

A Medical Interviewing Curriculum Intervention for Medical Students' Assessment of Suicide Risk

Jess G. Fiedorowicz, M.D., Ph.D., Jodi Tate, M.D., Anthony C. Miller, M.D.
Ellen M. Franklin, M.A., M.B.A., M.M.E., Ryan Gourley, B.S., B.A.
Marcy Rosenbaum, Ph.D.

Objective: *Effective communication strategies are required to assess suicide risk. The authors determined whether a 2-hour simulated-patient activity during a psychiatry clerkship improved self-assessment of medical interviewing skills relevant to suicide risk-assessment.*

Methods: *In the 2-hour simulated-patient intervention, at least one psychiatrist, a non-clinician communication expert, and a specifically-trained simulated patient worked with groups of 4–6 students to address student-identified challenges with patient encounters involving suicide risk-assessment. Six of twelve clerkships between July 2010 and October 2011 were assigned to this educational intervention in addition to a communications curriculum.*

Results: *On a retrospective pre–post self-assessment, the 61 of 118 students assigned to the intervention group reported greater improvements in relevant skills. The process of discovering/responding to patients' feelings and identifying/addressing verbal and nonverbal cues specifically improved.*

Conclusion: *The psychiatry clerkship provides a unique opportunity to reinforce and develop communications skills with a formal, skills-based curriculum.*

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Received November 15, 2011; revised February 15 and May 11, 2012; accepted May 14, 2012. From the Dept. of Psychiatry (JGF, JT, ACM), Dept. of Family Medicine (MR), Dept. of Internal Medicine (JGF), Roy J. and Lucille A. Carver College of Medicine (EMF, RG), Dept. of Epidemiology (JGF), The University of Iowa, Iowa City, IA. Send correspondence to Dr. Fiedorowicz; e-mail: jess-fiedorowicz@uiowa.edu

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Communication skills are of critical importance to the practice of medicine and can improve satisfaction and outcomes, while allowing physicians to more effectively gather needed information for clinical decision-making. Often, the teaching of process skills (how to effectively gather and convey information) is divorced from content aspects of the interview (what information to gather and convey). Integration of content with process is critical to teaching effective interviewing as a practical skill (1). Extending training in communication into the clinical portions of the curriculum has been demonstrated to improve skills (2) and may avoid the potential deterioration in communication skills previously described over the early clinical years of medical training (3).

The Calgary–Cambridge Guide to the Medical Interview (4) provides a skills-based method for learning and teaching clinical communication skills. The model wedds teaching of process with the content needed for effective medical interviewing. Consistent with proposals for better integration (1), we extended this skills-based approach to learning communications skills from preclinical training to the psychiatry clerkship, centered around completing a suicide risk-assessment.

Conducting an interview to assess suicide risk is an advanced skill and is broadly relevant to medical practice, but suicide risk cannot be readily quantified (5). Education of primary-care physicians is one of two strategies with established evidence for preventing suicide (6). Yet simple screening for suicidal ideation is often not performed; suicidal thoughts may not be revealed without direct questioning; and training can improve detection (5).

We sought to determine whether a simulated-patient activity to assess suicide risk provides additional benefit to a psychiatry clerkship's medical interviewing curriculum.

We hypothesized that the simulated-patient activity would improve self-reported and observed communication skills without adversely affecting the overall experience in an already-compressed clerkship.

Method

Curriculum

Beginning in the first year of training, the medical-interviewing curriculum at the University of Iowa Roy J. and Lucille A. Carver College of Medicine uses the skills-based approach of the Calgary–Cambridge Guide to the Medical Interview (4). Incorporating this training into the clerkships is part of an effort to longitudinally reinforce and enhance interviewing skills throughout the 4-year undergraduate medical curriculum. The relevant curriculum for the psychiatry clerkship (4 weeks, required in the third or fourth year) involves four components:

1. Didactic component (Week 1 or 2): Students are provided with a book titled *Therapeutic Communication* (7), and an unabbreviated version of a journal article (5), and they receive a 30-minute lecture on suicide risk-assessment.
2. Formalized feedback from resident or attending staff on observed clinical interviews of real patients.
3. Review of videotaped, performance-based assessment with a standardized patient, with feedback from resident or attending staff (Week 4).
4. Two-hour simulated-patient activity (Week 2): a psychiatrist (JGF, JT, ACM) and a non-clinician communication expert (EMF, RG, MR) facilitated this activity, using the agenda-led, outcomes-based analysis to small-group teaching, as outlined by Kurtz, Silverman, and Draper (4). The activity is focused on student-identified challenges in interviewing a patient presenting after intentional overdose, and it is designed to be non-threatening. Students, in groups of 4–6, take turns interacting with the specially-trained simulated patient for a few minutes, with each turn followed by group feedback, discussion, and re-rehearsal in role-play.

Design

Medical students rotate through the psychiatry clerkship in 4-week blocks or rotations. We assigned 6 of 12 rotations to receive the aforementioned simulated-patient activity. The first and last rotations of the academic year were not included in the study. All rotations received the other three components of the clerkship communications curriculum.

Implementation

As part of an institutional review board-approved protocol, all 145 students in the 12 selected clerkships assigned to the University of Iowa Hospitals and Clinics were invited to complete a retrospective pre–post assessment of their communications skills at the close of the clerkship. Students were informed that the data collection was part of a research study and that participation was optional. There were no exclusion criteria.

