How to Train SPs in 10 Steps

8

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Abbreviations

ASPE	Association of Standardized Patient Educators Patient Educators
EP	Embedded Participant
FH	Family History
HPI	History of Presenting Illness
MaSP	Maastricht Assessment of Simulated Patients
PMH	Past Medical History
ROS	Review of Systems
SH	Social History
SME	Subject Matter Expert
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized

Presented poorly, the SP technique undeservedly gets bad press in the eyes of already skeptical faculty. Properly done, the SP should be undetectable from a real patient even when examined by an expert clinician. Howard S. Barrows [1]

Introduction

The demands on Standardized Patients are high. SPs perform three responsibilities during a simulation: role portrayal, assessment, and feedback. In this chapter we focus on role portrayal and the completion of assessment instruments, and introduce a 10 Step Framework for this training. Developed drawing on a combined 80 years of experience, this framework can be applied to every SP training situation. Ideally, the steps are to be implemented over several training sessions to avoid cognitive overload of the SP. However, depending on various factors (SP experience, difficulty of case, formative or summative activity, etc.) these steps can be implemented in a shorter time. Ultimately, the SPE and the SP should leave each session feeling confident about the progress made toward accurate and realistic portrayal.

We sequence and integrate the ASPE SOBP into these steps, and briefly touch on training methods for completing accurate assessment instruments [2]. In Chap. 7, we broadly addressed the training practices noted in the ASPE SOBP and provided strategies and tools for implementing those processes. Building on that work and the SOBP are some general training concepts that you will apply within the 10 Step Framework.

General TIPS: Training SPs for Role Portrayal

Use Second Person Throughout the training, when talking about the feelings and symptoms of the person being simulated. It is important to help the SP step into the role. This is done by using the second person point of view by saying "you" rather than third person, "he, she, the patient." Instead of saying "the patient feels" or "she feels," use the second person perspective; "you feel." For example, replace "*he* has been feeling tired for the past week" with "*you* have been feeling tired for the past week." As you are training, listen to the SPs as they talk about the role and watch for the transition from third person to the first person "I".

Manage Medical Terminology As you train the case, use words and terminology that reflect the case character. For example, if the character is a layperson, incorporate the

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everyday terms that would be understood (considering the character's level of education, knowledge of the diagnosis, etc.). If the character has a healthcare background (i.e. an Embedded Participant), medical terms would be understood and used in training.

Stay Positive Limit your discussions to the positive findings of the case to help the SP memorize important features. Avoid introducing the long list of symptoms the patient does NOT have. Under the pressure of an interview, it is easier to remember discussions of the positive signs and symptoms.

Put SP Safety First Throughout the training, check in with the SP on her comfort level with the role or activity (SOBP 1.1.4 – Allow SPs to opt out of any given activity if they feel it is not appropriate for them to participate). If you see any unease in the SPs ability to portray the person's problem, you may want to explore the reasons. Is it too close to her personal life and painful to relive? Does the SP feel the simulation is offensive, or unbelievable and hard to imagine? Remember, SPs can opt out of any case or activity for any reason at any time without explanation.

Avoid Over-scripting Refrain from developing cases or "scripts" that require line-by-line memorization. Over-scripting may have negative impact on the SP's ability to answer learners' unscripted questions. Over-scripted SPs may appear robotic and inflexible; too many scripted responses limit the ability to improvise during the encounter, engage the learner, and realistically react to the learner's questions and bedside manner.

Incorporate good feedback and communication techniques Provide frequent feedback on the SP's performance throughout the training session using verbal encouragement to consistently and regularly provide positive feedback throughout the training activities. Use open-ended questions and short statements ("go on," "tell me more") to encourage the SP to continue to talk about the case to assess understanding of the case and situation. Immediate use of the SP's own words ("echoing"), correcting when needed, and clarifying ("*what do you mean by that?*") allows the SP to reflect on the correct responses.

Train multiple SPs together Training SPs playing the same case as a group allows the SPs to develop a single-minded understanding and awareness of case nuances. The SPs calibrate their performance while watching each other, developing a common vocabulary and sharing training experiences with each other. It is also efficient to address case issues and training concerns with all the SPs at the same time.

The 10 Step Framework

The shaping of the role is a fun and dynamic interaction between you and the SPs. Supported by Adult Learning Theory, we propose a framework that has 10 steps to train the SPs to perform realistic and authentic role portrayals, and to complete accurate assessment instruments [3]. Understanding these 10 steps will allow flexibility in creating a training schema and navigating the training sessions discussed in Chap. 7 and, following the Human Simulation Continuum, in Chap. 5.

As you become familiar with each step, you can adjust the order of the steps to tailor trainings for different contexts, the selection of the appropriate application from the Human Simulation Continuum Model, and the time frame available for training.

The advantages of this framework include being able to:

- assess the SP's understanding of the scenario and role throughout the training
- standardize the training process for efficiency
- increase and support SP confidence
- achieve calibration of SP portrayal accuracy

Step 1: Review Activity Logistics with the SP

Goal Review the purpose, objectives, and logistics of the educational activity with the SP.

Objective Following Step 1, the SP will be able to name the logistics of the educational activity she is expected to participate in.

