Gayle Gliva-McConvey
Catherine F. Nicholas
Lou Clark   *Editors*

Comprehensive Healthcare Simulation: Implementing Best Practices in Standardized Patient Methodology

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Comprehensive Healthcare Simulation: Implementing Best Practices in Standardized Patient Methodology

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Foreword

Human simulation has grown tremendously since Howard Barrows trained his first "programmed patient" in the 1960s. The ability to have a "patient" available on demand, with specified characteristics, personality, and history and physical findings, and to titrate the difficulty of the case to the level of learners was electrifying.

The impact on the education of students in the health professions has been profound. Through the 1970s and 1980s, many medical students (myself included!) had never been directly observed while interacting with a patient. Simulated or standardized patients (SPs), as they came to be called, provided an opportunity for essential clinical skills to be observed under controlled conditions. The advantages for learner assessment are myriad, including the ability to systematically sample the clinical content, skills, and tasks to be assessed, the option to video-record encounters without compromising the privacy of clinical patients, and the ability to test every student on the same set of patients, in a fair and equitable way. The potential of human simulation for promoting learning is equally compelling, allowing students to practice behaviors and skills ranging from obtaining a history and performing a physical exam to negotiating difficult conversations effectively and empathically. Simulation uniquely allows learners to make their mistakes in a safe environment, in which they can be observed and coached without risk of harm to patients. Human simulation, arguably the highest fidelity simulation, is especially well-suited to challenges involving communication, interpersonal skills, and professionalism, as well as hands-on manipulation of the human body.

The past two decades have seen an explosion in the use of SP or human simulation methodology. SP-based workshops and assessments are essential curricular components across the health professions, for medicine, nursing, pharmacy, dentistry, veterinary medicine, occupational therapy, physical therapy, athletic trainers, first responders, and hospital chaplains, among others. SPs have been utilized across all levels of training, from prelicensure students, residents, and fellows to hospital staff and clinicians in practice. The person being simulated may be a patient, family member, or neighbor or a student, faculty member, administrator, or any other individual. SPs can be deployed in combination with other simulators in multimodal or hybrid simulation, as family members and embedded participants in mannequin scenarios; in conjunction with physical finding simulators, such as heart and lung sound simulators, to help students learn to recognize and interpret abnormal findings; and in combination with part-task trainers such as IV arms or suture pads to provide the human context of procedural skills.

Human simulation has been leveraged in the service of patient safety, quality assurance, and research; unannounced or incognito SPs, for example, provide insights into the performance of clinicians and healthcare systems in both routine and crisis situations. More recently, human simulation has moved beyond healthcare, bringing its benefits to learners in teaching professions, law, police, firefighters, the military, and others. It is no exaggeration to say that virtually any endeavor requiring human interaction in difficult and complex situations can benefit from human simulation.

Whatever your profession or purpose, the ability to deploy SPs appropriately, effectively, and efficiently is critical to reaping the benefits of human simulation. The Association of Standardized Patient Educators (ASPE) has been instrumental in developing best practices for human simulation over the years; the editors of this volume are leaders in the field, with a

wealth of experience and wisdom. Our thanks to them for sharing their insights and for facilitating the further growth of human simulation in this most-needed and eagerly awaited volume.

April 2019   Rachel Yudkowsky, MD, MHPE
                                        Dr. Allan L. and Mary L. Graham Clinical Performance
                                            Center 2000–2018, Department of Medical Education
                                               University of Illinois at Chicago College of Medicine
                                                                                    Chicago, IL, USA

Preface

In the human simulation field, we have evolved from the time when a select few healthcare training programs started using SP methodology in the 1960s and 1970s because those early adapters saw, firsthand, the benefit human simulation brings to training healthcare learners in clinical skills. Now, in an era in which SP methodology is documented by scholarly research as effective and rigorous across health professions and beyond, we are growing and our profession is formalizing as a significant part of the larger healthcare simulation industry. The *ASPE Standards of Best Practice* published in 2017 is a significant contribution to our field, in that what we have known to be anecdotally true for years was disseminated ubiquitously as the criteria for which we hold up our profession. As currently written, the standards detail fundamental guidelines for working in human simulation, most specifically with standardized or simulated patients (SPs) in healthcare education and training. They offer guidance but are admittedly malleable in that—much like the design of the US Constitution—the authors anticipated that this is a living document which will be influenced and amended as our dynamic field continually builds on and reinvents itself. The publishing of these standards coincided with our coming together to write and edit this book. So, it seemed a natural connection to explore these standards as a framework for this book, and the results are contained in this volume.

In order to fully explore the present state of our human simulation fields, we also realized it was essential to invite partners into the dialogue. The result is that we are joined by nearly 40 SP educators from around the globe who have contributed their time, talents, and expertise so generously. It is through our combined efforts that we offer a multivocal approach to subjects relevant to our field including SP training, scenario development, communication and feedback training, professional development, program administration, emotional and physical safety for SPs, and more. So, this book was written by SP educators for SP educators, in hopes that we may continue to advance our field in keeping with standards of best practices experienced in many and various programs and health professions and by those new and veteran to the field.

Our hope is that this collected work inspires and invigorates you to continually push yourself to work at the highest levels in keeping with these standards and also to question and invent new ones when necessary. That is how our relatively nascent profession has gotten this far since its inception with Dr. Howard Barrows in the 1960s. We begin this book with Sydney Smee's essay "An Accidental Profession" and planned to end with a chapter on "Reimagining the Future of SP Methodology" which was not coincidental. However, on March 11, 2020 COVID-19 was declared a global pandemic and SP Educators responded with an incredible industry pivot to bring human simulation activities online, and so we knew this innovation needed to be the new final chapter of this book which became "SP Methodology Reimainged: Human Simulation Online". We understand and know firsthand that with every innovation and

the ever-growing demand for the work that we provide for so many learners comes endless logistics, long hours, and a need for increased personnel with which to complete it. Amidst all that goes with the detailed administrative work and training we provide, we begin and end this book on philosophical and hopefully inspiring notes to urge you to embrace the creativity and visionary thinking that goes hand in hand with your work and our field. We are inventors. We are artists. We are healers. All of us, whatever our backgrounds, are educators because we are drawn to and undertake this work in support of healthcare learners and—ultimately—the patients they serve. Together, we engage in life-sustaining work through human simulation.

Virginia Beach, VA, USA   Gayle Gliva-McConvey
Burlington, VT, USA   Catherine F. Nicholas, Ed D, MS, PA
Minneapolis, MN, USA   Lou Clark, PhD, MFA

Editor's Note

For the purposes of this book, we define SP as individuals who are prepared (trained) for any human simulation role. SP tends to be our most common acronym or term in this profession due to its historical origins and has become an umbrella term for multiple portrayals as the methodology has expanded to different professions and contexts. For those readers new to the field, SP can often mean standardized/simulated patient, clients, family members, pet owners, clergy, security officers, participants, etc. For brevity, we are using the abbreviation SP throughout this book to represent all human simulation roles.

Acknowledgments

I would like to acknowledge the many people who supported me throughout this writing process: first my family—my husband of 42 years, Paul, who has been both my cheerleader and taskmaster (yes, we are still married); my daughter Michelle, who not only brought an objective perspective to my chapter's content but also created figures at my request at the drop of a hat; and my sons Daniel and Scott who constantly sent me messages of encouragement. I also want to acknowledge my fellow SPEs who worked with me for many years at EVMS: Lorraine Lyman, Amelia Wallace, Temple West, Alba Woolard, Pam Cobb, and Hilarie Haley. Their dedication and amazing creativity have contributed and expanded both the SP methodology and my own professional growth.

I want to formally thank all the SPEs who contributed to this book, not only for the expertise they shared (in writing or through interviews) but for the enthusiastic support when I told them, "I'm thinking of writing a book." Without hesitation they agreed to "anything you want Gayle."

I can't forget a special thank you to my fellow editors Cate Nicholas and Lou Clark. It has been an incredible journey and adventure with remarkable educators.

Finally, I want to acknowledge and thank my mentor Dr. Howard Barrows. Howard for some reason saw something in me and took the time to share his passion of experiential learning and simulation. I will be eternally grateful.

Gayle Gliva-McConvey

The process of writing and editing a book is definitely a team sport. I want to thank:

- My family—my husband Alan, my daughters Jae and Emma, and my son Maxx for their support during this process
- The faculty and staff of the Clinical Simulation Laboratory at the University of Vermont for the support they gave and the space they provided for me to work and meet with my coeditors
- All of the authors who said "Yes!" and made this book possible
- All those SP educators who came before me and inspired me to follow in their footsteps

Finally, I want to thank my coeditors Gayle Gliva-McConvey and Lou Clark and to the amazing women and SP educators who taught me a lot, put up with my no-nonsense emails, and made all the work worthwhile.

