MedEdPORTAL®
The Journal of Teaching and Learning Resources

Original Publication

Four-Station Group Observed Structured Clinical Encounter for Formative Assessment of Communication Skills for Internal Medicine Clerks

Allison Ludwig, MD*, Rosa Lee, MD, Sharon Parish, MD, Amanda Raff, MD
*Corresponding author: Allison.Ludwig@einstein.yu.edu

Citation: Ludwig A, Lee R, Parish S, Raff A. Four-station group observed structured clinical encounter for formative assessment of communication skills for internal medicine clerks. *MedEdPORTAL*. 2016;12:10444. https://doi.org/10.15766/mep_2374-8265.10444

Abstract

Introduction: Communication with patients and among colleagues is critical to effective clinical care. A group observed structured clinical encounter (GOSCE) is an effective and resource-saving tool for teaching communication skills to medical students. While objective structured clinical exams (OSCEs) are a well-established assessment tool for communication skills, a GOSCE allows for formal observation of communication skills while also providing an opportunity for peer observation and feedback. Additionally, a GOSCE costs less and requires fewer faculty per learner than a traditional OSCE. **Methods:** This is a four-station GOSCE to teach advanced communication skills to medical students. The stations are smoking cessation, difficult doctor-patient encounter, shared decision making, and delivering bad news. A group is made up of four to six students and one faculty member. At each station, one student takes the lead in the patient interview, followed by a group interview and ending with feedback by all participants. **Results:** In the pilot phase, a total of 44 students were administered the GOSCE and were surveyed about their experience. Students felt the GOSCE was an enjoyable and educational experience. The GOSCE has subsequently been administered to more than 600 students, and 25 internal medicine faculty have participated. **Discussion:** Our work demonstrates that the GOSCE is a feasible curricular enhancement for formative assessment of communication skills during the internal medicine clerkship. It is easy to implement and has been well received by all participants, with minimal impact on limited medical school and faculty resources.

Keywords

Feedback, OSCE, Communication, Group Observed Structured Clinical Encounter

Educational Objectives

At the end of this group observed structured clinical encounter, students should be able to:

1. Motivate a patient to consider quitting smoking.
2. Illustrate how to deal with an angry patient who expects antibiotic treatment for her upper respiratory tract symptoms.
3. Identify a patient's goals and concerns regarding treatment for diabetes mellitus and establish a partnership by building consensus on a preferred treatment plan.
4. Demonstrate empathic delivery of bad news to a patient.
5. Practice patient communication within a group.
6. Demonstrate the delivery of specific and effective feedback to peers.

Introduction

Communication skills with patients and among colleagues are fundamental skills required of physicians. These skills are formally taught throughout the undergraduate medical curriculum, often starting in year one as part of a clinical skills course. These skills are further honed throughout medical school through patient and health care team interactions in the required clerkships. However, opportunities for structured formative feedback from attending physicians and peers are often limited.

Appendices

A. Model of Behavior Change Training Materials.doc
B. Difficult Doctor Patient Encounter Training Materials.doc
C. Shared Decision Making Training Materials.doc
D. Delivering Bad News Training Materials.doc
E. Standardized Patient Evaluation Form.docx
F. Faculty Orientation.docx
G. Faculty Teaching Points .docx
H. Faculty GOSCE Evaluation Form.docx
I. Time Sheet.docx
J. Student Station Instructions .docx
K. Student Evaluation Form .docx

All appendices are peer reviewed as integral parts of the Original Publication.

Objective structured clinical examinations (OSCEs) are a well-established performance-based assessment tool for communication skills.[1] With the use of immediate feedback at the end of the OSCE stations, they have also been identified as effective formative assessment tools for communication skills.[2] The limitations of OSCEs include their cost and logistical challenges for implementation, including faculty resources for immediate feedback during formative OSCEs.

A group objective structured clinical examination (GOSCE) is a less-frequently reported variation on the traditional OSCE.[3-5] As a group experience, the GOSCE provides an opportunity for peer observation and feedback. Students allowed to observe and evaluate the performance of their peers not only learn from their peers but also gain experience in evaluating others. In addition to using feedback from evaluators and standardized patients (SPs), immediate peer feedback is used in order to increase students' comfort in giving feedback and working with colleagues. GOSCEs are also a resource-effective tool for teaching communication skills as they cost less and require fewer faculty per learner than a traditional OSCE.

