactive Workshop on Unprofessional Behaviors Among Internal Medicine Residents

Aashish Didwania, MD
Jeanne M. Farnan, MD
Liza Icayan, MD
Kevin J. O'Leary, MD, MS
Mark Saathoff, MA
Shashi Bellam, MD
Holly J. Humphrey, MD
Diane B. Wayne, MD
Vineet M. Arora, MD, MAPP

ABSTRACT

Background Unprofessional behaviors undermine the hospital learning environment and the quality of patient care.

Objective To assess the impact of an interactive workshop on the perceptions of and self-reported participation in unprofessional behaviors.

Methods We conducted a pre-post survey study at 3 internal medicine residency programs. For the workshop we identified unprofessional behaviors related to on-call etiquette: "blocking" an admission, disparaging a colleague, and misrepresenting a test as urgent. Formal debriefing tools were utilized to guide the discussion. We fielded an internally developed 20-item survey on perception and participation in unprofessional behaviors prior to the workshop. An online "booster" quiz was delivered at 4 months postworkshop, and the 20-item survey was repeated at 9 months postworkshop. Results were compared to a previously published control from the same institutions, which showed that perceptions of unprofessional behavior did not change and participation in the behaviors worsened over the internship.

Results Of 237 eligible residents, 181 (76%) completed both pre- and postsurvey. Residents perceived blocking an admission and the misrepresentation of a test as urgent to be more unprofessional at a 9-month follow-up (2.0 versus 1.74 and 2.63 versus 2.28, respectively; $P < .05$), with no change in perception for disparaging a colleague. Participation in unprofessional behaviors did not decrease after the workshop, with the exception of misrepresenting a test as urgent (61% versus 50%, $P = .019$).

Conclusions The results of this multi-site study indicate that an interactive workshop can change perception and may lower participation in some unprofessional behaviors.

Introduction

A growing body of literature[1–4] links unprofessional behaviors to poor patient care, a negative learning environment, and reduced physician well-being. In 2013, the Accreditation Council for Graduate Medical Education[5,6] expanded its standards regarding professionalism by requiring that program directors and institutions ensure "a culture of professionalism that supports patient safety and personal responsibility." Despite the emphasis, professionalism remains inadequately addressed in medical education. Challenges to developing curricula have included finding effective formats, identifying specific behaviors, and measuring meaningful outcomes.[7–15]

In earlier work,[16–19] we identified unprofessional behaviors based on surveys of students, postgraduate year 1 (PGY-1) residents, and hospitalists. We found significant rates of participation in certain unprofessional behaviors by PGY-1 internal medicine residents, and that these behaviors worsened over the course of PGY-1.[18] The 3 most frequently cited unprofessional behaviors were "blocking" or "turfing" an admission, disparaging a colleague, and misrepresenting a test as urgent.[17,18]

The aim of this study was to assess the impact of an interactive workshop and booster quiz on internal medicine residents' perceptions of and self-reported participation in specific unprofessional behaviors.

Methods

Study Design

This multi-institutional, pre-post survey was conducted at University of Chicago Pritzker School of Medicine, Northwestern University Feinberg School of Medicine, and NorthShore University HealthSystem. Internal medicine resident physicians in PGY-1, PGY-2, and PGY-3 were invited to a 75-minute workshop scheduled between October and December 2011. Residents provided informed consent, and survey responses were anonymous.

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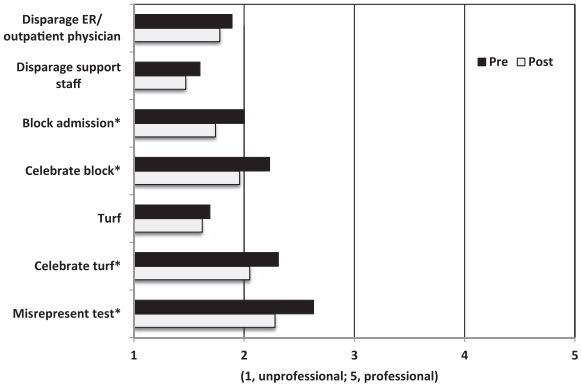

FIGURE 1
Perception of On-Call Behaviors

Note: FIGURE 1 shows unadjusted values. Significance remains in multivariate regression controlling for site.