Let's do it again but not so soon.

Catherine F. Nicholas

Heartfelt thanks to those mentioned formally here and beyond. Let's start with the beyond— our SPs. As SP educators, we are indeed nothing without them. Thank you to SPs everywhere!

Thanks to our SPE contributors for your expertise and generosity, specifically to former colleagues at the University of New Mexico School of Medicine and Uniformed Services University of the Health Sciences for your support and permission to use curricular materials in this book. Thanks to current colleagues at M Simulation and the University of Minnesota for

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About the Editors

Gayle Gliva-McConvey is a Consultant for human simulation in education. She is the Founding Director of the Professional Skills Teaching and Assessment Program at Eastern Virginia Medical School with a tenure of over 20 years. Under the tutelage of H.S. Barrows (creator of SPs), she trained/directed the first Standardized Patient Program at McMaster University in 1974. She has developed and integrated the Standardized Patient (SP) methodology in healthcare and various nonmedical professions around the globe. Gayle worked with the Medical Council of Canada to pilot SPs for the Canadian national licensure examinations and the NBME to develop standards for SP training for the US Step 2 Cs. Gliva-McConvey received the first award recognizing her contributions to the SP methodology in 1998 from the AAMC. She was a founding Board Member of the Association of Standardized Patient Educators (ASPE) in 2001 and served as President from 2012 to 2014. She represented ASPE on the Society of Simulation in Healthcare (SSH) Certification executive and Terminology & Concepts and Inaugural Review and Member Selection Committees and continues to sit on several committees for both organizations. With publications spanning 40 years on SP development, she continues to deliver presentations on the SP methodology at national and international conferences. Retiring from EVMS in 2016 from operational and developmental program leadership responsibilities has allowed her time to refocus her attention to consulting opportunities in human simulation worldwide and contribute further to her expanding educational publications.

Catherine F. Nicholas, Ed D, MS, PA is the Director of Simulation Education and Operations for the Clinical Simulation Laboratory (CSL) at the University of Vermont (UVM) which is the academic simulation hub for the Larner College of Medicine, College of Nursing and Health Sciences, and the UVM Medical Center. The CSL is dually accredited by the Society for Simulation in Healthcare (SSH) and the American College of Surgeons (ACS-AEI). The CSL also has a ACS/AEI Simulation Fellowship Program. As Simulation Educational Consultant, she works with faculty to integrate simulation-based educational teaching and assessment activities into formal curriculum, programming and continuing healthcare education. She is an Assistant Professor in OB-GYN and Family Medicine and retired from private practice after 35 years.

Dr. Nicholas is active in the Association of Standardized Patient Educators (ASPE) having served as the Vice President for Operations and the Chair of the Grants and Research Committee. She was named the ASPE Educator of the Year for 2011. She is the Chair for Quality on the SSH Certification Council and is a SSH Accreditation Site Reviewer. She is an active Member of the ACS/AEI Fellowship Committee and past Member of the Curriculum and Faculty Development Committees.

Dr. Nicholas is interested in faculty development in feedback and debriefing skills, patient-centered/relationship-centered communication skills and the effect of gendered communication on interprofessional teams.

Lou Clark is the Executive Director of M Simulation with the Office of Academic Clinical Affairs and an Associate Professor with the Division of General Internal Medicine at the University of Minnesota. As Executive Director Dr. Clark provides leadership in the overall strategy and operations to advance and support health professions simulation at UMN. She has worked in related positions in the healthcare simulation field since 2007 including as the Deputy Director of Clinical Simulation for the Val G. Hemming Simulation Center at Uniformed Services University of the Health Sciences. In this role, she oversaw Clinical Skills programs that support health sciences students at USUHS and partnered with several GME colleagues at Walter Reed Military Medical Center in support of resident education. As a researcher, she studies issues central to clinical communication especially compassion and empathy in healthcare simulation training. Representative peer-reviewed scholarship includes publications in *Simulation in Healthcare*, *Health Communication*, and *Communication Monographs*. She is also an award-winning Theater Artist of many years, and this background is central to her approach for simulation work and in coaching healthcare trainees in support of their clinical communication skill development. Service work includes a past term on the ASPE Board of Directors as the Chair of the Grants & Research Comittee and as SP SIG Chair for SSH. Since 2016, Dr. Clark also serves as an Instructor with expertise in medical education for the Health Communication Online Master's Program at University of Illinois Urbana-Champaign. She holds a Master of Fine Arts in Dramatic Writing from the University of New Mexico and PhD in Human Communication from Arizona State University.

Introduction – The Evolution of This Book

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Lou Clark, Gayle Gliva-McConvey, and Catherine F. Nicholas

Abbreviations

ASPE	Association of Standardized Patient Educators
CPX	Clinical Performance Examination
CSA	Clinical Skills Assessment
GTA	Gynecological Teaching Associates
HSC	Human Simulation Continuum
LGBTQ	Lesbian, Gay, Bi-sexual, Trans-sexual, Queer
MUTA	Male Urogenital Teaching Associates
PETA	Physical Exam Teaching Associates
SOBP	Standards of Best Practices
SP	Simulated/Standardized Patient

The Evolution of This Book

During the 2 years we wrote and edited this book, we met on the phone together regularly on Friday afternoons from different time zones, offices, homes, states, and sometimes—when we were fortunate—in person. The collaboration on this book spanned milestones in our lives including retirement, births of grandchildren, children moving away from home, helping our aging parents, deaths of loved ones, job changes, commuter marriage, and professional accomplishments and setbacks. Through it all, these regular chats grounded us and supported us in moving forward together in

the production of this book. So, we thought it made it made sense to introduce the book with a conversation among the three of us. We audio recorded the conversation which took place on Friday evening, June 7, 2019 in Orlando, Florida the night before the 18th annual Association of Standardized Patient Educators (ASPE) conference. This seemed especially fitting as our book is framed around the recently published ASPE Standards of Best Practices for working in human simulation which we reference throughout the book. What follows are our individual and collective thoughts as to why we, with our many incredible collaborators, wrote this book right now. Our sincere thanks to you—the reader—for your interest and for reading. We hope the content contained in these pages supports our profession, our collaborators, our SPs, and especially you—the SP Educator— in the important work that we do.

A Conversation Between Gayle, Cate, and Lou: *Why This Book Right Now*?

Gayle: I think it's been percolating over the years. Howard (Barrows) contacted me in 2006 to help update and re-write his second book on the SP Methodology, but we weren't able to coordinate our schedules at that time. Regretfully he died in 2011 and we never got the chance. However, it planted the seed that a "how-to" book that would be based in educational theory, something easy to read and to reflect techniques that have matured over the years might be useful to both experienced and novice SP educators. I also knew that I could not do this by myself and wanted to work with dynamic and respected educators that shared my passion and vision. Lou, when you visited EVMS, we spontaneously had an opportunity to collaborate on revising an article that incorporated SPs. Not only did we work well together and had some fun, but I was impressed with your diverse per-

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spectives on the SP methodology. Cate, we talked a little bit about it over the years and said we "needed to do something" together. Of course, whatever we did together appealed to me since you are so very well respected in our profession in both research and innovation. I was thrilled both of you were willing to even consider working with me!

Cate: I saw a big gap in the literature for a comprehensive book – a practical guide – I envisioned book written by SP educators for educators working in Human Simulation and seeking to implement best practices.

Gayle: I'm at the end of my career, and this book is something that I would like to leave the field and the profession. It always resonated with me that Howard always said there's not one right way to train [SPs], but there's lots of ways to poorly train them. So, when I hear people say, "well, I train by sitting down with people and reading the case to them," it really worries me because that goes against the whole idea of engaging SPs and bringing them into that shared mental space of thinking about who this patient is and using specific techniques that have been established over the years.

Lou: I was really interested to collaborate with you on this project from my perspective as an SP educator who also became a researcher. Because of this dual background, I'm really passionate about making research practical in order to solve problems in ways that are accessible to all audiences. As you said this is a "how-to" book, but also one that's informed by the important literature in our field as well as framed around the ASPE Standards of Best Practice. So, I think it's a really nice blend. Something else that I was passionate about is that we explored ways of writing parts of it in more of a conversational style with practical examples and not writing it in straight up textbook style.

Gayle: And to have an opportunity to work with and represent different approaches by recruiting colleagues across the globe. The number of authors that we approached is impressive and they were all *so* excited and willing to share their expertise and experiences. That just reinforced that, hey, this book is needed. We have an incredible group of enthusiastic educators, each willing to make this book a daily resource for other SPEs.