As adult learners and partners in the educational activity, SPs benefit from a discussion about the upcoming training process. Even if logistical information has been sent with the case prior to the training session, a quick review of the activity can provide more detail, answer SP questions, clear up misunderstandings, and align expectations. Discussion of each of these elements aligns with the ASPE SOBP 3.2.1 – Review with the SPs the key objectives, responsibilities, context and format of each activity.

Table 8.1 provides suggested logistical elements to discuss with SPs during training session:

Step 2: Build a "Shared Mental Model" of the Character or Personality

Goal Guide SPs to bring the character to life.

Objective Following Step 2, the SP will demonstrate realistic behavior standardized to the expected personality of the character during role playing.

Table 8.1 Logistical elements

Purpose of the activity	Formative teaching or assessment or summative assessment
Learning objectives/goals	Brief overview of learning objectives relevant to the SP
Faculty participation	Role of the faculty if attending the activity: Faculty observing live or remote Faculty involvement in feedback Briefing and debriefing the SP Feedback sessions with SP and learners
Target audience	Level of the learner including specialty, if needed (may need to be clarified/described for new SPs) Expectations for level of the learner
Timing & station overview	Total number of stations/cases for the activity Total number of cases seen by learners Timing of stations/activity, breaks, etc. Number of learners per session (individual or size of group)
Format of the SP session	Length of time in-role Strategy for the session (continuous or "time-in and time-out") Expected assessment instruments to be completed (history, physical examination, etc.) Any feedback required: verbal or written feedback Time allotted to complete the instrument(s) for feedback for SP coaching and learner practice for learner to complete a post-encounter exercise
Compensation	Money, gift card, hourly rate, per session payment, per event, etc.
Safety considerations	Any possible psychological, emotional, or physical safety concerns for SPs or earners. **TIP**: This is another opportunity for the SP to decline a role.

Performance improves if the SP and SPE have a shared understanding of the character and personality underlying the patient to be portrayed, and of the teamwork that is training, using a shared mental model [4].

Building a shared mental model at the beginning of the training allows the SP to think of the character underlying the patient throughout the entire training session. The SP needs to see herself first as the "person" with all the corresponding emotions and concerns, and second, as the "patient" with symptoms of an illness and the corresponding problems this causes. You are preparing SPs to provide authentic portrayals, not robotically delivered lines. This step aligns with the ASPE SOBP 3.2.2 – Engage SPs in discussion and practice of role portrayal features (e.g. affect, signs and symptoms, behaviors).

In this step, the SP does most of the talking. Using the case materials as a gold standard, ask the SP to "*describe the character and personality of the person to be portrayed*". These discussions allow you to refine and guide the SPs understanding of the portrayal and immediately correct misunderstanding of the case materials. As the SP describes the role, point out the non-verbal body language they use, reinforcing what is needed throughout the role portrayal or reshaping it immediately.

Ask questions such as:

- "What is your picture of this person – their personality?"
- "Tell me about this person, who they are, what their concerns are."
- "Give me an overview of this person without talking about their symptoms or why they are seeing the doctor today."
- "What is your understanding of this person, not the symptoms or case details – but WHO is this person?"

Encourage the SP to put herself in the situation of the person and integrate the details of the case into the total persona.

> We try things like "a day in the life of the person" that they are portraying. What would the day look like with their concerns? Make them imagine how a person like that would live, especially when it is somebody that is different, very different from their usual lives. *Henrike Hölzer*

Provide positive feedback even when the role description is not exactly what the case materials call for. You will find yourself saying things such as, "*I like the way you talked about... and let's change it a bit to more of...*" Reinforce correct descriptions and correct (shape) the misunderstood aspects according to the case materials.

When calibration is required across multiple SPs, get consensus from the other SPs on phraseology and descriptions which align with the case materials. Make statements like, *"I like the way you described this person as 'at wits end', so let's all use that visual and statement."* This produces shared understanding.

This step is also a way to explore in depth the SP's own experiences and feelings about the role. Depending on the context and need for standardization, you may find an opportunity to blend the SP's life-experiences with those of the written case. However, if you find personal experiences impact the SP's emotional state, the SP's ability to perform the role, or could negatively impact the learner's encounter, consider replacing the SP.

TIP When the SPs start saying "I" instead of "the patient," it is an indication they have internalized the patient.

Step 3: Discuss the "Unknown:" Answering Unanticipated Questions

Goal Prepare the SP to answer unanticipated questions.

Objective Following Step 3 of training, the SP will demonstrate the ability to answer unanticipated questions.

There is a grey area between the details found in the case materials and the unanticipated learner questions the SPs must respond to during an encounter. SPs, when faced with unexpected questions, may be at a loss on how to realistically respond. This may cause stress, resulting in the SP delaying an answer in a manner affecting the realism of the portrayal. Understanding the character at a deeper level will maintain the reality of the case, keeping the role believable, and addressing issues of SP mental workload. This step continues to shape the SP's understanding of the role, so the SP can confidently answer unexpected questions.

Here are several strategies experienced SPEs recommend:

Strategy 1: Instruct the SPs to write down answers to 2–3 random questions geared to bring depth to the character outside the illness.