Although OSCEs are commonly used in most medical school curricula for both formative and summative assessments, there are very few studies of GOSCEs in the literature.[3-5] The GOSCE presented here adds to the current existing literature on GOSCEs and expands upon it not only by using the GOSCE as formative assessment tool but also through its focus on peer feedback.

We have created this GOSCE to teach advanced communication skills to medical students. The target audience is medical students at the midway point of their internal medicine clerkship. These learners should have a background in basic patient-doctor communication skills, including how to take a medical history, models for behavior change, addressing loss and grief, and shared decision making. At our institution, students have learned these skills in the Introduction to Clinical Medicine course given in the first 2 years. In addition, our students have been taught the fundamentals of self- and peer feedback at the beginning of their first year.

Methods

The internal medicine clerkship at Albert Einstein College of Medicine is an 11-week rotation where students split their time between two different affiliated inpatient facilities. As a requirement of the clerkship, all students are observed by a faculty member as they perform a complete history and physical examination on a patient. These patients are often handpicked as cooperative patients who would make a good observed clinical exam. It was felt that students needed more practice with challenging communication skills in a low-stakes setting. Furthermore, the internal medicine clerkship comprised 25% of all clerkship time, but there was no OSCE associated with it. A GOSCE was piloted to ensure that this could be a comparable educational experience without the associated cost and logistical requirements of a full individual OSCE. Since this was a group experience, the GOSCE was designed as a formative experience where students would be encouraged to learn from each other.

The GOSCE cases were developed by internal medicine clerkship faculty leadership in consultation with faculty with expertise in OSCE development. The subject of the cases was determined with the internal medicine leadership to reflect common communication challenges encountered by third-year medical students. Prior to implementation, the SPs for the GOSCE, adult actors who had previously been trained to work as SPs, were trained in a 4-hour session by the faculty involved in development of the cases. During this session, a table read with the actors was conducted, going over the cases in detail with practice for potential student questions and appropriate responses. The SPs also provided iterative feedback on the cases, and changes were made accordingly. Due to the SPs' schedules, new SPs have been trained by the internal medicine clerkship director on an as-needed basis.

In 2011, 44 students were administered the GOSCE. After receiving positive feedback from participants, a decision was made to include the GOSCE as a required part of the internal medicine clerkship curriculum starting in 2012.

Overview

Prior to beginning the GOSCE, the students meet in a conference room to go over the structure of the GOSCE as well as the objectives. After the orientation, they are divided into four groups, one for each station in the GOSCE. Ideally, there should be four groups of four students, allowing each student to be the lead interviewer at one station. The students, along with one faculty preceptor, go from station to station as a group. By having the preceptor stay with the group, a relationship is formed amongst the group that allows the students to feel more comfortable giving and receiving feedback in a public setting.

The case overview with learning objectives is placed on the door of each station. The students have 4 minutes before entering the exam room to choose the lead interviewer and discuss a strategy for the interview. Next, the group enters the exam room together, and the designated student introduces the group. The designated student then takes 7 minutes to interview the patient and complete the objectives. Next, the team of students has 5 minutes to speak with the patient and offer additional comments.

At the end of the interview, the group offers and receives feedback. First, the designated student assesses his/her own performance. Next, the SP gives feedback to the designated student, as well as to the entire group. Then, the student group gives feedback to the designated student. Finally, the preceptor gives feedback directed towards the designated student as well as the group process. The group then moves on to the next station. After the four stations are over, the students gather in a conference room with the preceptors for a debriefing session. All four groups come together in a conference room and discuss the teaching points case by case. For each case, the students are asked what challenges they faced and what skills they learned to overcome them. Then, the faculty member who started the GOSCE at the corresponding station goes over the main teaching points of the case in order to drive home the main communication skills. The process takes a half hour per station and 2 hours to complete the entire GOSCE.