Lou: We also had a rich resource of people who represent interdisciplinary backgrounds. This book reflects the many and various disciplines and professional backgrounds that inform our work and make our profession truly unique. So, I feel good that we have brought that to the book. You know, the three of us are very different, and then the people who we have as our contributors are so different in their professional backgrounds, too.

Cate: The other piece for me here is that many people get a voice like this through research and publication. Those people are faculty, and most of our SP educators are staff. This book was a way to give voice to those people who may not fully understand the impact that they have.

Lou: What have we learned from writing this book?

Cate: I learned a lot about what it means to commit to developing a culturally and linguistically diverse cohort of SPs. I did a deep dive into what does that really look like and what does that mean? That was a real gift for me. I've been doing work with human trafficking and trying to integrate LGBTQ care into the curriculum for years. Thinking about the work we do through a social justice framework gave me a deeper understanding of what SP educators can do to address healthcare disparities. It also caused me to reflect back on SP Educators' impact on healthcare education. You know, focusing on the patient long before people were talking about patient centered care. Focusing on that patient voice as being an important one that contributes to educating future healthcare providers. That's our tradition – that's what excites me.

Gayle: We interviewed 20 people around the world to look at how they train SPs. We asked them about how they apply the SP methodology, their challenges, and what they find fascinating. What I learned was this passion is really strong across SP Educators. Also, that we share such common foundational knowledge about the methodology—the training, the feedback and completing checklists. But we also have such different, unique perspectives on how we work on a day-to-day basis. So, I learned a lot of different techniques that people have developed through in their daily work and how effective some of them can be. And you know, if I was still working full-time, I'd be employing a lot of these because they're just so creative and innovative. While the methodology is 57 years old this year, people are still being inventive and imaginative about it. So that passion, that creativity, that need to live on a day to day basis is something that I was really—and I like the word "gifted"—I was gifted with. Just being with the people that we interviewed was the gift as well.

Lou: I've learned so much in every conversation I've been privileged to have with the contributors to this book. Every contributor has brought their own

perspective, and I'm going back to something Cate said here, about striving to have many voices represented. So, for me, it's a privilege and also transformative because any time you get to hear that breadth of perspective, you just learn from that. And I've learned from both of you. It's an honor to write a book with your mentors. I get to learn every time we talk. Specifically, I've also learned more about where our profession has come from and considered more deeply where our profession is headed. That is really a gift because it allows one to take stock. I hope others who I consider to be peers and SP Educators newer to the profession feel the same way and that we ask ourselves: What can we learn from where we've been and how can evolve our profession in meaningful and visionary ways?

Cate: I think about the fact that the book is ending with reimagining the future of SP methodology. One of the things I really hope is that our readers do ask the question, "What's next?" And then pursue that because the legacy of working in this field is always asking "What's next?" Because of who we are and what we do we need to ask ourselves: How can we engage in human simulation and human interaction and communication and be co-creators with our technological counterparts? I think that's a really important part of the "What's next?".

Gayle: And with the ASPE Standards of Best Practices now in print we can integrate the standards into our daily work, consistently. In writing this book, we just fell in line with the recent publishing of the ASPE SOBPs [1].

Cate: It just felt like the right time.

All: *What could we possibly say to our readers by way of an introduction that we haven't already said in this book? What do we need for them to know that we and our contributors haven't already shared? Maybe it's something personal, something for them? What is a gift we can give from us to them?*

Cate: Pride. Pride in the work they do. Seeing themselves as professionals and understanding the role that they play. They see themselves in the pages, and can say, "I do that." Right. "I do that, I do that." So, it's reinforcement, and they can take pride in what they contribute to this very important community of practice.

Lou: You two are both great examples of careers sustained over time. I'm in a different place, right? Kind of in the thick of it, in the middle of it. But for me, that's been a gift to learn from both of you how you keep reinvigorating your passion for the work over time. I think it's useful for our readers to think

about: When you have tough times, when you're in the middle of a challenge—and we all have them and some are bigger than others—how do you pick yourself up and say, "But, I'm still passionate about the work."? That's the gift I want to share with others when they read this book. Maybe they're having a bad day and they can pick it up and they can say, "But look, this is what excites *me*, and this is why I'm still doing the work, and I'm going back out there to do it, and I'm not alone."

Gayle: And I think it's that the contributions to the methodology continue. It's evolved. The creativity and the innovation contributing to the methodology just makes it stronger. We talk about pillars of the methodology, and that's because people are continuing to look at it and recognize it as an established methodology. We need to continue to massage it, grow it, make it more evident to people outside our professional community. You know, that's really the gift that I'd like to pass on—continue to develop the methodology. Even though it's 57 years old, it's still only a teenager. Howard (Barrows) would say it takes 30 years to "move the ship" in medical education. And he was right. Moving that ship to continue developing the methodology into adulthood I think is, yeah, it's fascinating to me.

We hope it's fascinating to you too and thank you for reading! – Gayle, Cate and Lou

After Our Dialogue…Framing and Introducing This Book

This book is intended to be a *How To* book, emphasis on the – <u>How</u>. Each chapter could and should be a book unto itself, and all are written for SP Educators by SP Educators. There are topics for every level of experience and expertise, whether you are a novice or experienced simulation educator. The span of topics ranges from a historical perspective in Chap. 3 on how a revolution took hold to a futuristic reimagining of the SP Methodology in Chap. 17. We were able to add Chap. 18 in response to the COVID pandemic and how it has impacted our approach to Human Simulation online. Some highlights from each chapter include:

Chapter 2 – An Accidental Career: In 1973 working with SPs was serendipitous and becoming an SP Educator was an accidental job. One SP Educator shares her transformative journey from beginning an accidental career to one that is intentional in the 2000's.

Chapter 3 – How a Revolution Took Hold: The introduction of simulation, the paradigm that shifts us from lectured-based to practice- based, revolutionized the way in which we teach medicine. Human simulation allows students to prac-

tice with live people in a safe environment; to *apply* knowledge and skills in real time, receive immediate feedback from their expertly observed encounters with "patients". As a byproduct, it also allows faculty to effectively develop gold standards of practice for each year of training as well as establish performance criteria for graduation. Many clinical faculty already look back 15 years and say, "how could that have NOT been a part of medical education?" This chapter chronicles the revolution in healthcare education curricular reform highlighting the evolution of the SP methodology alongside it.

Chapter 4 – Ensuring a Safe and Supportive Work Environment: Safety is crucial to guarantee an optimal simulation experience for learners, SPs, faculty, and SP Educators. Understanding that SP methodology is the tool and the SP is a human collaborator and member of the education team is critical. In this chapter, we explore the unique relationship and responsibility the SP Educator has in creating and maintaining a safe work environment for the SP.

Chapter 5 – The Human Simulation Continuum – Integration and Application: In this chapter we identify and explore the full spectrum of applications within the human simulation modality. Human simulation applications are conceptualized and introduced within a theoretical framework we call The Human Simulation Continuum (HSC) Model. We discuss how SP Educators may apply the HSC Model to the daily decision-making processes in their routine work.

Chapter 6 – The Development of Scenario and Training Materials: This chapter expands on best practices for creating human simulation scenarios including case content, training materials, and assessment instruments. We featured the recommended case template from the Association of Standardized Patient Educators (ASPE). The ASPE case development template is publicly available on the ASPE website under the resources tab at https://www.aspeducators.org/. While SP Educators use a breadth of templates as you will see throughout this book, the ASPE template is a reliable and often used option. This chapter also features recommendations and examples for developing cases and associated training materials needed for successful implementation of interprofessional scenarios.

Chapter 7 – Training for Authentic Role Portrayal: SPs provide authentic human perspectives in simulation. In this chapter, we will focus on the role and responsibilities of the SP Educator (SPE) in the process of training SPs for role portrayal. Drawing on the ASPE Standards of Best Practice (SOBP) published in 2017 and recognized SP training techniques including practices of a diverse international group of SP Educators, a general training process is outlined.

Chapter 8 – How to Train Your SPs in 10 Steps: This chapter builds on the general information contained in the previous chapter. It features specific strategies and exemplars to help SP Educators train SPs for numerous and varied educa-

tional simulation activities. Strategies covered include building a shared mental model, how to approach unanticipated questions from learners, calibrating affect and emotional portrayal, guidelines on disclosing information, and more. This chapter provides a 10 Step Training approach that can be easily applied to any SP training session and for any context.