> After the SPs have written their answers, ask them to voice them out-loud individually and explain their rationale for answers. This is your opportunity to identify outliers and re-calibrate. For instance, an SP response of "I answered that way because it's what I would do" is an indicator the SP has not fully assumed the mental model established by the group of SPs and is a potential outlier. This process is repeated until the group becomes more standardized regarding their rationale for answers. This technique can also help mitigate potential anxiety SPs have regarding answering "correctly" to unscripted questions. You will be surprised how most of the SPs will have similar answers and a shared understanding of the character.Sample random questions:
>
> - What type of vehicle would this person drive?
> - What hobbies does this person have?
> - What is this person's favorite ice cream flavor?
> - Does this person have any pets? Dog? Cat? Other?
> - Social butterfly scale – On a scale from 1–10, 10 is the most outgoing, how comfortable is this person at a party where they know 1–2 people? *Amelia Wallace*

Strategy 2: Conduct role plays using actual unanticipated questions asked by learners in the past.

> It helps to keep a list of questions learners have asked that aren't covered in the case materials to use for this. One example: the spouse's family medical history (this actually happened). Correct response: as far as I know, everyone is fine. Of course, for a geriatric case, this might change (as far as I know, everyone just died of old age). Other examples: Seat belts? Of course. Texting while driving? Never. *Gail Furman*

Strategy 3: Games taken from improvisational theater help SPs develop the ability to think on their feet and provide naturally sounding responses staying within the context of the case.

> The work of Viola Spolin may be helpful. Spolin created techniques to help with being focused in the present moment and to find choices improvisationally, as if in real life. She wrote several books detailing many exercises. *Jamie Pitt*

Strategy 4: Use "Small talk" as a stimulus for developing the character.

> Exercises from Augusto Boal are another resource [5]. For example, the SPE would ask questions about the character's relationships; with spouse, employer, to the illness, focusing on believability to who the character is. Sample question: "tell me about your relationship with your sister" This helps focus believability. *Devra Cohen-Tigor*

Strategy 5: After each activity with the learners, check in with the SPs about unexpected questions.

> At the end of the day I check in to ask if there are any unexpected questions, and there always are at least one or 2 of these questions that come up. We then agree on a standardized answer for that question and I ensure that all SPs doing that case will get that information before they come in next time to play the case. I also add these to the training notes for next time the case is used in an OSCE (much of the work we do repeats itself throughout the year or may be played by an SP "team" over a 2-week period). If there are any answers, I may be at all concerned about, I always check in with faculty case authors to be sure they agree with my crafted response. *Wendy Gammon*

These strategies align with the ASPE SOBP 3.2.3 – Provide SPs with strategies to deal with unanticipated learner questions and behaviors.

Step 4: Calibrate Affect or Emotional Portrayal

Goal Calibrate affect and emotional portrayal.

Objective After completing Step 4, SPs portraying the same role will demonstrate standardized affect and emotional portrayal during an encounter.

This step addresses the challenges of poorly portrayed affects, overacting, underacting, and changes in the emotional portrayal over time by using numeric rating scales. Using a numeric rating scale gives you a standardized tool to direct the role presentation based on the case materials, and to establish shared expectations of emotional portrayals with faculty and SPs. This aligns with the ASPE SOBP 3.2.4 – Ensure consistency and accuracy of role portrayal of individual SPs, and among groups of SPs portraying the same role.

The quality of the affect in a role portrayal determines emotional fidelity. Using the numerical rating scales to quantify affect, an SP can be trained to realistically and repetitively portray the affect needed to meet the requirements of the scenario. Developing a standardized tool calibrates the affect within an individual SP and across the group of SPs portraying the same case. Once developed, you and your SPs can quickly review the scale for specific cases and fine-tune SP performance. Additionally, using numerical scales is a time-saving tech-

nique. Future trainings take less time to review the scales with SPs and provide a base for quick feedback from any observer who knows the scales. You will find yourself saying "*that was a good level 6 anger, but this case needs a level 3 anger, so review your affect scales and let's see a 3.*"

You can develop portrayal scales for the most common emotional affects that you ask your SPs to portray, such as:

- Pain
- Anxiety
- Anger
- Grief
- Depression
- Mania

Unlike the use of some scales in which personal experience sets the anchors in the scale (e.g. what is the worst pain you've experienced), you establish the anchors and behaviors. There are several decisions you must make while developing your scales:

1. Identify the numeric anchors: 0–10, 0–5, etc. Keep in mind the more numbers in the scale, the more verbal anchors you will have to develop.
2. Define the verbal anchors for each end of the scale. For example:
   - Anger: 0 is no anger and 10 is physically threatening
   - Anxiety: 0 is no anxiety and 5 is "fight or flight" mode
   - Pain: 0 is no pain and 10 is pain before loss of consciousness
   - Depression: 0 is no depression and 5 is suicidal
3. Set the ranges of severity for your scale. For example, if using a 10-point scale you may set ranges as seen in Table 8.2.
4. Establish the body and mind link. What is the body doing and what is the mind thinking? Establishing this link allows the SPs to quickly think about the combined physical and mental energy needed to portray the level.