* $P < .05$.

At the start of the workshop, residents completed a 20-item survey assessing perceptions of, observation of, and participation in various unprofessional behaviors (provided as online supplemental material). The original survey was developed for medical students and subsequently modified to ascertain unprofessional behavior among PGY-1 residents. Survey domains included fraud, shift work mentality and duty hours, and on-call etiquette. Participants rated their perception of each behavior from 1 (unprofessional) to 5 (professional) and reported their observation of and participation in each behavior. Items were written in a fashion to elicit the "unprofessional" nature (ie, blocking an admission that could be appropriate for your service).

The workshop used 2 of 3 case-based video vignettes depicting unprofessional scenarios known to increase during internship (blocking or turfing an admission, disparaging a colleague, and misrepresenting a test as urgent[18]). Each site used a different set of 2 videos so that each scenario was used at 2 different sites. Video script development included external reviewers, trainees, and faculty experts in education and professionalism. Videos were filmed with a professional videographer, and actors were coached by a resident physician who is a former professional actress.

Following each video, small group discussions were held and followed by large group debriefs. A faculty member from each institution (A.D., L.I., V.M.A.), along with a chief resident, facilitated discussion using a standardized debriefing tool that included a breakdown of characters in each video and an opportunity to list positive and negative behaviors (provided as online supplemental material). Discussion questions on observed behaviors asked why they may have manifested, how they affect patient care and education, and how they could be changed. The workshop concluded with summary statements on self-monitoring of professional behaviors.

In March 2012, residents received an e-mail containing a quiz consisting of 3 multiple-choice questions with feedback based on the videos used during the workshop. Residents were e-mailed 3 times over 1 month and were not required to complete the quiz. To assess the impact of the intervention, residents again completed the professionalism survey between June and August 2012. Evidence for discriminant validity was established for survey items in a prior study[20] of a video-based educational intervention with hospitalists.

The Institutional Review Board of each institution approved this study.

Data Analysis

Descriptive statistics were used to summarize the perceptions of unprofessional behavior at baseline (pre) and after the intervention (post), and for the reported participation in these behaviors. Chi-square tests were used to compare pre- and postintervention responses by site. Data analyses were limited to subjects who completed both pre- and postintervention surveys.

Site-adjusted multivariable regression analysis was used to examine associations between the postintervention period and the perceptions of and participation in the 3 specific unprofessional behaviors. Data were analyzed using Stata version 11.0 (StataCorp LLC, College Station, TX), and statistical significance was defined as $P < .05$.

Results

Of 237 eligible residents at the 3 institutions, 181 (76%) completed both the pre- and postsurvey. Only PGY-1 residents from the University of Chicago participated in the study, while residents from all 3 classes participated at the other 2 sites. Of the overall sample, 98 (54%) were female and 96 (53%) were PGY-1 residents.

Residents reported on 7 behaviors that correlated to the unprofessional behaviors shown in the videos. Baseline survey results indicated that the mean perception of all 7 behaviors (except misrepresenting a test) were in the "somewhat unprofessional" to "unprofessional" range (FIGURE 1). Participation in unprofessional behaviors ranged from 6% (turfing) to 61% (misrepresenting a test; FIGURE 2).