Chapter 9 – Cultivating Compassionate Communication with Clinical Competence: Utilizing Human Simulation to Provide Constructive Feedback to Learners: Providing constructive feedback to learners and assessing their clinical communication skills are routine work that SPs perform. Just as there is no one accepted communication skills curriculum or assessment tool in healthcare training programs, there is no one best way to coach SPs on the nuances of learner communication styles. So, this chapter examines a variety of practical concepts and tools SP Educators may use to support SPs in providing well-crafted, patient-centered verbal and written feedback to guide learners in clinical communication skill development. Compassionate communication is specifically highlighted and considered in relation to patient care and provider wellness.

Chapter 10 – Program Management & Administration: This chapter provides guidance to accomplish the administrative demands of an SP Program. Regardless of size, SP programs are responsible for administrative and management practices, including planning, quality assurance and control, SP recruitment, hiring, and orientation. Clearly stated policies and procedures allow an SP program to demonstrate that it meets institutional and professional standards in our field. This chapter also details approaches to meeting program goals, supporting accountability for stakeholders (SPs, SP Educators, learners, faculty, and other staff) and how to encourage continuous improvement.

Chapter 11 – Professional Development of the SP Educator: As our profession has developed and expanded beyond healthcare training fields, so has the need for us to grow in our knowledge and related skill sets. SP Educators have more opportunities than ever before to advance their own education through workshops, conferences, and formal training programs. This chapter will explore SPE job duties in relation to how one develops a career as a SPE and promotes the profession through leadership and scholarship.

Chapter 12 – Broader Applications of Communication: Using the Human Body for Teaching and Assessment: Standardized Patients can be reliably trained and utilized as educators to teach physical exam skills with or independently of teaching communication skills. During this chapter you will find information about the recruitment, hiring, and training of Physical Exam Teaching Associates (PETAs), Gynecological Teaching Associates (GTAs), and Male Urogenital Teaching Associates (MUTAs), as well as the design and implementation of these programs within a simulation center.

Chapter 13 – Human Simulation Beyond Healthcare: Experience, Reputation, and Relationship Building: SP

methodology has expanded beyond healthcare education training in such areas as architecture, law enforcement, the chaplaincy, human resources, and business. In this chapter we describe our experiences of developing human simulation projects across an expanded professional education landscape as seasoned simulated patient educators informed by different backgrounds and institutional knowledge. In addition to the project-specific details we share, we find the most essential ingredients for successful simulation work beyond healthcare fields with new clients include experience, reputation, and relationship building.

Chapters 14 and 15 – SP Methodology and Programs around the World: International contributions to the Standardized Patient (SP) methodology have increased exponentially over the past few decades. In this chapter, we explore the non-US world of human simulation and provide a general snapshot of the SP methodology based on a systematic review of the literature from 72 countries and supported by data from a survey sent to SP Educators by the chapter author specifically for this book. Through these reviews, an international framework template was designed to reflect the colorful world of SP methodology in the various professions among various countries. A case example from the University of Chile provides an approach to incorporating and implementing a highly successful SP program that provides support to eight healthcare disciplines: nursing, speech and language therapy, physical therapy, nutrition, medicine, obstetrics, occupational therapy and medical technology.

Chapter 16 – Misconceptions and The Truths: In this chapter, we address some common misconceptions about SP Methodology, drawn from the reports of a wide range of SP educators (SPEs) from around the world. We offer evidence for clarifying these misunderstandings that can be shared with stakeholders such as faculty, other SPEs or SPs, to promote the implementation of SP methodology in a safe and effective manner.

Chapter 17 – Reimagining SP Methodology: Multiple voices are intentionally represented in this chapter to imagine a professional future informed by individual experiences but which is collectively and communally constructed to showcase the diversity of backgrounds, disciplines, and creativity that makes our profession truly unique in its contributions to healthcare education for our learners and the patients for whom they care.

Chapter 18 – SP Methodology Reimagined: Human Simulation Online - This chapter details how SPEs trained and implemented fully online SP activities for health sciences learners as part of the COVID-19 response. However, while COVID-19 was a stimulus, it has highlighted new potential and opportunities for SP based curricula using online platforms as part of a collaborative educational design process. It is likely that online SP training and events will continue as innovation born from this crisis.

Terms Used in This Book

Human Simulation "Human role players interacting with learners in a wide range of experiential learning and assessment contexts" [1, p 1]. Often confused with the term Human Patient Simulators which was introduced by the computer-based mannikin and simulation technology community in the 1960's. Human simulation applications are prepared and incorporated along a continuum – role-player, structured role player, embedded participant, simulated patient or participant, standardized patient and standardized patient for high stakes certification or licensure assessments – all individuals prepared by SP Educators (SPE).

SP Educator (SPE) "Those who work to develop expertise in the SP methodology and are responsible for training and/or administrating SP-based simulation." [1, p 3]. This book is specifically written to clarify and make explicit the role of SP Educators in simulation work and healthcare training.

SP For the purposes of this book, we define SP as individuals who are prepared (trained) for any Human Simulation role. SP tends to be our most common acronym or term in this profession due to its historical origins and has become an umbrella term for multiple portrayals as the methodology has expanded to different professions and contexts. For those readers new to the field, SP can often mean standardized/simulated patient, clients, family members, pet owners, clergy, security officers, participants etc. Many SP Educators feel strongly about what SPs are not, namely actors. While SPs use many of the skills needed by professional actors, the fact that they work in service of education and assess and provide constructive feedback differentiates these two occupations. It is to the advantage of all of us in this profession to come together and ultimately agree on common terminology that covers all these roles so that we can move the field forward.

Objective Structured Clinical Examination (OSCE) The term OSCE has become a catch-all term for clinical skills assessments. It was originally a timed multi-station assessment (between 5–10 minutes) that tested a learner's ability to perform a single skill (i.e. examine a shoulder, interpret an x-ray) and usually observed by an examiner. The OSCE was not meant to assess the learner's ability to use that skill in a presenting problem.

Over the years, the OSCE has "been broadened in its scope and has undergone a lot of modification to suit peculiar circumstances. In the United Kingdom, United States, Canada and indeed most reputable colleges of medicine the OSCE has evolved into the standard mode of assessment of competency, clinical skills, and counselling sessions satisfactorily complementing cognitive knowledge testing in

essay writing and objective examination." [2, p 219]. An OSCE may or may not include real or simulated patients.

In this book, we tend to avoid the term OSCE due to its original definition and prefer to use the acronym terms Clinical Skills Assessment or Clinical Performance Examination.

Clinical Skills Assessment (CSA) or Clinical Performance Examination (CPX) This term was meant to be more specific to the assessment of competency and learner's ability to use all of their clinical skills depending on the presenting problem. Designed to assess the whole clinical performance of a learner as if they were practicing in an actual encounter. This multi-station assessment is longer (15–20 minutes) and assesses multiple skills (taking a history, conducting a physical examination, providing patient education, discussing a management plan etc.). The CSA/CPX is generally SP based and an examiner may or may not be present (depending on the context). As you can see, the terms OSCE/CSA/CPX have become interchangeable.

Scenario For the purposes of this book, a scenario includes all components needed to implement a SP-based activity such as the activity learning objectives, SP case, checklists, feedback requirements, activity format and logistics, student instructions and post-encounter requirements (etc).

There is extensive research in the field to promote further reading and expansion on all of these ideas, a comprehensive list of references is available at the end of each chapter.

References

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An Accidental Career

Sydney M. Smee

Abbreviations

ACIR   Arizona Clinical Interview Rating scale
AMEE   Association of Medical Educators of Europe's
ASPE   Association of Standardized Patient Educators
ATLS   Advanced Trauma Life Support
IMSH   International Meeting on Simulation in Healthcare
OSCE   Objective Structured Clinical Examination
PI   Patient Instructors
SOBP   Standards of Best Practice
SP   Standardized/Simulated Patient
SPE   Standardized Patient Educator

It was 1973, I was 16 years old, and I was waiting to see a doctor. I kept going over and over what I would say, how to explain being pregnant and scared. When the doctor came in, I realized he was as anxious as I was; probably because his colleagues were watching us through the two-way mirror. I was simulating a role, but he was not. He would be receiving feedback about his performance. Suddenly I was not so nervous. I was doing the simulation as a replacement for my sister who had signed up to do it and then could not make it. The whole experience was a fascinating beginning to an accidental career.

Dr. Howard Barrows was introducing simulated patients into the health sciences curriculum at McMaster University, a new medical school close to where I lived. Gayle Gliva-McConvey was the SP trainer and she was the one who taught me the most about being a simulated patient or SP. Later she coached me in training others to be SPs. Most of my early work at McMaster involved simulating for small group teaching sessions. Over 12 years, I learned to simulate many patient problems and in doing so, I also learned a bit of medicine, acquired some medical terminology and found out quite a bit about history taking and physical examination techniques.