Some SPEs like to develop the first scale with their SPs through a discussion. This first conversation to develop the scales may look like this:

Table 8.2 Ranges of severity

Numerical	Severity
0	None
1–3	Mild
4–6	Moderate
7–10	Severe

SPE "*On an anger scale of 0 to 5, 0 is absolutely no anger and 5 is to the point of physically threatening the learner, what would your body be doing and what would you be thinking for a level 3 portrayal?*"

SP "*In my mind for a level 3, I am more irritated, sarcastic, put-off and miffed, not connecting, indifference. The learner can appease me with distraction and good techniques. I am responsive to positive support. My body – I would answer questions quickly and curtly, decreased eye contact, rolling of eyes, facial expression irritated, body language closed and shut off.*"

SPE "*What would I see for a level 4?*"

SP "*In my mind, I increase sarcasm, my thoughts are jumping/interrupting, condescending, distrustful and disrespectful. My body is full on face-to-face defensive/confrontational posture, glaring eye contact, look of disdain, short answers after long glare, uses silence as weapon, stiffer body language, focusses on anger, tone of voice louder and intonation precise, interrupts learner.*"

SPE *"What would I see for a level 5?"*

SP *"In my mind: I am "all built up," self-absorbed in anger, extremely focused on internal anger, little interaction, easily escalated, hard to focus on questions. My body explosive, pacing or physically sitting forward in chair, moves into personal space, tone of voice loud and slightly out of control and abrupt. Body language uses exaggerated expansive outward motions. Sentences are long and I will not tolerate interruptions."*

Once these discussions take place with the SPs, separate out the mind and body descriptions. For the body section, you must translate the descriptions into behaviorally focused anchors illustrating each point on the scale. These can later be used to give detailed feedback about performance. Sample mind-body descriptors for Portrayal Scales can be seen in Tables 8.3 and 8.4

Once the scales are developed, provide the SPs with the written criteria for their files and future reference. These written criteria will be used as the standard for future role portrayal.

Some contexts do not require such intensive calibration or reproducibility; however, it is still important to discuss any affect to be portrayed that is different from the normal personality of the SP who is being trained. You can explore the SP's normal responses and encourage consistency as they portray affect when working with learners.

> I like to ask SPs to stand in a circle, close their eyes and assume a position of announced pain like "back pain 6 on the pain scale" and then open their eyes to see how well calibrated individuals perceive the pain. *Jamie Pitt*

Table 8.3 Sample anger scale

	1	2	3	4	5
Mind	No anger	Hyperaware, offended, unhappy	Irritated, sarcastic, miffed, not connecting, indifference	Sarcasm, thoughts are jumping, interrupting, condescending, distrustful and disrespectful	Self-absorbed in anger, want to physically threaten, extremely focused on internal anger, hard to focus on questions
Body	Relaxed posture, easy hand gestures, eye contact	Eye contact, erect posture, clasped hands	Answer questions quickly and curtly, decreased eye contact, rolling of eyes, arms crossed, taps toe occasionally	Glaring eye contact, short answers after long glare, stiffer body language, tone of voice louder and intonation precise	Pacing or physically sitting forward in chair, tone of voice loud and slightly out of control and abrupt, exaggerated expansive outward motions

Table 8.4 Sample pain scale

	0	3	6	9
Mind	No pain	Background pain, can be distracted from pain	Pain cannot be forgotten or cannot be distracted, able to engage in questions, but with some distraction and returns to dealing with pain	Totally focused on pain, difficult to engage, answers questions only related to symptoms – does not go off topic and may be irritated with questions that do not seem to relate to pain. Short answers.
Body		Subtle change of feeling "on edge" or "off," expression of pain comes and goes throughout discussions. When focused on pain, increases feeling of pain, voice normal except during pain episodes.	Slight increase in breathing, facial expression of pain when moving or responding, protective body positioning, voice slightly strained	Crying/whimpering, breathing fast, constant facial expression of pain, protective body positioning, voice expresses pain – breathless, strained, soft, weak

TIP Once you have established your scales, share these with the faculty so they can understand the scale and portrayals as part of case development and SP training.

Step 5A: Discuss the History Case Details (Interview)

Goal Answer questions, clarify case specifics, practice opening statement.

Objective Following Step 5A, the SP will demonstrate the ability to accurately deliver the opening statement and provide accurate answers to questions during an encounter.

An SP who knowledgeably answers questions makes the difference in the learner's ability to forget completely that she is working with simulation. In this step, history details of the case are drilled with the SP, so she understands concepts sufficiently to accurately and reliably answer learner questions.

Begin with a question and answer period of the case details to clarify any questions the SP may have of specific details of the case; this can prevent interruptions later in the training. If training more than 1 SP, share the reading of the case equally among the SPs by taking turns. This collective reading allows you an opportunity to see the SPs understanding about the details of the case together in the same moment.

Review the "Opening statement/line." The opening statement is the first response the SP provides when the learner asks the first question and ensures each learner starts at the same point within the interview. Limiting this first exchange to the opening statement also prevents the SP from volunteering too much information at the outset of the interview. We have found explaining this rationale of the use of the opening statement helps the SPs to understand the importance.

Ask the SPs to answer the following questions using the opening statement. You want to reinforce that the opening statement is used for ANY first question the learner asks. Stress the need to give the opening statement verbatim to allow all learners to start with the same information from the patient.

We suggest the SPs answer, "out loud" and if training as a group, to answer **as a group** in response to asking the following questions.

Example: Opening statement is "*I have been having headaches for the past 2 weeks.*"

SPE Q "What brings you in today?"
SP A "*I have been having headaches for the past 2 weeks.*"
SPE Q "How can I help you today?"
SP A "*I have been having headaches for the past 2 weeks.*"
SPE Q "I see you are having some difficulties with headaches."