Statistical Analysis

Analyses were conducted with SAS Version 9.3. A pre–post retrospective skills assessment served as the *a priori* primary outcome. Differences in change in the total score from the 7-item retrospective pre–post test were compared by the Wilcoxon rank-sum test (ordinal data). Item-level analysis followed significant findings. Each item was rated on a 6-point ordinal scale (Always, Almost Always, Mostly, Sometimes, Seldom, Never). Five specific communications-skill items included 1) discovering/responding to patient's feelings; 2) identifying/addressing verbal and nonverbal cues; 3) facilitating/clarifying; 4) asking direct questions regarding depression and suicide risk; and 5) avoiding premature reassurance. Two composite skills related to comfort in communicating with patients with mental illness and comfort in conducting a suicide-risk assessment. Secondary outcomes included the communications score from the performance-based assessment activity (Week 3), student ratings of the simulated-patient educational activity itself, and the overall clerkship rating. Because the communications score from the performance-based assessment (ceiling effects, left skew) and overall clerkship rating violate the assumption of normality, the nonparametric Wilcoxon rank-sum test was similarly used to compare groups on these measures.

Results

A total of 118 students consented to the study (81% participation rate), 61 students from the intervention rotations and 57 students from the control rotations. There were no significant differences by group in gender or year of training.

Students in the intervention group reported substantially greater improvements relative to the control group in relevant skills on our primary outcome ($z=2.34$; $p=0.02$). On follow-up analysis, two individual items showed greater improvement in the intervention group: discovering and responding to patient's feelings ($z = -2.67$; $p=0.008$) and identifying/addressing verbal and nonverbal cues ($z = -2.21$;

$p=0.03$). An additional two items showed marginally greater improvement in the intervention group: avoiding premature reassurance ($z = -1.77$; $p=0.08$) and feeling comfortable communicating with patients with mental illness ($z = -1.78$; $p=0.07$). The intervention group received a nonsignificantly higher communication score on the performance-based assessment the following week. This score ranges from 0–100 (higher=better), has some ceiling effects, and is rated by a variety of standardized patients. The intervention group had a mean (SD; interquartile range) score of 88.4 (8.0; 84–95), whereas the control group scored 86.1 (9.5; 82–92; $z = -1.23$; NS). The intervention received high educational ratings: 4.95/5 compared with an average rating of other clerkship education activities (e.g., lectures) of 4.56/5 using the same rating form. Given the different nature and duration of this activity, direct statistical contrasts were deferred. The overall clerkship rating (unit of analysis=rotation) did not differ between the intervention and control rotations.

Review of qualitative feedback from students revealed the following themes: positive experience, useful rehearsal, and comfort. Several students described the experience positively with statements such as “I enjoyed the chance to practice my interviewing skills” and “glad we had this opportunity.” Students found the activity useful to integrate patient-care experiences, “. . . they were very helpful and a way to practice what I had been seeing on the floors.” Students also noted the emphasis on rehearsal, for example, commenting, “I have low expectations for these sessions, but this was extremely helpful—reviewing what to look for and trying it in action” and “you could directly address questions you had and try them.” Students also appreciated efforts to create a supportive learning environment, as expressed by “made a tough subject more comfortable” and “helpful and non-threatening atmosphere.” Only one student expressed discomfort with the group format, feeling “put on the spot,” whereas others noted the benefits of this format: “It helps a lot to watch other people do interviews. . . to develop the phraseology that I can use for patients.”

Discussion

A simulated-patient activity to facilitate learning medical interviewing improved self-assessment of communication skills over the course of a psychiatry clerkship. This supports the idea that specific communication skills relevant to medical practice can be taught to medical students. These findings should encourage efforts to integrate the teaching of content and process and extend teaching of effective communication in the medical interview into the clinical

years of undergraduate medical education. The advanced repertoire of skills rehearsed in this educational activity is directly relevant to suicide risk-assessment—an important, but daunting, clinical task for physicians. Through the intervention, we hoped to demystify the process while emphasizing the need for an individualized understanding.

Strengths of our study include the relatively large sample of students, use of an appropriate control group, who had an equivalent educational experience apart from the intervention under study, and the *a priori* establishment of primary and secondary outcomes. Furthermore, our outcome assessment was completed at the close of the clerkship, more than 2 weeks after the intervention.

In another medical-interviewing educational intervention for the psychiatry clerkship, Nuzzarello and Birndorf (8) found that an interviewing course wherein students received feedback on directly-observed interviews with real patients resulted in greater self-rated interviewing skills, as compared with a nonequivalent control group. The benefits of receiving feedback on observed interviews may persist beyond short-term and subjective outcomes. In a longitudinal study of 36 doctors, half of whom had been randomized to receive feedback on videotaped interviews during their psychiatry clerkship, those with such training performed better than controls on blind ratings of follow-up interviews approximately 5 years later (9). Our similarly positive results extend previous research in this area through use of a large sample with an equivalent control group.

There are a number of important limitations to this study. Although we assigned by clerkship group to minimize experimental contamination, students could have been aware of the intervention under study. We attempted to mitigate this risk by using consent materials that did not provide information on study design or assignment. We used a retrospective pre–post test format because students may not have been aware of what skills they had not developed before the intervention with an enhanced understanding of the material. Potential drawbacks of this approach include recall bias, social desirability bias, and effort justification bias. With all other aspects of the curriculum maintained for the control group and more than 2 weeks between the studied intervention and assessment, this bias could yield self-reported improvements in both groups. The primary outcome was measured by self-report, and significant differences were not seen in our secondary standardized patient-rated outcome, although the nature of this measure may have limited our ability to detect differences between groups.

The psychiatry clerkship provides a unique opportunity to reinforce previously-learned medical interviewing skills

and develop a more advanced repertoire of skills. Use of a formal, skills-based communications curriculum, such as that provided through the Calgary–Cambridge Guide, may improve this critical set of skills. These skills may be useful for the assessment of suicide risk, an important task for which physicians may lack adequate training (10).

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