SPs create powerful learning moments. One time I was presenting with a total lack of lower limb sensation or movement as part of a presentation of multiple sclerosis. The occasion was a small group teaching workshop and I was assessed by a faculty volunteer. As he examined me, his sensation testing became rather aggressive. He kept pushing a pin deeper into my legs and feet, trying to elicit a response. Afterwards the facilitator led a group discussion providing him with feedback and discussing small group teaching techniques. When the session was over, I stood up. The volunteer went pale. He had come to believe that I was a real patient and that I had not felt anything because he could not elicit a pain response. My discomfort was worth it. He had forgotten it was a simulation and fully engaged in the learning process. On another occasion I was lying limp on a stretcher, supposedly only semi-conscious, during an Advanced Trauma Life Support (ATLS) course. The physician was preparing to log roll me away from him; which was an unsafe maneuver and would likely cause me to fall off the stretcher. I knew that if I stayed limp and fell, he would never make this mistake again. I wondered if I should do it. We were never expected to risk injury as an SP but our goal as SPs was to make each simulation as authentic as possible. I think I was willing to roll off that stretcher to maintain the simulation. Fortunately, I didn't have to. Part way into the maneuver the physician realized his mistake. I believe that figuring it out himself was an important learning moment and I was glad I had stayed in role long enough for it to happen.

My part-time job as an SP saw me through high school, supported me while I completed an undergraduate degree in political science and supplemented my income as I worked at other jobs. Then, for a short while I covered for Gayle during her maternity leave. During that time, Dr. Paula Stillman called the program, hoping to recruit Gayle Gliva-McConvey to join her at the University of Massachusetts. Gayle said no

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but suggested I apply. I did and shortly found myself living in Worcester and working as the coordinator for Dr. Stillman's Patient Instructor program.

I had never heard of patient instructors, although I had been a gynecological teaching associate for several years at McMaster. I quickly learned that medical students would meet one-on-one with a series of patient instructors to take a history or to complete a physical examination. The patient instructors used their own medical history and findings, and afterwards provided feedback to the student about their basic clinical skills. Patient instructors were required to complete a training program that introduced them to the basic physical exam techniques, basic history taking skills, and to score some very detailed checklists along with the Arizona Clinical Interview Rating scale (ACIR). What I had learned about clinical skills at McMaster had been by osmosis over 12 years of simulation. I quickly realized that I needed more formal knowledge of physical exam techniques and history taking skills. Thankfully, I was granted permission to take the practical component of the Year Two clinical skills course with the medical students. I was more self-taught when it came to coaching the Patient Instructors (PIs) with video-based exercises to promote reliable scoring. However, my years of being an SP for small group teaching sessions and my training work from a volunteer organization informed how I facilitated these training sessions.

I liked working with the PIs, but I found the detailed checklists rigid and constraining. This was a very different approach to what I knew from patient simulation and providing feedback on interactions from a patient-based perspective. Patient Instructors commonly used their own histories and provided feedback on specific skills. They did not need to learn a role, but they did benefit from learning how to present their cases without leading the medical students and learning to present their story as fresh, even after many repetitions.

As part of my work, I assisted with a large-scale research study that examined the value of using standardized patients to assess the clinical skills of residents across multiple New England training programs. The term patient instructor was replaced by the new term because the focus was on assessment of skills, not on providing feedback. Now SP meant something a bit different. My contribution earned me third authorship on the paper that reported on this study [1]. While I appreciated the acknowledgement, I did not understand its career value until much later. I didn't know I was on a career path.

After 2 years, I returned to Canada. I knew assessment work was important but did not see it as being my long-term focus. Professionally speaking, I went on a "walkabout". I did small contracts, I travelled, and then I became the coordinator for a hospice volunteer program. My experience with the patient instructor program was highly transferable. I

believed I was on a career path. However, to stay on that path and maybe become a program director at a larger institution, I needed more education. Back to school I went. I registered in a Master of Education program with a special interest in Adult Education.

While pursuing my degree and looking for a new position, I received a phone call. Would I be interested in a 3-year project to develop a high-stakes clinical skills assessment for the Medical Council of Canada? They were looking for a standardized patient (SP) trainer. I had never heard of the Medical Council of Canada and somehow forgot that assessment did not interest me that much. Next thing I knew, I was part of a small team tasked with developing and piloting a 20-station Objective Structured Clinical Examination (OSCE). Not only was I unfamiliar with the Medical Council of Canada, I was also uninformed about OSCEs.

I quickly learned that an OSCE relies on the standardized presentation of a series of patient problems to ensure that a cohort of trainees is assessed against the same set of cases or test items. The fairness and objectivity of an OSCE is further enhanced by pre-set scoring criteria, most often in the form of detailed checklists. OSCEs rely on standardized patients (SPs) to present patient problems realistically and they require SPs to align their presentation with detailed checklists to ensure score reliability. I learned over time that these two objectives do not always coexist comfortably. By the time I was introduced to the OSCE at the Medical Council of Canada, there was a growing body of evidence to support piloting an OSCE for national licensure [2–12]. The pilot had three sites, each running multiple tracks of 20 stations [13]. Multiple SPs were presenting the same role at each site and across sites. Sixty patient cases were needed for the pilot and the anticipated first administration.

When I started the OSCE design had been determined but the content, the patient cases, had yet to be developed. Scoring would be done by physicians who would observe and score the examinees within each station. We were building something new from the ground up. We were creating training materials for SPs, for site staff, and for the examiners. There were formatting and production issues to solve; scoring processes to create, and budgets to manage; the task list was endless, the learning curve was steep.

My roots were in patient simulation. Being the SP trainer and later the manager for a national high stakes OSCE meant a growing distance from direct SP-related work. With time, the two reports that became most important to me were the annual budget and the post-exam analysis. Dollars and data were my measures of success. A three-year contract had become a long-term position. My director and mentor, Dr. David Blackmore, pushed me to go back to school. The Medical Council of Canada would allow me to continue working and somehow, despite saying no, I ended up in a doctoral program in education with a focus on measurement and test theory.

During 8 years of working and studying I thought a lot about how an OSCE is scored and how that might be improved. Perhaps the biggest criticism of OSCEs (other than their cost) is that short stations and detailed checklists deconstruct what it means to be a clinician [14–17]. A physician does not ever just examine a knee, they examine a patient with a knee problem. OSCEs that rely on checklists arguably promote the wrong kind of learning. Many medical trainees engage in rote performance. At each OSCE station they ask and do as many things as they can from generic, memorized lists to gain as many marks as possible, as easily as possible. Candidates provided me with examples of this kind of rote performance when they spoke with me about their results. I was assured by one candidate that he had been empathetic during the OSCE; he had taken a course and he knew that empathy equaled touching the patient's arm three times. Other candidates argued that they "had done everything". Why had they done poorly? They meant they had done everything on their generic checklist. These are test-taking behaviors, not a true demonstration of clinical skills and an unintended negative consequence of scoring OSCEs with checklists.

Short stations and detailed checklists also deconstruct patient simulation, beginning with SP training. For example, SP trainers need to know how to standardize SP responses to open-ended questions. There are at least 3 different strategies to help SPs provide naturalistic responses to open-ended questions without giving away too much information and thereby forcing the medical trainee 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. However, the strategy that trainers' default to is training SPs to respond to an open-ended question with a question. So, when the SP is asked "What can you tell me about your foot pain? the SP responds with "What do you mean" or "Like what?" Candidates are forced to ask, "Is it sharp or dull?" "Does it throb?" "When did it start?" SPs answering a question with a question also promotes test-taking behaviors rather than rewarding good clinical performance.

Some trainers focus on unnecessary details in the pursuit of standardization. Once I was asked for the names of the patient's siblings. The siblings were peripheral to the patient's problem; standardizing the names did not matter. The trainer was striving to do a good job but was wasting time on details that were not critical to generating reliable scores.

On another occasion, I observed SPs being trained to present delirium. The SPs were to look around the room *about* four times during a 5-minute history. These SPs did look around at exactly 4 points during the practice, each time between questions from the physician. They gave a very mechanical presentation of a delirious, distracted patient. Then there are SPs who are accurate but sound scripted. "How would you rate your pain on a scale of 1 to 10 where 10 is the worst pain you can imagine?" "Seven." Instant reply. Not the more natural response of pausing slightly and then replying, "I don't know, it's bad, it's probably a seven."