SP A "*Yes, I have been having headaches for the past 2 weeks.*"
SPE Q "What's going on today*?*"
SP A "*I have been having headaches for the past 2 weeks.*"
SPE Q "Hi, how are you today?"
SP A "*I have been having headaches for the past 2 weeks.*"

Next, discuss the case details in-depth. In a medical case, these include the History of Presenting Illness, Review of Systems, Past Medical history, Family History, Social History and the physical examination. For a communication or non-medical case, the case materials will provide the details specific to the context and discipline.

The case details are memorized by the SP. There is no flexibility in the factual details, but it is your responsibility to train the SP to be able to realistically answer a learner's questions. In this step, the SP is doing most of the talking in response to your questions. Asking questions or performing a role-play will allow you to guide and create authentic answers with the SP. Ask the SP to describe the patient's responses to questions such as, "*Tell me about this pain*." Reinforce realistic responses with positive verbal feedback. Engaging the SP throughout this process will create authentic responses that are comfortable for the SPs.

When training multiple SPs, at key points get agreement from the other SPs on phraseology and descriptions, "*did you like the way she described the pain? – now everyone please use that phrase*." Periodically change SPs to allow others to answer your questions. This technique allows you to assess the SP's ability to realistically answer questions within the case framework and calibrate those answers.

A well-written case provides the "positive" symptoms of the scenario (See Chap. 6). However, it is necessary to review with the SPs how to answer questions that are not positive findings written in the case. In some contexts, you may train your SPs to answer from the "neutral or normal" or "not present." standpoint.

> "Drill "neutral, neutral, neutral" so SPs are aware not to give a response that might lead learners down the wrong path". Neutral responses may include "not that I can think of," and "I don't recall ever…" *Gail Furman*

Using visual methods can enhance the training and help the SP better understand and retain detailed facts. The use of imagery in clustering, listing, mind-mapping, timelines, photographs, diagrams, and tables organizes elements of the case into easily accessible details. A sample timeline is seen in Table 8.5.

If a high level of standardization is not needed, you may allow the SP to use their own life experiences to answer those questions that are not part of the written case. This approach saves training time and lessens required memorization, but you must make sure the SP's history does not conflict with the case materials or objective of the activity.

Table 8.5 Sample timeline

TODAY	I have been having headaches for the past 2 weeks.
Yesterday	I missed work and stayed in bed all day. I felt really nauseated off and on. I didn't eat anything.
1 week ago,	The headaches started getting worse, lasting longer, and I had the pain when I woke up every morning.
2 weeks ago,	I started getting headaches about 3 or 4 times a week that lasted an hour or two. I started taking Advil twice a day.

Step 5B: Training Physical Examination and/or Abnormal Findings

Goal Physical examination techniques and abnormal physical findings.

Objective Following Step 5B, the SP will be able to identify and record correctly performed physical examination techniques and respond with accurate abnormal physical findings in each encounter.

SPs must be carefully trained to recognize correctly performed physical examination techniques required by the case assessment instruments. The faculty responsible for writing the case materials must be explicit about what techniques can receive credit on a checklist. Many maneuvers have more than one correct approach (e.g. palpating the liver), and it's important the SPs are aware of all correct approaches so as to award credit appropriately. It is helpful to videotape a faculty member demonstrating the technique on an SP. These tapes can be reused for other cases as part of a library of demonstration tapes.

During role plays, practice performing incorrect maneuvers as well as correct ones to assure the SP records learner behavior accurately.

The ability to simulate abnormal physical findings allows for the assessment of examination techniques and learner interpretive skills. There are many abnormal physical findings that can be realistically simulated, including many neurological findings, acute abdomen, and abnormal breath sounds [1]. SPs must be accurate and realistic. For example, in teaching an SP to simulate peritoneal signs, the SP must respond with pain to a learner that taps her feet as well as the one who presses and releases the abdomen. Creating a library of videotapes of SP reactions to various physical examinations is helpful for training.

For those programs requiring the SP to teach and give feedback on physical exam maneuvers, conduct a quick review of terminology and case specific examination techniques (i.e. use of the terms "auscultate" instead of "listen" and "right upper quadrant" instead of "belly"). Unlike a patient who is unfamiliar with most medical terminology, the SP as a teacher must "talk the talk."

> It's so important that the SPs have credibility. That they know how to pronounce what they are talking about and can identify correct physical examination techniques. *Wendy Gammon*

Step 5B may be postponed and conducted after Step 6 to keep the flow of the training focused on the interview while the SPs are seated in the training room.

Step 6: Guidelines on "Disclosure of Information" and Prompts

Goal Structure the exchange of information in response to learner questioning.

Objective Following Step 6, the SP will respond accurately and realistically to various types of questions from the learner.

During this step, SPs are taught to recognize different types of questions learners ask in order to train SPs to provide standardized responses. The rationale behind this approach is to reward communication techniques that are patient-centered, and to help learners who do not use patient-centered approaches to recognize it, particularly for formative experiences. Establishing guidelines for standardized responses to poor technique helps the SP provide realistic responses to learner questions. Some guidelines may be general, and others may be context-specific. For example, teaching activities and formative assessments may have different guidelines than for summative assessments. SPs must be aware of the context and how the different guidelines apply.

Here are some example guidelines:

A. Medical jargon

Depending on the patient's medical knowledge in the case, the SP may use responses such as "I don't know what you mean." This requires careful training about case-specific jargon that could be used by the learner in order to standardize responses.

