

Original Publication

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Assessing Interprofessional Interactions of Primary Care Practitioner Trainees

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Abstract

Introduction: The patient-centered medical home model is transforming the delivery of outpatient care, with improved quality of care, better patient experiences, and enhanced processes of care. However, teams of interprofessional health care workers have diverse viewpoints that occasionally present instances of miscommunication. In addition, few materials exist that provide potential assessments for graduate-level interprofessional trainees. We constructed an interprofessional objective structured clinical examination (IPOSCE) to assess patient-centered behaviors of nurse practitioner residents and third-year internal medicine residents. **Methods:** This IPOSCE comprises two phases. First, learners interact with a standardized patient with complex medical and psychosocial issues. Next, they engage in a series of stations with standardized interprofessional colleagues, each of whom is trained to deliver a non-patient-centered challenging line during their interaction. **Results:** Trainees felt that the cases reasonably reflected their typical outpatient practices but had some concerns about logistics and thought the cases may have presented heightened communication challenges compared with typical practice. **Discussion:** In sum, this IPOSCE workplace simulation successfully assessed communication skills of our resident trainees with standardized patients and standardized instructors in a realistic setting.

Keywords

Chronic Illness, Communication, Simulation, Interprofessional, Conflict

Educational Objectives

By the end of this assessment, learners will be able to:

1. Demonstrate fundamental communication skills with standardized patients exhibiting complex psychosocial challenges that affect care.
2. Determine the impact of psychosocial factors on self-management of chronic conditions.
3. Identify resources within the health care organization to assist with adherence.
4. Demonstrate approaches to interpersonal conflict with interprofessional colleagues.

Introduction

The patient-centered medical home model of primary care has demonstrated an improvement in quality of care, enhanced patient experiences, reduced unnecessary hospital and emergency department utilization, and promoted better health care processes when compared to standard primary care services.^{1,2} The teams at the center of these medical home models have been the subject of intensive study. Theoretically, constructing teams of health care providers allows sharing of diverse skills and experiences to optimize health care and create innovative and individualized care plans.^{3,4} These teams work most effectively when there is full participation of all members and explicit egalitarian values to optimize process variables, including timeliness, productivity, compliance with clinical practice guidelines, and cost-effectiveness.⁵⁻⁷

In practice, as with all human interactions, interprofessional health care teams frequently encounter challenges because of diverse viewpoints, as well as heightened chances for miscommunication to ensue. One study estimated that dysfunctional team dynamics contribute to more than 70% of medical errors.⁸ Therefore, effective communication between interprofessional colleagues is of the utmost importance. Interprofessional students have undergone evaluations of their teamwork skills before in objective

Appendices

- A. Logistics.docx
- B. Grid for Eight Trainees.xlsx
- C. Insterstation Exercises IPOSCE.docx
- D. Tony Beckett SP Case Template.docx
- E. Fred Benson SP Case Template.docx
- F. Communication Skills Checklist.docx
- G. IPOSCE Flow - Beckett .docx
- H. IPOSCE Flow - Benson .docx
- I. Debriefing Guide.docx

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

structured clinical examinations (OSCEs).^{9,10} However, we are aware of no studies that have situated this type of assessment for postgraduate trainees who have experience in caring for patients in a patient-centered medical home.

The Veterans Health Administration (VA) has implemented the patient-centered medical home model in primary and specialty care, with increased staffing to provide improved access to care and case management. In 2011, the San Francisco VA Health Care System became one of five Centers of Excellence in Primary Care Education to develop explicit curricula to educate interprofessional trainees in this important model. In our program, second-year internal medicine residents and nurse practitioner students collaborate in patient-aligned care teams that also include registered nurses, licensed vocational nurses, medical support assistants, and a variety of interprofessional colleagues in psychology, pharmacy, and social work. Trainees undergo a structured yearlong curriculum that includes aspects of fundamental and advanced communication skills, including sessions on conflict management and reflections on interactions with interprofessional colleagues. As the residents progressed into their third year and the nurse practitioner students graduated and continued into a residency providing heightened primary care exposure, we wished to assess these trainees' patient-centered communication skills in challenging situations. Therefore, we developed an interprofessional OSCE (IPOSCE) with both standardized patients (SPs) and standardized interprofessional colleagues (SIs).

Methods

The target audience for this assessment is advanced learners who have experience in patient-centered medical homes involving interprofessional team members including nursing, pharmacy, psychology, and/or social work. During the pre-IPOSCE orientation, we provided trainees a rationale for the sessions that included specific goals in interacting with complex SP cases, followed by interprofessional interactions that could contain some conflict situations. We also included comments that these interactions in no way should be construed to represent usual interactions with interprofessional colleagues.

Logistics

Residents were excused from a half-day of clinic in order to travel to the campus simulation center and undergo this assessment. In actuality, the IPOSCE itself only takes about 2 hours: 25 minutes with each of two SPs, followed by three to four 5-minute consultation interactions with the SIs (see Appendix A). Appendix B provides a flowchart grid of the entire exercise. After the SP interactions, trainees completed a brief interstation exercise (Appendix C). Over 2 years, nine internal medicine residents and four nurse practitioner residents underwent the IPOSCE.