In all pre- and postintervention survey results, 4 behaviors were rated more unprofessional after the workshop (all $P < .05$), and the remaining 3 behaviors

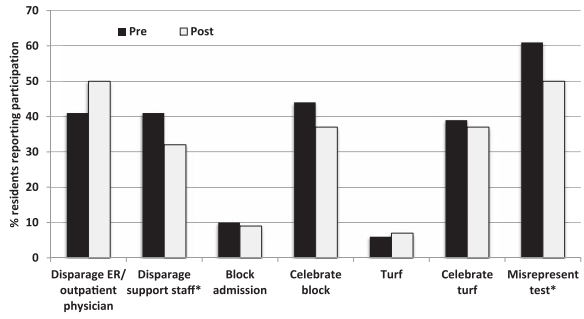

FIGURE 2
Reported Participation in Unprofessional Behavior

Note: FIGURE 2 shows unadjusted values. Significance remains in multivariate regression controlling for site.

* $P < .05$.

showed no statistically significant change in perception. Blocking an admission, celebrating a blocked admission or a "turf," and misrepresenting a test as urgent were all perceived to be more unprofessional. Participation in unprofessional behaviors did not significantly decrease after the workshop, with the exception of misrepresenting a test as urgent (61% versus 50%, $P = .019$).

When we performed multivariable regression controlling for site, all of the significant findings remained significant.

Discussion

In this study of a 75-minute workshop and a 4-month follow-up booster quiz of internal medicine residents targeting specific unprofessional behaviors, perceptions and reported participation in targeted behaviors showed modest improvement at the 9-month follow-up.

Themes that arose during resident workshops likely explain some of the impact the workshop had on residents' perception and participation. Workshop discussions included the influence of faculty, system pressures, residents as role models, and professionalism's direct effect on patient care. Large group debriefs included how to reflect and provide feedback for system change, rather than act unprofessionally. Discussions reflected how unprofessional behavior may affect patient care through physician-patient communication and physician-physician role modeling. An interview study[21] of "turfed" patients found that these patients had different care experiences, including the tone of the physician interview. This was echoed by residents in our study.

Our study has several limitations, including lack of a control. The worsening of unprofessional behavior seen in a PGY-1 historical control group, surveyed 3 years earlier, was used for comparison to support the stability in behaviors as an improvement.[18] In addition, with PGY-1s representing slightly over half the participants, the lower rates of participation in blocking or turfing an admission likely reflect the limited role PGY-1 residents play in the final triage decision. Finally, our study is limited to the measurement of perception and self-reported participation, and responses may be subject to social desirability bias. Follow-up studies are needed to measure professional behavior in actual practice.

We have continued the workshop annually in all 3 residency programs since its inception and hope to further study its longitudinal effects on professional behaviors.

Conclusion

The results of this multi-site study indicate that an interactive, video-based workshop can change perception and may prevent increasing participation in unprofessional behavior as residents progress through PGY-1.

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Aashish Didwania, MD, is Associate Professor, Residency Director, and Associate Vice Chair of Education, Northwestern University; **Jeanne M. Farnan, MD,** is Associate Professor and Assistant Dean for Curricular Development and Evaluation, University of Chicago; **Liza Icayan, MD,** is Assistant Professor and Residency Director, NorthShore University HealthSystem; **Kevin J. O'Leary, MD, MS,** is Associate Professor and Division Chief of Hospital Medicine, Northwestern University; **Mark Saathoff, MA,** is Course Director and Administrator, University of Chicago; **Shashi Bellam, MD,** is Assistant Professor, NorthShore University HealthSystem; **Holly J. Humphrey, MD,** is Professor of Medicine and Dean of Medical Education, University of Chicago; **Diane B. Wayne, MD,** is Professor of Medicine and Vice Dean of Education, Feinberg School of Medicine, Northwestern University; and **Vineet M. Arora, MD, MAPP,** is Associate Professor of Medicine, Assistant Dean for Scholarship and Discovery, and Director of Graduate Medical Education Clinical Learning Environment Innovation, University of Chicago.

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Corresponding author: Aashish Didwania, MD, Northwestern Memorial Hospital, Galter 3-150, 251 E. Huron Street, Chicago, IL 60611, 312.926.3674, fax 312.926.6905, aashish@northwestern.edu

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