B. Open-ended questions

"There are at least 3 responses without giving away too much information and thereby forcing the learner to use follow-up questions. One is providing only one new piece of information, a second is repeating information already provided, including simply repeating the chief complaint, and a third is providing extraneous information to the question." *Sydney Smee*

C. Stacked or multiple questions (two or more questions consecutively asked). SPs will answer either the first question or the last question only.

D. Standardized challenges

What specific questions or statements must the SP ask or make every time? And what is the timing for these? For example, asking about something for the pain before or after the physical examination.

Establishing guidelines calibrates answers for a single SP or a group of SPs to respond consistently to all learners. However, there is a benefit to limiting the number of rules as it is less for the SP to memorize.

TIP Periodically remind the SPs their answers must be responsive to each learner's questions in accordance to the specified guidelines.

Step 7: Practice and Role-Play

Goal Provide an opportunity to practice the role, reshape, and refine performance.

Objective Following Step 7, the SP will demonstrate accurate case details and physical exam responses in response to learner's questions and maneuvers each encounter.

SP Educators stressed the importance of continuing the interactive quality of the training process. This step allows the SP to demonstrate achievement in assimilating the character, and how accurately the SP provides the case details. This is an opportunity to recruit one SP to model the case and demonstrate the correct way to portray the role before the final Dress Rehearsal. Conducting quick role-plays allows you to refine and correct any errors in performance before the SP goes home for self-study and identify inaccurate case details and performance to be specifically observed during the dress rehearsal. Practice role-plays align with the ASPE SOBP 3.2.5 – Ensure SP readiness for the simulation activity through repeated practice and targeted feedback.

Several strategies can be considered for the practice role-plays:

- An experienced SP portrays the role (modeling the standard portrayal desired) while SPE acts as the learner.
- Pairing SPs: one plays the role of the SP and the other acts as the learner. Provide questions for the SP-learner to use as a guide to the encounter.

- Round-robin role-play or a "progressive interview." The SPE acts as the learner and divides the interview into sections (e.g. History of Presenting Illness (HPI), Review of Systems (ROS), Past Medical History (PMH), Family History (FH), Social History (SH) etc.) while rotating between SPs asking questions while they are in role.
- Use of a standard setting or benchmark video/digital recording to model the performance.

This should be an iterative process with increasingly difficult and longer role-plays. Regularly check with the case author/SME during role-plays to be certain that the SPs are performing as they pictured the case.

If the SPs are not demonstrating accuracy in portrayal by the end of this step, more practice and training is necessary. You may identify only one or two SPs out of the group that need additional training, which can be conducted after the group leaves or on a different day before the Dress Rehearsal.

Step 8: Review Checklist and Criteria

Goal Review and clarify each assessment item, assess accuracy, review rater errors.

Objective Following Step 8, the SP will demonstrate accurate checklist recording after every encounter.

> Observing and recalling the medical student's behavior in order to accurately complete the checklist is among the most demanding tasks for all SPs – for the experienced and inexperienced, for the skilled actor and the non-actor alike. *Peggy Wallace* [6]

If your SPs complete assessment instruments (checklists or rating scales), the SOBPs provide some principles and guidelines. Principles 3.4.1–3.4.8 underline the need for your SPs to fully understand the assessment and have adequate time to practice for accurate completion of the assessment instruments:

- 3.4.1 Ensure that SPs understand the nature, context, and objectives of the assessment.
- 3.4.2 Ensure that SPs understand the format of the assessment instrument.
- 3.4.3 Ensure that SPs are able to complete assessment instruments in the time allotted.
- 3.4.4 Provide SPs with practice completing assessment instruments with a variety of learner behaviors.
- 3.4.5 Ensure that SPs understand both the principle and receptive experience of any physical exam maneuvers they will be assessing.
- 3.4.6 In formative assessment, ensure consistent and accurate completion of an assessment instrument within individual SPs, and among groups of SPs performing the same task.
- 3.4.7 In high stakes assessment, verify inter-rater reliability, in which a learner would achieve the same score when rated by different SPs.
- 3.4.8 In high stakes assessment, verify intra-rater reliability, in which SPs would assign the same score to an identical performance at different points in time.

SPs have a challenging job. They must realistically perform the role of the patient so the learner forgets it is a simulation and responds to the SP as if in a real clinical setting. In addition to this highly accurate portrayal, the SP must concentrate on the actions of the learner in order to reliably complete scoring instruments. In the development process (Chap. 6), each instrument used must have a rubric, or guide, containing a complete description of what constitutes a "done" mark (or anchors for each point on a rating scale), so that nothing is left to subjective opinion. Not all contexts require SPs to complete an assessment instrument (checklist). If they do, for the purpose of this step we'll assume the SP will be completing a checklist using the format of "done/not done." As stated in Chap. 6, research shows a checklist should be no longer than 15–20 items if SPs are using recall to score [7].

TIP Whether using faculty members to complete checklists or SPs, a written guide to explain the parameters of scoring every item should be used to train raters to ensure consistency and fairness in scoring.

