



Objective Structured Clinical Examinations V:

Working with Standardized Patients for Assessment



NBME[®]

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Lesson Objectives

By the end of this lesson you will be able to:

- Name three areas where standardized/simulated patients can be integrated into the curriculum for assessment
- Identify three advantages of using standardized/simulated patients
- Describe a framework for understanding learner skill levels
- List three resources needed to develop a standardized/simulated patient program at your institution

Introduction

Since the mid-1970s, medical educators have worked with standardized patients (SPs) to teach and assess the clinical skills of history-taking, physical examination, communication skills, patient education, development of diagnoses, and management plans (to name a few) in formative and summative settings. According to the Association of Standardized Patient Educators (ASPE), “Standardized/Simulated Patients are individuals who are trained to portray a patient with a specific condition in a realistic, standardized, and repeatable way (where portrayal/presentation varies based only on learner performance). SPs can be used for teaching and assessment of learners, including but not limited to history/consultation, physical examination, and other clinical skills in simulated clinical environments. SPs can also be used to give feedback and evaluate student performance.”

Simulated experiences working with SPs can be used as the focus in large and small group teaching sessions or as individual clinical encounters. They can be used to practice after an individual clinical skill is taught or midway through a course to evaluate learner progress. The SPs can provide feedback to promote iterative learning and improve student performance. Debriefing becomes a key teaching tool and performance may or may not count toward a grade. SPs are an important way for health professions students to practice in a safe environment in order to receive feedback toward improving important clinical skills.

Experiences with SPs can also be used in “high stakes” summative evaluation at the end of a course or program or during licensure examinations. Currently, the U.S., Canada, Indonesia, Taiwan, Switzerland, and South Korea use SPs to make high-stakes decisions about the clinical skills of examinees. These summative evaluations are generally pass/fail decisions.

Working with SPs

SP methodology is used in a variety of evaluative experiences for formative or summative assessment. The examinee is asked to interact with an SP in the same way the examinee would interact with a real patient. The encounter is observed (or videotaped for later observation) so that feedback can be provided on the examinee's clinical skills in that situation. In order to provide a sampling of different kinds of patients and situations, several encounters using different SPs are used to assess performance. These are often referred to as objective structured clinical evaluations (OSCEs). The encounters, or stations, are timed, with every student rotating through each station.

There are a number of teaching and assessment activities that benefit from SPs. These may include but are not limited to:

- Medical interviewing courses (to teach/evaluate history-taking, communication skills)
- Clinical skills courses (to teach/evaluate physical examination)
- Clinical competency assessment (before clinical clerkships or rotations)
- Clinical clerkships/rotations (for midway and final examinations)
- Faculty development and continuing education (eg, use of "standardized students" to teach/evaluate skills in giving feedback)
- Dealing with challenging communication situations (eg, nonadherence, breaking bad news, informed consent, smoking cessation, weight loss)
- Individual students (eg, remediation)
- Small group teaching
- A "family" of SPs (to teach/evaluate communication skills in a family context)
- Health care systems "secret shoppers" (for clinics and offices to evaluate customer service)
- Basic science demonstrations (clinical findings/pathology)
- Procedural skills combining SPs with task trainers

Advantages of Working with SPs

Working with SPs prepares students for work with real patients by:

- Simulating simple and complex clinical scenarios
- Simulating emotionally intense interactions in a safe environment
- Safeguarding students from endangering patients
- Providing immediate feedback to the student

Through deliberate practice, students learn iteratively and acquire the ability to identify learning needs. First, the students work with the SP for demonstration and instruction in a large- or small-group setting. Then, students can practice independently with the SP and receive feedback on their performance. The SP (alone or with the faculty member) can then give feedback to the entire class of students.

Advantages of Working with SPs for Faculty

- Standardizes the experiences for all students (LCME standard for the US medical schools)
- Allows for the evaluation of learning objectives in a standardized way
- Evaluates ability across the same situations repeatedly
- Allows for safe, planned, and controlled learning experiences without jeopardizing real patients

SPs, unlike real patients, are readily available in any predetermined setting. SPs can deliver feedback on students' actions from a patient's perspective. For example, palpations that are too deep or an otoscope inserted roughly are experienced first-hand by the SP in a way that cannot be evaluated by a faculty observer.

Programmatic Advantages

In addition to advantages for students and faculty, there are programmatic advantages to integrating SPs into the curriculum. These include:

- Provides feedback and evaluation of program effectiveness
- Fortifies the "patient-centered" approach to care delivery
- Monitors student outcomes using objective data rather than subjective opinion
- Protects real patients from inadvertent mistreatment
- Allows students to experience complex clinical and emotional situations safely
- Eliminates the issue related to the unavailability of real patient situations to fulfill curricular goals
- Standardizes criteria for completion of program outcomes in a precise manner

Context for Use of SPs

There are several developmental frameworks of skills learning that are helpful when considering how to integrate SPs within the curriculum (see following table). In its publication, *Recommendations for Clinical Skills Curricula for Undergraduate Medical Education*, the Association of American Medical Colleges recommends the designation of expected levels of skills performance. SPs can help faculty ensure that each student can demonstrate expected skill levels.

Dreyfus Levels of Skill Performance (1986)	Miller's Learning Pyramid (1990)	Pangaro's RIME Scheme (1999)
Novice Advanced Beginner Competent Proficient Expert Master	Knows Knows How Shows How Does	Reporter Interpreter Manager Educator

Developing an SP Program

Ideally, students shouldn't undertake a summative evaluation without having a prior opportunity for improvement through formative experiences/assessments. Building an SP program within your institution can support this.

Assuming there is institutional/departmental agreement on the constructs being assessed, the next step is to form an interdisciplinary committee to oversee the integration of SPs—where and when—in the curriculum. It is ideal to start small, with a formative pilot project in one class. In this way, student and faculty reaction can be evaluated and support built for a larger endeavor. Conducting visits to other institutions with established SP programs is extremely helpful, as is collaboration with other schools to share costs. Remember to consider other health professions programs that would benefit from using standardized patients such as nursing, pharmacists, social workers, and physician's assistants schools.

The cost of implementing an SP program includes investment in staff. There are staff and administrative expenses for:

- Program administration (eg, recruiting SPs, scheduling, daily administrative duties)
- Developing and maintaining SP-related materials (eg, the case bank)
- SP training and quality assurance
- Faculty development
- Data collection and analysis
- Reporting

There are overhead costs, including:

- Facilities to conduct the SP experiences
- Materials and equipment (eg, gowns, drapes, gloves)
- AV and computer costs
- Center software systems

In addition to staff and overhead costs, the following resources are needed for an SP program:

- Recruiting and screening a pool of available people to serve as SPs
- Faculty development (eg, how to write cases, how to give learner feedback, how to work with SPs)
- Developing institutional guidelines for working with SPs
- Developing SP training protocols
- Implementing a quality assurance program for SPs and data collection
- Developing a research agenda

Take-Home Messages

- SP experiences are a valid and reliable methodology for teaching and assessment in the health professions.

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- SP assessments are an important adjunct to other types of assessment, such as multiple choice question examinations, because a realistic approximation of a clinical setting can be simulated and examinees must interact with the SP.
 - Although the initial investment in an SP program can be substantial, the ability to expand an institution's repertoire of teaching and assessment capabilities makes it worthwhile.

Resources

Association of American Medical Colleges. (2005). *Recommendations for clinical skills curricula for undergraduate medical education*. Retrieved from <https://www.aamc.org/initiatives/clinicalskills/>

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