Preparation

SPs do not need to be veterans but must have sufficient preparation to inhabit their roles. Approximately 1 hour of training by an experienced SP trainer was needed per SP for each 25-minute case. We trained two SPs for each of the two patient cases. Appendix D provides details for training the Tony Beckett case; Appendix E provides details for training the Fred Benson case. SPs evaluated patient-provider interactions using a SEGUE Framework¹¹ that was modified to 10 items so as to remain consistent with other assessments for which SPs had previously been trained (Appendix F).^{12,13}

For the SIs, we used advanced nursing students, pharmacy residents, psychology fellows, and social work interns all largely based at the VA in order to ensure that they would provide sufficient knowledge, both of their individual profession and of the systemic intricacies of the VA system. In order to portray authentic reactions to the patient cases, we provided the SP cases to practicing interprofessionals in each specialty and recorded their reactions and plan proposals, which we incorporated into the SI scripts. In addition, though interprofessional interactions in our clinic are largely collegial, in order to assess the residents' conflict-engagement skills, we coached SIs to state a non-patient-centered *challenging line* as part of each interaction. The goal of these challenging lines was for trainees to identify statements that were not patient-centered and attempt to empathize and manage conflicts that might arise. Since SIs typically did

not have acting skills, we spent a significant amount of time coaching them to portray these lines convincingly. For each 3- to 5-minute interaction, approximately 1 hour of training, including iterative role-play coaching, by a faculty trainer with extensive experience training SPs and running role-play was needed per SI. Appendices G (Tony Beckett) and H (Fred Benson) provide details for training SIs. A debriefing guide (Appendix I) is also included.

Coauthor Charlie DeVries conducted a total of four focus groups, each lasting approximately 15 minutes, with trainee participants immediately after they underwent the IPOSCE. Questions focused on the fidelity of the SP and SI cases, the level of challenge posed by the SI challenging lines, and recommendations for improving the IPOSCE.

Results

As previously reported, trainees scored moderately to very highly on the SP assessment of communication skills, with a mean of 9.00 out of 10.00 (range [5.75, 10.00]).¹⁴ Separately, objective evaluation by trained independent investigators corroborated the quality of the trainees' communication skills.¹⁴

We developed a coding scheme for the trainee-SI interactions to analyze responses of trainees to the SIs' challenging lines. These responses mostly honored patients' interests but did not always optimize partnership with SIs. Trainees mainly sought advice or agreed with SIs as their conflict-management strategies. Other response styles included empathy, collaboration, apology, rephrasing, giving advice, disagreement, and evasion.

We ran focus groups to determine the trainees' experiences with the IPOSCE. Trainees felt that both the patient and SI cases were authentic. Representative quotations follow.

- "I thought it was very realistic."
- "In real life we would follow him over weeks, but for a first visit, it was pretty much what we see."
- "We had a chance to do motivational interviewing and screening for substance abuse."
- "The patient visits were realistically short. I didn't need more time for the consultants."
- "One of the patients wanted to cover every item on his agenda—it was hard to negotiate, and sometimes that happens."
- "I felt like the psychology guy was quizzing us. But then [a clinic psychologist] probably would have also."
- "Pharmacy was fine. She was helpful—she brought up food issues that were important for his meds that I thought illustrated helpful interprofessionalism."
- "Even though I didn't remember the lectures from last year, we find ourselves in conflict all the time, so I wish I could have some of that content on challenging interactions again."

Trainees noted logistical challenges that prevented them from fully suspending disbelief.

- "With a real patient we'd have done a chart review, we'd have his alcohol and depression screen by the licensed vocational nurse, the social history from the chart."
- "Having the lab tests posted on the wall was kind of like looking at the computer, but it would have been easier to have them on the clipboard."

Finally, a couple of trainees felt that some of the interprofessional interactions were more challenging than usual, consistent with notifications given in the pre-IPOSCE orientation.

- "The social worker seemed disinterested."
- "Usually there are other nurses if one is too busy to see a patient today."
- "For the nurse, I got a lot of push back which was maybe set up like that."

Discussion

Our assessment resource includes two complex primary care medicine cases, each of which is accompanied by a related series of interactions with interprofessionals who provide expertise to assist with patient care. These cases also feature opportunities in which providers can use conflict-management techniques to address challenges in interactions. We believe that development of these cases for internal medicine and nurse practitioner residents in a setting with high fidelity to their workplace represents an innovative contribution to the literature.

The patient cases we developed for the IPOSCE include some of the more challenging aspects of primary care. They feature an isolated elderly man with substance abuse and a homeless man with poorly controlled diabetes. These kinds of cases can rarely be adequately managed without an interprofessional team of providers, who can react differently in response to complexities presented by the patient, thereby raising potential conflicts amongst that team. We assessed third-year residents in internal medicine and nurse practitioner residents in their first year of practice, but we believe that these cases could easily be used in other professional training programs, including family medicine residencies and physician assistant programs.

The kinds of challenges that the SIs evoked represent common challenges across many different settings; therefore, we believe that these cases overall are generalizable to other practices. Some of the details of the SI cases are particular to the services provided at our medical center in our patient-aligned care teams. We anticipate that these cases will require adaptation to the resources available at individual practices.

The main challenges in terms of feasibility are recruiting and training SPs and SIs and obtaining the space and resources (time and money) to train and run the IPOSCE. Since our Center of Excellence in Primary Care Education provides ready access to interprofessional trainees eager to help our educational mission, we were able to reduce some costs of training while simultaneously increasing the authenticity of those encounters. Training actors to portray SIs would likely require more resources and more detailed background information about the scope of practice of each profession. In addition, adapting these cases for more junior learners (e.g., medical students or interns) may yield disparate results.

In conclusion, we believe that these innovative cases add to the toolbox of interprofessional communication assessments and expand that realm to include scenarios that incorporate graduate medical and nursing education trainees, the setting of patient-centered medical homes, and interpersonal communication challenges.

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Disclosures

None to report.

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Ethical Approval

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

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