Several strategies can be used to train SPs:

1. Ensure the SP is already accurately portraying the case with ease. The SP should be able to demonstrate the appropriate affect and be able to correctly respond to any question the learner may ask as discussed in previous steps. When this becomes second nature, the SP can then begin to concentrate on the learner's behaviors in order to complete the checklists. The transition between concentrating on portrayal and concentrating on the learner happens the same way one gets to Carnegie Hall: practice, practice, practice!
2. Use training guides/criteria: help the SP memorize every checklist item and the corresponding guide for each item. Review every item by asking the SP to read the item and the guide aloud, and discuss with the SP. This method helps some SPs to better begin the memorization process (reinforcing reading with hearing). Once the SP fully understands each item, SPs need time to study the checklist on their own. Physical examination items will require demonstration or videos made for this purpose.
3. Use videos: watch videos or live performances (being videotaped) of another SP performing the case. The video is important for checking accuracy and showing the SP the behavior linked to the item. The SP completes a

checklist while the encounter is happening, and afterward, the SPE reviews the checklist by stopping the video at the moment of the examinee's behavior for each checklist item. The SP is asked to describe why they awarded the score for the item, and the SPE discusses the rationale for accurate scoring of the item. After 2 or 3 encounters, the SP then progresses to completing the checklist immediately after the encounter to simulate what they will be expected to do during the examination. The same video stop/start discussion method for checking accuracy is used.

The SP Educator videotapes practice encounters with the SP; the SP completes the checklist after each encounter. The SP Educator develops a checklist in advance used as a guide for the encounter and as a key for checking the SP's scoring accuracy. The stop/start method is used to review the SP's accuracy while providing constructive feedback.

4. Introduce progressively longer (and more difficult) encounters to challenge the SP's recall. By the end of a 2–4-hour training session, the SP should demonstrate accuracy in completing the checklist. Depending on the case and the SP, another session may be required. A final check of accuracy prior to the live examination is a "dress rehearsal" which is described in Step 10. During the dress rehearsal, the SP scores several encounters back-to-back to simulate a live examination. The SP's accuracy during the rehearsal is assessed immediately following by the SPE, and remediation provided, if needed.

There are several Memorization Techniques that can be incorporated into the training. Many SPs benefit from "tricks of the trade" in completing accurate checklists. Here are some common ones:

(a) Kinesthetic – Adding a benign physical gesture before or after a PE maneuver. Examples include turning a watch or ring around, or crossing legs when a learner demonstrates a checklist behavior. A different gesture represents different checklist items, particular those SPs may have trouble recalling.
(b) Checklist Visualization – Picturing the checklist and mentally checking off the list while maneuvers are performed, or behaviors observed.
(c) Snapshot – Using one's senses to take a mental image of the moment an examinee performs an item. This can be done by looking at a particular spot in the room, paying extra attention to smell, or taste, or sound.
(d) Roman Room – Mentally placing PE checklist items in different parts of a familiar house or a room. This can also be done using an inanimate object, a bus, letters on a marquee, etc.

After a long day of encounters, learners may seem difficult to distinguish. SPs can be assisted to cultivate techniques between encounters to clear and refresh their minds; reading, talking, washing the face, and breathing exercises are some approaches.

Step 9: Review Feedback Requirements

Goal Review the feedback focus considering the context of the case or activity objectives.

Objective After Step 9, SPs will provide accurate and behaviorally anchored feedback to learners after an encounter.

Feedback from an SP represents the patient's perspective about the learner's communication, interpersonal and clinical skills. A review of feedback principles, objectives, logistics and required responses must be part of SP training for each educational activity where SPs are expected to give feedback. This aligns with the ASPE SOBP 3.3.1–3.3.5:

- 3.3.1 Review with SPs the fundamental principles of feedback as they relate to the planned activity.
- 3.3.2 Inform SPs of the feedback objectives and level of the learners with whom they will be working.
- 3.3.3 Inform SPs of the feedback logistics and setting (e.g., one-on-one feedback with learner, small group feedback, simulation debrief).
- 3.3.4 Train SPs to use their observations, responses, and knowledge to provide feedback on observable, modifiable behaviors in learners.
- 3.3.5 Ensure SP readiness through repeated practice and targeted feedback.

For detailed information about training SPs to give feedback, see Chap. 9.

Step 10: Dress Rehearsal or "Dry Run"

Goal Finalize performance to assess if SP is role-ready.

Objective Following the Dress Rehearsal or Dry Run (DR), the SP will demonstrate accuracy in portrayal and completion of assessment instruments for each encounter.

The DR is a final demonstration of the SP's ability to perform the case and complete assessment instruments accurately. Ideally, each SP is required to perform several encounters from beginning to end, providing feedback to the

simulated learner and completing the assessment tools after each encounter, much as they would for the planned activity. This exercise allows one last chance to perfect the presentation of the case, assess scoring accuracy with the assessment tools, and refine SP feedback (and to identify SPs that need additional training). This aligns with the ASPE SOBP 3.2.5 – Ensure SP readiness for the simulation activity through repeated practice and targeted feedback.

During the DR, expose the SPs to different levels of learner performance by developing a bank of questions from actual learner interviews. When you identify these interviews to transcribe, select a range of question styles and performances. Using actual learner questions gives the SPs an idea of the kind of questions to expect and some unexpected line of reasoning.

If possible, ask the case authors/subject matter expert (SME) to participate in the Dress Rehearsal/DR to reassure them the simulation is convincing and realistic for the level of the learner (and to provide them an opportunity for corrections).