These are examples of the erosion in authenticity that comes from standardizing SPs to a checklist. They are also examples of the impact, often negative, that OSCEs have had on SP trainers and SP educators. Standardization does matter and generating reliable scores when multiple SPs are presenting the same case requires clear case protocols. A key component of strong OSCE case writing is including fixed guidelines for SPs: "Only ask this question after 4 minutes" or "groan 3-4 times over 5 minutes" and "One answer only for each checklist item". The key to fair testing is that everyone sees the same cases so all the SPs doing the same case should be the "same", or at least as much the same as possible. However, SPs also need to align their responses to the questions and attitudes of each medical trainee, while still following the protocol for their case. When this nuance is lost, the best of what SPs bring to clinical assessment is undermined. When training approaches and the use of SPs are defined narrowly, as they are through an OSCE lens, then the full scope of SP-based educational activities is underdeveloped. SPs are wonderful teachers and powerful adjuncts to clinical faculty. They can provide direct, constructive feedback to learners about communication, history taking and basic physical exam skills in a variety of contexts. The introduction of simulated patients made OSCEs possible and OSCES have advanced the use of standardized patients in medical education. However, there is a tension that exists between patient simulation and high stakes assessment, between authenticity and reliability, that leading SP educators are always managing.

No More Accidents

No one grows up dreaming of becoming an SP educator. More often, individuals come to the field from a variety of backgrounds. They bring with them different areas of expertise that need to be adapted, expanded and integrated into a new field of practice. The requisite knowledge base encompasses everything from best practices in simulation to a grounding in educational and assessment principles. Expected skills range from teaching and coaching to human resource and program management skills. The Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP) [18] define the scope of required knowledge and skills and are an essential resource to aspiring SP educators. I remember the need for standards being raised by Gayle Gliva-McConvey at the 1993 *Set the Standard*

conference for SP educators (SPEs) in Calgary, Alberta, Canada. Twenty years later I was included in a working group of SP educators she convened in Vero Beach Florida. Gayle insisted that we could and would draft practice standards for SP educators. We did. ASPE leaders saw that work through to publication. The practice standards challenge all SP educators to look at their own practice and their own programs with clear eyes, to reflect on where to focus their professional development, and to advocate for SPs within their own institutions. The practice standards are a framework that represent the best of 5 decades of development in our field and are a guide to the SP educator community of practice as they meet the future.

The Standards of Best Practice [18] define the scope of SP educator practice, but they do not define a career path. The challenge for each individual is to create their own apprenticeship; an apprenticeship tailored to their individual context, an apprenticeship that respects their unique expertise and that addresses where they need to grow. Understanding the limitations of self-assessment [19] and learning about self-directed assessment [20] may be particularly empowering for SP educators who are creating their own path of professional development. Self-directed assessment seeking is a self-driven process of looking outward, not inward, and seeking feedback to guide and promote performance improvements. The informed self-assessment model proposed by Sargeant and her colleagues captures a complex process in five interactive components: (1) sources of information, (2) interpretation of information, (3) responses to information, (4) external and internal conditions that influence the first three steps, and (5) the tensions created by competing internal and external factors. First is information, that can come from external processes such as a course, or it can come from people, such as one's peers, co-workers, and supervisors. Information can also come from one's emotional and internal states. Next, information is interpreted through reflection, calibrating it against other feedback, and filtering it. We may accept or ignore information that does not fit with what we believe, or we may reject and then consider it, leading to further reflection and even acceptance of it. Information that confirms how we see ourselves is often simply accepted, only sometimes questioned. How we interpret and respond to information is influenced by the context in which we receive the information, our relationships with others, how we judge the credibility of the source, and our personal attributes, like our emotions and our curiosity. This whole process creates and is moderated by tensions; such as the wish to perform better versus the wish to appear informed and competent to others or the wish of the other person to give us genuine feedback versus their wish to simply validate positive attributes and avoid more uncomfortable conversations. Their tension is mirrored by our own wish for genuine feedback versus our fear of disconfirming and discomforting information.

Understanding the need for meaningful input from others and the conditions needed to elicit it, is an invaluable underpinning to having an intentional career. The scope of knowledge and skill required of even a new SP educator today means that accidental careers are less possible than it was during the early years. However, the resources available to SP educators are far greater. ASPE is an expanding community of practice that comes together at the annual ASPE meeting to share expertise and to promote good practice. ASPE has many experts within its membership who have developed critical resources; including the literature reviews and the research database of all things SP developed and made available by Karen Szauter; there is the textbook, *Simulated Patient Methodology: Theory, Evidence and Practice*, edited by Debra Nestel and Margaret Bearman [21]; there is Peggy Wallace's book *Coaching Standardized Patients for Use in the Assessment of Clinical Competence* [22], and there is *Objective Structured Clinical Examinations: 10 Steps to Planning and Implementing OSCEs and Other Standardized Patient Exercises* [23], edited by Sondra Zabar, Elizabeth Kachur, Adina Kalet and Kathleen Hanley. The International Meeting on Simulation in Healthcare (IMSH), the biennial Ottawa Conference on assessment of clinical competence, and the Association of Medical Educators of Europe's (AMEE) annual medical education conference all have much to offer SP educators, just as SP educators have much to offer at these meetings.

Looking Ahead

Discovering research in cognitive psychology that focused on clinical assessment jolted me out of a certain complacency about OSCE design and OSCE scoring [24–28] I was challenged to think about the cognitive load of the rating task, the impact of first impressions on raters, the narrative nature of social judgments, and how to align the language on scoring instruments with how raters think. Their research raises questions. "Can we shorten checklists and still have reliable scores?" "Will making the cognitive load less minimize biases like first impressions?" "Can we design checklists and rating scales that reflect how raters think rather than trying to train raters to think like test developers?" "Should there be two raters – scoring different aspects of the same performance?" If there were, there would be more data and that usually means more reliable scores.

In my own practice, a new blueprint at the Medical Council of Canada [29] challenged the test committee and the OSCE team to develop more authentic, complex cases that would assess more than the basic clinical skills of post-

graduate trainees. Success would require scoring strategies that did *not* reward the rote performance so often seen in OSCEs. Detailed checklists would not work in this context.

Checklists are useful tools, but they are best suited to scoring when thoroughness matters and for assessing beginner levels of ability or procedural tasks. They are useful when the time for rater training is limited or the time available for the marking task is limited. Rating scales are often promoted as an antidote to checklists. Rating scales are best suited to scoring behaviors, aspects of performance that are "more or less" done, and for capturing increasing levels of expertise or judgment. However more time is needed for rater training and for the rating task than is true for checklists. An early and often cited study [30] showed that rating scale scores were more reliable and discriminated better across levels of expertise, but the authors cautioned that the rating scales might have been too generic. Further, the raters in the study scored both checklists and rating scales which confounded the reliability analysis of the rating scale data. Did the checklists help standardize the raters before they completed the rating scale? Also, the checklists were designed to assess medical students, but the study compared the performance of different levels of post graduate trainees and experienced physicians. Was the issue the checklist format or the student-focused content of the checklists? More recently the checklist versus rating scale debate has given way to using some combination of checklist and rating scale items, an approach that is increasingly seen as best practice [31].

Without the constraint or framework of detailed checklists, the SPs and SP educators will need to use far more judgment to ensure that the kind of cases that Medical Council of Canada is developing are presented reliably. The SP training shortcuts of the past few years will be insufficient to support this kind of new content. SP trainers who are stuck in a paint-by-numbers approach will need to develop new insight and skills. However, these SP trainers are stuck because of high workloads, only knowing how to train for OSCE cases, or because they have not had enough training and support to know what is possible. I believe that achieving greater authenticity within an OSCE framework is possible if SP trainers have the necessary support and if they have the strong SP training skills and the good judgment that comes from an understanding of the underlying assessment principles. There are already many SP educators, working within their institutions, who are collaborating on SP-based innovations and promoting excellence in learning and assessment. I also believe the drive for more authentic and complex cases and the concomitant challenge to SP educators is not unique to the work at the Medical Council of Canada.

There are limits to what can reasonably be simulated in an OSCE, especially in terms of physical signs and symptoms. Even in educational exercises there are limitations. Simulated patients are not actual patients. That is a constraint and a strength. Trying to figure out more and fancier ways to create simulations in the OSCE or ways to overcome the physical limitations of SPs does not seem like the best strategy to me. Finding better ways to train and coach SPs on what they can do best seems far more important. However, some of what SPs do best are also the things that are hardest to standardize. Emotional roles are one example; more interactive roles are another. Basic history-taking and physical exam roles are driven by the trainees, so these roles are primarily reactive and are more easily simulated, more easily scored.