SP Materials

The Model of Behavior Change Training Materials (Appendix A) are the SP training materials for the tobacco dependence station. In addition to the information that the students see at the station (objectives and the scenario), these materials go into more detail about the patient, Charles Thompson, a 55-year-old man with a long smoking history who is admitted to the hospital for worsening shortness of breath thought to be due to a chronic obstructive pulmonary disease (COPD) exacerbation, although the patient is not aware that he has COPD. He is a precontemplative patient, and the objective for the students is to assess the patient's tobacco use, to advise the patient to quit smoking, and to assess his willingness to engage in behavior change. The materials include details of the patient's medical, social, and family history as well as the suggested emotional tone for the interview and potential responses for learner statements.

The Difficult Doctor Patient Encounter Training Materials (Appendix B) are the SP training materials for the difficult doctor-patient encounter station. In addition to the information that the students see at the station (objectives and the scenario), these materials go into more detail about the patient, Natalie Smith, a 27-year-old woman who presents to the clinic requesting antibiotics to treat what is likely an upper respiratory tract infection. The patient works as an attorney at a large firm, has a hectic work life, and is eager to get back to work. She expects to receive antibiotics to treat her symptoms promptly. The materials include more details of the patient's medical, social, and family history as well as the suggested emotional tone for the interview and potential responses for learner statements.

The Shared Decision Making Training Materials (Appendix C) are the SP training materials for the shared decision-making station. In addition to the information that the students see at the station (objectives and the scenario), these materials go into more detail about the patient, Joanna Mills, a 45-year-old woman with a history of type 2 diabetes mellitus. She returns to the doctor to follow up her hemoglobin A1c results after being out of care due to loss of insurance through work while taking care of her sick mother. Her hemoglobin A1c demonstrates that she has uncontrolled diabetes, and the physician recommends

starting insulin. The patient is reluctant due to a fear of needles and the experience of both of her parents, who had multiple complications of diabetes while on insulin treatment. The materials include more details of the patient's medical, social, and family history as well as the suggested emotional tone for the interview and potential responses for learner statements.

The Delivering Bad News Training Materials (Appendix D) are the SP training materials for the delivering bad news station. In addition to the information that the students see at the station (objectives and the scenario), these materials go into more detail about the patient, Larry Brown, a 60-year-old man who is admitted to the hospital with iron deficiency anemia and is found to have an ulcerating mass as seen on the upper endoscopy. The biopsy is consistent with gastric adenocarcinoma, and the team must deliver the results to the patient. The materials include more details of the patient's medical, social, and family history as well as the suggested emotional tone for the interview and potential responses for learner statements.

Although this is a formative exercise, the Standardized Patient Evaluation Form (Appendix E) allows the students to receive directed, constructive feedback from the SP. The SPs score students' communication skills using a yes/no metric. They then assess whether the students successfully completed the station-specific content. Finally, there is room for comments. This is a four-page document, each page having an evaluation form for each station. The number of copies of this document will depend on how many groups of students go through the GOSCE. At our institution, we collect the forms but do not use them to evaluate students beyond the GOSCE. However, other institutions may choose to use these forms differently.

Faculty Materials

Faculty learn to precept the GOSCE with a brief orientation (Appendix F). This outline describes all the points that faculty should be aware of as they go through the cases. The document explains the structure and timing of the GOSCE as well as how to structure the feedback.

The one-page Faculty Teaching Points document (Appendix G) lists the major take-home points for the faculty to emphasize at each case. These points are not only case specific but can be applied to similar real-life patient encounters.

Although this is a formative exercise, the Faculty GOSCE Evaluation Form (Appendix H) allows the observing faculty member to give directed, constructive feedback to both the student interviewer and the team. Since this is a formative assessment, the communication skills are assessed in a yes/no fashion. The forms were designed to allow the faculty to take notes to use as fodder for discussion in the feedback portion of each station. The faculty then assess whether the students successfully completed the station-specific content. Finally, there is room for comments. At our institution, we collect the forms but do not use them to evaluate students beyond the GOSCE. However, other institutions may choose to use these forms differently. Faculty are walked through the forms and the teaching points of each station prior to the beginning of the GOSCE.

Additionally, there is a Time Sheet (Appendix I) that allows an administrator to keep the time for the GOSCE.

Student Materials

The Student Station Instructions (Appendix J) contain the station-specific instructions for each of the four stations of the GOSCE. They includes the objectives, scenario, and instructions for the students and should be read by the students just prior to entering the room. At this time, a student interviewer is chosen, and the group comes up with a strategy for approaching the challenge about to be faced. Since this is a formative experience, the faculty may give some tips for effective communication prior to entering the room so that the students can use the opportunity to practice these skills in a low-stakes environment.