> So, when we were developing new roles, we didn't do dry runs (dress rehearsals), so when the ASPE standards came out, we were kind of like, wow, that's a really smart idea. We need to do that. So we started doing dry runs and wow, it makes such a difference. *Amy Copperthwaite*

Performance Accuracy (Quality Assurance)

Goal Maintain consistency, calibration, and quality of role portrayal.

Objective Following implementation of a Quality Assurance program, SPs will demonstrate continuous accuracy in portrayal and recording.

Consistent feedback to the SP on their performance and scoring accuracy contributes to the maintenance of the standards that were established during training. Having quality control processes is critical to conducting valid and reliable simulations [8].

Maintaining performance accuracy over multiple learners and days is identified as a common challenge by SPEs, and random observation is a common solution. The higher the exam stakes, the more regular observations are needed.

A quality assurance form is needed for each case to assess the SP performance during the Dress Rehearsal and throughout the simulation activity. The form contributes to delivering standardized feedback to the SP. The form should contain the elements of the portrayal that must be standardized (affect, behavior, responses to the physical exam, challenges, questions) and copies of the assessment instruments the SP is charged with completing. If the SP is providing feedback, a checklist for the elements of constructive feedback is included. These forms can be completed by the SPE and the SPs who have been trained in the same case while observing an encounter. SPs observing the case they portray results in an added benefit of calibration within the group portraying the same role, developing the same language when answering learner questions. See Appendix 1 for a sample quality assurance form.

> I create a portrayal checklist, which I find invaluable for training. This is what we fill out as we are watching each other perform, whether it is during training or actually during an assessment. *Wendy Gammon*

After 20 years of working with SPs, educators at Maastricht University conducted a search for a reliable and valid instrument to assess SP performance. Wind et al. (2004) noted an absence of instruments evaluating the quality of the SP performance in the literature. Therefore, in 2004 the Maastricht Assessment of Simulated Patients (MaSP) was developed and shown to be a valid and reliable way to evaluate the performance of SPs [9].

Summary

We could dedicate an entire book to the practice of training and preparation processes of human role players in simulation. SPs must be able to provide a high-quality performance to engage the learner and maintain psychological and emotional fidelity of the simulation. SPs perform as many as three functions: representing the patient in an authentic manner, assessing learners, and providing feedback about the learner's performance. We provide a Ten-Step training framework and important insights into how standardized patients are trained to manage these multiple tasks while integrating the ASPE SOBPs. See Table 8.6 for a Summary Checklist for the 10 Training Steps.

Table 8.6 Summary checklist for the 10 training steps

Step 1. Orient the SP to the educational activity
Goal: review the purpose, objectives and logistics of the educational activity with the SP.
Step 2. Build the "shared mental model"
Goal: guide SPs to bring the character to life.
Step 3: Discuss the "unknown" – answering unanticipated questions
Goal: develop a deeper layer of understanding of the case and character.
Step 4: Calibrate affect using portrayal scales
Goal: standardize and calibrate the affective part of the role.
Step 5a: Discuss the case details
Objective: answer SP questions, clarify case specifics, practice opening statement.
Step 5b: Training physical examination and/or abnormal findings
Goal: review physical examination techniques and/or train abnormal physical findings.
Step 6: Review the guidelines on "disclosure of information" and prompts
Goal: structure the exchange of information in response to learner questioning.
Step 7: Model and role-play
Goal: provide an opportunity to practice the role, reshape, and refine performance.
Step 8: Review assessment instrument
Goal: review and clarify each assessment item, assess accuracy, review rater errors.
Step 9: Review feedback requirements
Goal: review the feedback focus considering the context of the case or activity objectives.
Step 10: Dry run (Dress Rehearsal)
Goal: finalize performance and assess if SP is role-ready.
Quality assurance during and after the activity:
Goal: maintain consistency, calibration, and quality of role portrayal.

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Appendix 1: Sample Portrayal Quality Assurance Form

Performance accuracy: were the facts of the case presented accurately?			
Opening statement given verbatim	yes	no	n/a
Onset			
Duration			
Description of pain			
Pain scale			
What makes it better			
What makes it worse			
Past medical history			
Family history			
Social history			
Scripted case challenge/question			
Describe any errors (e.g. volunteered, withheld, misstated facts):			
General comments about portrayal:			
Physical examination accuracy	yes	no	n/a
Did the pain level portrayed reflect the trained level for the case?			
Did the SP accurately portray the positive finding?			
Describe any errors:			
General comments about physical examination:			
Authenticity	yes	no	n/a
Level of affect matched the training materials			
Portrayal was realistic (not robotic) throughout the encounter			
SP adapt the script realistically to fit the situation when untrained issues were brought up by the physician?			
Maintained the role throughout the encounter			
Describe any errors:			
General comments about authenticity:			
Response to learner	yes	no	n/a
Closed-ended questions: the SP answered appropriately with one word			
Open-ended questions: the SP answered appropriately with sufficient information related to those questions			
Responded to use of jargon			
Providing feedback	yes	no	n/a
Asked the learner to self-assess first			
Used "I" statements when describing reactions to behavior			
Identified at least one positive behavior			
Identified at least one behavior for improvement			
Used a feedback "sandwich"			
Describe any errors:			
General comments about feedback:			
Does the SP need additional training? If so, please describe:	yes	no	n/a

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