Interactions driven by the SP require more judgment from the SP, there is room for more variance. Interactive roles include patients questioning how their problem is being managed, patients who present ethical challenges, and SPs who simulate clinical colleagues demanding some form of response from the trainee are a small sample of a wide range of complex roles that will require a new understanding of 'standardized'. Some of these more complex presentations are being well explored within SP programs. Learning from these educational initiatives should and can inform what is possible in assessment, even within the restrictions of high stakes OSCEs.

Final Reflection

An accidental career was more possible 30 and 40 years ago. SPs in medical education were an innovation, OSCEs were new; everyone was learning. In many ways my accidental career evolved as the field itself evolved. I was fortunate to work with leaders in the field and to be a part of the Medical Council of Canada for over 25 years. I benefited tremendously from rich, if unintended, learning opportunities. First were my years as a simulated patient in a problem-based curriculum, where I learned some medicine and I learned about teaching. Later, years of working with test committees and clinical case writers taught me even more about medicine and a lot about assessment. I was blessed with mentors who fostered my learning and who gave me increasingly responsible roles that allowed me to grow, to experiment, to lead. Intentional learning, my post-graduate education, deepened my understanding of critical knowledge and broadened my perspective but came late in the process.

Today, there is a maturing community of practice, a large body of research and reference materials. I do not believe that an accidental career is as possible. One may still enter the field "accidentally" since many SP educators still come from other fields. However, I think there is an onus on today's SP educator to be intentional in their professional development; to understand and assimilate what has already been learned and accomplished so they can build from it, not recreate it.

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How a Revolution Took Hold – The Standardized Patient Methodology

3

Devra Cohen-Tigor and Gayle Gliva-McConvey

Abbreviations

AAMC	Association of American Medical Colleges
ACIR	Arizona Clinical Interview Rating scale
AHA	American Hospital Association
AMA	American Medical Association
AMEE	Association of Medical Education Europe
ASPE	Association of Standardized Patient Educators
CACMS	Committee on Accreditation of Canadian Medical Schools
CAME	Canadian Association of Medical Education
CHSE	Certified Healthcare Simulation Educator
CPX	Clinical Practice Examination
DTCA	Direct to Consumer Advertising
ECFMG	Education Commission of Foreign Medical Graduates
FDA	Federal Drug Administration
GPEP	General Professional Education of the Physician and College Preparation for Medicine
INACSL	International Nursing Association for Clinical Simulation and Learning
LCME	Liaison Committee on Medical Education
MCC	Medical Council of Canada
MCQ	multiple choice question
NBME	National Board of Medical Examiners
OSCE	Objective Structured Clinical Examination
SIU	Southern Illinois University School of Medicine
SPE	Standardized Patient Educators
SSH	Society for Simulation in Healthcare
USC	University of Southern California
USMLE	United States Medical Licensing Examination

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Introduction

The introduction of simulation, the paradigm that shifted medical education from lecture-based to practice-based teaching and assessment of clinical skills, revolutionized the way in which medicine is taught. Human simulation allowed learners to practice on live individuals in a safe environment, to apply knowledge and skills in real time, have the faculty directly observe interactions with "patients," and get direct individualized feedback on the performance of clinical skills. As a byproduct, simulation methodology allowed faculty to effectively develop gold standards for practice for each year of training and establish performance criteria for graduation. Many clinical teaching faculty look back 20 years and say, "how could that have NOT been a part of medical education?"

> … *Very much more time must be hereafter given to those practical portions of the examinations which afford the only true test of man's fitness to enter the profession …*
> *The day of the theoretical examinations is over.* (Sir William Osler, MD 1885) [1]

Fundamental Change to American Medical Schools During the 20th Century

A question arises; should a music student only be allowed to touch a bow or put their hands on the keys of their instrument *after* they finish conservatory? Should music learners study theory yet not have their instructor observe and coach them on their performance? It seems counter-intuitive. So too does not putting one's hands on a patient until you have almost completed medical school, or rarely if ever being observed working with patients and receiving constructive feedback.

Traditionally, medicine was taught in large lecture halls and heavily promoted the foundational sciences; students had little or no patient experience. There was little clinical instruction in undergraduate medical education. Rote memorization of copious amounts of information was regurgitated during non-standardized oral examinations; analogous to the music student who doesn't touch an instrument until after they finish conservatory. However, unlike hitting a wrong note, physician error from lack of practice can have deadly consequences. Medicine like music, requires keen observation as well as continuous practice and constructive feedback for mastery of skills and the nuances of the "art".

Movers and shakers in history are often not afraid to try something new which challenges the status quo, and true visionaries have the ability to imagine a different future. Abraham Flexner, a former schoolteacher and expert on educational practices and Sir William Osler, a notable physician and dean of the Johns Hopkins Medical School, are frequently cited as such visionaries [2].

Medical practice in the early 1900s had little oversight. "Physicians were primarily "learned gentlemen" in command of few effective practical skills" Medical education was informal, based on apprenticeships with no perscribed assessment of competencies or certifications. In most medical schools, there was a lack of uniformity to patient exposure and students could graduate without any hospital experience [3]. Standards in teaching were inconsistent, mainly due to the variability and lack of thoroughness of the faculty's own training and teaching style. The Flexner report of 1910 dramatically transformed medical education across the United States. In collaboration with the American Medical Association (AMA) with support from the Carnegie Foundation whose objective was to restructure American medical education, Abraham Flexner a *non* medical educator, visited hundreds of medical institutions accross the US, Canada and Europe. His seminal report was influential in ending for – profit medical schools, the closure of a 3rd of the schools throughout the US and in setting standards and scholastic rigor in the establishment of a science-based curricular model. This however was almost to the exclusion of the patient as an active entity. This science-based model preticated on the German medical model, promoted "excellence in science but was not balanced by a comparable excellence in clinical caring." [4] Flexner's science and rigor in medicine overshadowed the art of medicine: patient-centered care using humanistic approaches.

One of Flexner's greatest supporters in making this seminal change in medical education was also one of his staunchest critics. Sir William Osler understood the need to develop scientific knowledge, but his concern for the *welfare* of patients also influenced his teaching. His focus on a more humanistic approach in education included the need for direct observation of students and clinical practice with patients. At the end of the nineteenth century, Osler introduced the concept of grand rounds and restructured the curriculum at Johns Hopkins to include clinical observations in the amphitheater and patient experiences.

These two visionaries helped to overhaul medical education; Flexner by focusing on scientific rigor and setting standards, and Osler with and emphasis on student observation and clinical practice. Thomas P. Duffy a prominant Yale physician and humanist, reflecting back on 100 years after the Flexner report, observed, "We have learned that scientific medicine must travel linked to a professional ethos of caring that has been in place in our oaths and aspirations" [4].

Modern Influences on North American Medical Education

It takes about 30 years for a major change in medical education to occur. (Howard Barrows, 1975)

Fast forward to the early 1980s: the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC) promoted the improvement of public health and medical education. These institutions assisted medical schools to adopt curricula to support earlier exposure to patient care and developing students' clinical and communication skills. However, in the 1980's and 90's communication skills were considered part of the "art of medicine" or "soft skills," something that was rarely taught in a formal way, and almost never assessed.

During the last decade, there was increasing evidence that effective doctor–patient communication produced "better health outcomes, better compliance and higher satisfaction of both doctor and patient" [5]. Much more attention was given to consensus efforts and reports such as one from the Toronto Consensus meeting in the early 1990s which stated, "sufficient data have now accumulated to prove that problems in doctor-patient communication are extremely common and adversely affect patient management" [6]. They concluded there was a "clear and urgent need for teaching of these clinical skills to be incorporated into medical school curriculums and continued into postgraduate training and courses in continuing medical education." (p 1387) In 1995, the American Academy on Communication in Healthcare, whose mission is to improve communication and relationships between physicians and patients through educational initiatives, published its authoritative reference text, which covered clinical care, education, and research as an exposition of communication training for internal and family medicine. Due to these efforts, and more, communication training became part of the core principles when developing new medical curricula.

As medical education continued evolving, several other important societal initiatives occurred in North America. The American Hospital Association (AHA) revised the 1973 Patient Bill of Rights in 1992, outlining 12 provisions patients and their families should be provided in order to

receive effective care in medical centers. These provisions focused on the interactions between health care professionals and patients ensuring respect, autonomy in decision-making, non-discrimination and sensitivity to gender, race, and religion [7]. Communication and interpersonal skills were at the core of these stipulations.