The Student Evaluation Form (Appendix K) allows the observing students to take notes and give directed, constructive feedback to their peers. This form is critical in providing guidance to students on how to give meaningful feedback. All four stations are included in this document in order to reduce paper waste and to make it easier to keep track of the forms. Similar to the faculty, students score each other in communication skills using a yes/no metric. They then note any strengths and areas for improvement.

Results

In the pilot phase, a total of 44 students were administered the GOSCE. Students completed a pre-GOSCE survey during orientation and a post-GOSCE survey 6 weeks later to assess their confidence in their overall patient communication skills, case-specific communication skills, and peer feedback skills. Students also completed a survey immediately at the end of the GOSCE session to rate each case and the overall experience. All surveys were scored on a 5-point Likert scale with scores ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The results of the pre- and post-GOSCE surveys are shown in the Table. All items on the survey showed a trend toward improvement, suggesting that students felt better about their skills in all areas after participating in the GOSCE. Although students' pre-GOSCE scores regarding their overall confidence in patient communication were high at baseline, the composite score of questions addressing students' confidence in patient communication skills improved after the GOSCE. Although students' confidence in the ability to give feedback to peers did not improve with statistical significance, there was a trend toward improved confidence.

Table. Student Confidence Survey

Item	Pre-GOSCE *M*[a]	Post-GOSCE *M*[a]	Pooled *p* value
I feel confident in my ability to:			
Communicate with patients in general	4.52	4.67	0.22
Clarify patients' responses when I interview them	4.30	4.56	0.03
Elicit all of my patients' concerns when I am speaking with them	4.11	4.36	0.08
Show respect towards patients	4.81	4.89	0.43
Communicate with patients verbally	4.48	4.69	0.06
Communicate with patients using nonverbal clues	4.16	4.52	0.01
Composite of patient communication skills	*4.40*	*4.62*	*0.01*
Take a history to assess patients' tobacco use and motivate them to quit smoking	3.80	3.94	0.36
Respond to patients when they become angry during an encounter	3.43	3.92	0.01
Negotiate and share decision making with a patient to establish a treatment plan	3.77	4.14	0.03
Deliver bad news to a patient	3.13	3.39	0.24
Composite of case-specific skills	*3.53*	*3.85*	*0.02*
Communicate with patients within a group	3.68	4.14	0.01
Give feedback to my peers	3.66	3.97	0.11
Composite of group communication skills	*3.67*	*4.07*	*0.02*

Abbreviation: GOSCE, group observed structured clinical encounter.
[a]*N* = 44.

Nearly all of the participants (96%) responded to the survey. Overall, students rated the GOSCE as an enjoyable and educational experience. Students rated the GOSCE as being as effective as an individual OSCE exercise (*M* = 4.28, *SD* = 0.87) and making them more comfortable in receiving feedback from peers (*M* = 4.05, *SD* = 0.78) and giving feedback to peers (*M* = 4.02, *SD* = 0.74).

Based on these data, a decision was made to include the GOSCE as a required part of the internal medicine clerkship curriculum.

The faculty preceptors are members of the Department of Medicine and have included hospitalists, general internists, medicine subspecialists, senior faculty members (including deans), and chief residents.

In all, approximately 25 faculty members have been involved in the GOSCE since its inception. The faculty have universally enjoyed the experience and thought it a good opportunity to teach fundamental communication skills to students in a standardized environment.

The cost of running the GOSCE, which includes two cohorts of students per session, is approximately $4,000 per year. This cost is mostly for hiring the SPs. The cost of hiring SPs may vary widely in other markets. If we were to run these sessions as an individual OSCE, we estimate that the cost would be four times the amount of money ($16,000) and would require four times the number of faculty.

Discussion

We developed and implemented a multistation GOSCE that has been used for formative assessment of communication skills during the internal medicine clerkship. The GOSCE has been well received by student participants. The addition of group collaboration and immediate peer feedback in the GOSCE has provided additional value over an individual OSCE by teaching students evaluative skills that enable them to improve their own performance in patient-directed communication and also give them an opportunity to enhance their communication and feedback skills among colleagues.

Although the cases have not changed substantially since implementation, our teaching around the cases has evolved based on student response and feedback. For example, students were very uncomfortable with the delivering bad news case. They felt that they would never give a patient a diagnosis of cancer before knowing the answers to their questions about prognosis. We have since spent the time before entering the room talking about how to manage an emotional response from a patient when the clinician does not have all the answers. We feel their experience with this case has improved since then. We have also found that encouraging the students to be specific with feedback has helped to encourage them to give meaningful feedback to each other.

A GOSCE is logistically easier than an individual OSCE. However, we have encountered similar challenges, especially in regard to recruiting faculty as they must give up a half-day of their clinical or administrative time to precept the GOSCE. We run the GOSCE in two sessions on the same day. However, due to a large class size, we tend to have six students in each group, which does not allow each student to be the lead interviewer. One technique for overcoming this is to make a student who does not get a chance to take the lead act as the lead in giving feedback (i.e., that student gives feedback to the lead interviewer first). Finally, as curricula change and communication-based OSCEs are added to other clerkships, an additional challenge is minimizing redundancy. To this end, we are planning to revise our GOSCE for the next academic year to replace the difficult patient case, which is covered in the family medicine clerkship, with a case on social determinants of health.

There are two major limitations in a GOSCE. As a group exercise, it is difficult to evaluate individuals, rendering this a truly formative experience. Second, in a group setting, it is difficult to include physical examination as part of the exercise, and thus, a GOSCE is best suited for communication skills. However, overall, we feel this is a substantive opportunity for students to practice difficult communication skills, communicate within a group, and give feedback to and receive it from their peers, all in a safe and low-stakes setting.

Allison Ludwig, MD: Assistant Professor of Medicine, Department of Medicine, Albert Einstein College of Medicine

Rosa Lee, MD: Associate Medical Professor, CUNY School of Medicine

Sharon Parish, MD: Professor of Medicine in Clinical Psychiatry, Department of Psychiatry, Weill Cornell Medicine; Professor of Clinical Medicine, Department of Medicine, Weill Cornell Medicine

Amanda Raff, MD: Associate Professor of Clinical Medicine, Department of Medicine, Albert Einstein College of Medicine

10.15766/mep_2374-8265.10444

Disclosures
None to report.

Funding/Support
None to report.

Prior Presentations
Ludwig A, Lee R, Parish S, Silbiger S. Creation of a GOSCE for teaching communication and feedback skills in the medicine clerkship. Accepted abstract: Clerkship Directors in Internal Medicine Annual Meeting; October 12, 2012; Phoenix, AZ.

Ethical Approval
This publication contains data obtained from human subjects and received ethical approval.

References

1. O'Sullivan P, Chao S, Russell M, Levine S, Fabiny A. Development and implementation of an objective structured clinical examination to provide formative feedback on communication and interpersonal skills in geriatric training. *J Am Geriatr Soc.* 2008;56(9):1730-1735. http://dx.doi.org/10.1111/j.1532-5415.2008.01860.x
2. Parish SJ, Ramaswamy M, Stein MR, Kachur EK, Arnsten JH. Teaching about substance abuse with objective structured clinical exams. *J Gen Intern Med.* 2006;21(5):453-459. http://dx.doi.org/10.1111/j.1525-1497.2006.00426.x
3. Biran LA. Self-assessment and learning through GOSCE (group objective structured clinical examination). *Med Educ.* 1991;25(6):475-479. http://dx.doi.org/10.1111/j.1365-2923.1991.tb00100.x
4. Elliot DL, Fields SA, Keenen TL, Jaffe AC, Toffler WL. Use of a group objective structured clinical examination with first-year medical students. *Acad Med.* 1994;69(12):990-992. http://dx.doi.org/10.1097/00001888-199412000-00018
5. Konopasek L, Kelly KV, Bylund CL, Wenderoth S, Storey-Johnson C. The group objective structured clinical experience: building communication skills in the clinical reasoning context. *Patient Educ Couns.* 2014;96(1):79-85. http://dx.doi.org/10.1016/j.pec.2014.04.003

Received: January 31, 2016 | **Accepted:** July 26, 2016 | **Published:** August 26, 2016