Another influence was the introduction of Direct to Consumer Patient Advertising (DTPCA), started in the US in the 1980's. By 2004, the Federal Drug Administration (FDA) relaxed regulations even more, allowing the sales pitch for pharmaceutical products direct to consumers with only major risks disclosed. Whether one agrees or not with DTCPA, some health care providers believed it fostered doctor-patient dialogue and adherence [8].

Technology, the internet, and television began to influence patient expectations and improve the ability to acquire medical knowledge impacting ones own healthcare. Patients were able to come to the physician's office armed with information. No longer were they content to be a silent partner, but rather demanded a say in decision-making. The need to improve the communication and interpersonal skills to address the growing demand for information by patients became more evident.

In 1999, the Institute of Medicine released the report To Err Is Human: Building a Safer Health System, which exposed the state of medical errors, resulting in 44,000–98,000 unnecessary deaths in the US. The report outlined an agenda of actionable steps hospitals should implement mostly related to systems and market-based restrictions in need of reform. The report opened the public's eyes to the need for improved or alternative ways of educating healthcare providers [9].

The Introduction of Human Simulation to Medical Education

Two names are prominent when talking about the development of SP methodology in North America; Howard Barrows MD, a neurologist, the "father of Simulated Patients" and Paula Stillman, MD, a pediatrician, who is credited for expanding the role of the SP.

It is a common misconception that SPs started as an instructional format and progressed to assessment. In fact, it was just the opposite. Barrows stated: "the impetus for this technique was produced by our need for better evaluation of the neurological performance of our clinical clerks who spent three weeks on the neurological services in recurring groups of six or seven students during their junior year" [9]. He wanted a fair, rigorous and reliable tool to observe and assess his neurology learners. He wanted a patient case in which he knew all the details that could be consistently reproduced for all his learners. Additionally, he needed an objective way to observe and record the learner's performance.

Barrows attributes the creation of the SP-based technique to three factors coming together. The first was the impact of his mentor, Dr. David Seegal, and his dedication as a teacher. Seegal spent unheard of amounts of time observing and assessing medical students performing basic clinical skills with a patient. Seegal noted it was absurd that a medical student could graduate without basic skills being formally evaluated. The second factor was Sam, who contributed as a neurological patient who was recruited for the neurology board examination for several years. Over the course of those years, he became extremely knowledgeable about his physical findings. After one full day of examinations, Sam reported one candidate specifically had been rough, but he assured the examiners that "*I got even with him: I changed my sensory loss and put my Babinski on the other side.*" [10]. The final factor in Barrows' conception of standardized patients was a woman who modeled for art students, Rose McWilliams. Barrows was filming clips of the neurological examination for his students when he met Rose, who enthusiastically posed as the model for the filming. She became very knowledgeable about the examination techniques and comfortable with the exam. Remembering Sam, Barrows trained Rose in the first simulated neurological case, multiple sclerosis.

During his time at the University of Southern California (USC), Barrows worked with another pioneer in medical education, Stephen Abrahamson, PhD, ScD. Abrahamson was developing one of the first medical education departments in the nation while Barrows was on faculty in the Department of Neurology. Both Abrahamson and Barrows had an innate interest in innovative teaching methods. While Barrows promoted the use of simulating a patient with a human being, Abrahamson saw the potential to use computer generated manikins to help medical school educators improve education and outcomes. His team helped develop Sim One, the first healthcare manikin. His idea that an anesthesia student could safely practise and learn from a computer programed manikin rather than a live patient was yet another milestone in the engaged practise of skill aquisition without the potential of causing irrevocable harm [11].

With the support of Abrahamson, Barrows nurtured the concept of "programmed patients." However, at USC, Barrows met with such resistance from neurologists and medical educators, he left USC to a more supportive academic climate in Hamilton, Ontario, Canada. In 1969, he became a founding faculty member of a new medical school at McMaster University Faculty of Health Sciences. As a new medical school, McMaster University was the ideal setting for Barrows and his innovative and revolutionary ideas. Barrows pioneered a student-centered pedagogy called problem-based learning. Barrows saw the "simulated patient" teaching and research as integral to this new educational strategy and for life-long learning through the process of inquiry and constructivist learning.

Influenced by Barrows, Dr. Robert Kretzschmar, an Obstetrics and Gynecologist at the University of Iowa,

developed the first gynecological teaching associate in 1968. He recruited women to teach the pelvic examination using their own bodies to instruct students on breast and pelvic examinations [12].

In the early 1970's, Paula Stillman, M.D., was a pediatric clerkship director at the University of Arizona. She wanted a method that would allow her to teach and assess behaviors and techniques in both the content and the process of student medical interviews and one that would be conducive to providing feedback to the learners. Stillman recruited mothers to simulate stories for her learners. Using a checklist, her "simulated mothers" recorded learners' interviewing skills and provided feedback on communication skills. Stillman was also tasked with finding a method for teaching accurate physical examination skills in the physical diagnosis course for her second year learners. Similar to Kretzschmar, she developed a comprehensive physical exam checklist and trained her first "patient instructors" to teach and assess a systematic physical exam using their own bodies [13].

Kretzschmar and Stillman's ideas were indeed a huge revolutionary step: the use of lay people to help teach medical education. Not only were they using their bodies and voices to teach but they were now tasked with completing evaluation forms and providing immediate verbal feedback on clinical and communication skills. Most medical educators and physicians were skeptical this would prove to be beneficial, effective method for teaching and assessment. Little did they know the methodology would become a staple of medical education around the world.

Barrows and Stillman viewed medical education from two different perspectives. Barrows wanted to reform the traditional medical curriculum and looked for alternatives. He had an interest in abstract ideas about education and topics such as the clinical reasoning process, integrated cognitive learning, and practice-based experiences. He originally trained SPs from real patient stories and supported a patient-centered and holistic feedback structure. Stillman, on the other hand, wanted to improve traditional educational methods. She focused on teaching and assessment based on concrete processes, observable behaviors related to basic clinical skills, and learner competency. Stillman's cases were composed of a collection of real patient stories, sometimes including some details from the simulated mothers' own lives. She designed the first behaviorally anchored communication checklist as a basis for feedback training, known as the Arizona Clinical Interview Rating scale (ACIR) [14].

While Barrows and Stillman were introducing the SP in the United States, in 1975 Ronald Harden, M.D., a Scottish physician and educator, pioneered the Objective Structured Clinical Examination (OSCE). Harden designed the OSCE as a timed multiple short-station assessment (between 5–10 minutes) that tested a learner's ability to perform a single skill on a real patient (e.g. examine a shoulder), observed and scored by a faculty member using a checklist. Harden's colleague, Ian Hart, M.D., was responsible for integrating SPs and the OSCE into specialty examinations at the Royal College of Canada [15].

In 1981, Barrows left McMaster and became the associate dean for education at Southern Illinois University School of Medicine (SIU). Continuing his interest in curriculum reform, in June 1984, Barrows and SIU faculty, in collaboration with Tom Meikle at the Josiah Macy Jr. Foundation, held a conference "How to Begin Reforming the Medical Curriculum". This invitational conference allowed Barrows to showcase the value and flexibility of SP methodology with demonstrations of the SPs he had trained. At the end of the conference, recommendations were developed including the requirement of a performance-based examination for graduation. Reframing Harden's OSCE format, Barrows expanded the complexity and scope of the assessment to the learner's ability to demonstrate the complete range of clinical skills, depending on the presenting problem. Designed to assess the clinical performance of a learner in an actual patient encounter, a multi-station assessment with longer (15–20 minutes) stations was designed to assess taking a history, conducting a physical examination, and communication with the patient (providing patient education, discussing a management plan etc.). Post encounter exercises were paired with each encounter to further assess clinical reasoning and communication with members of the health care team. To distinguish this approach from the OSCE, he named it the Clinical Practice Examination (CPX) [16].

The Josiah Macy Jr. Foundation continued to support a number of demonstration projects, providing opportunities for Barrows to convince deans and associate deans of the benefits of working with SPs. One demonstration took place in the Professional Development Laboratory at SIU, a simulated clinic dedicated to teaching and assessment. His fully equipped simulated clinic became the model for other schools as SP programs grew and the need for clinic space dedicated to teaching and assessment became a reality. SIU introduced its first comprehensive multi-station examination using standardized patients to assess clinical skills in 1986.

Continuing its commitment to curriculum reform and SP methodology, the Josiah Macy Jr. Foundation in 1990 (based in New York City) awarded The Morchand Center for Clinical Competence housed at Mount Sinai School of Medicine a $250,000, 3 year grant for the establishment of a CPX exam. This successful collaboration, coupled with Dr. Meikle's enthusiastic endorsement contributed to the Foundation enbarking on the support of six more consortia across the United States with each of them subsequently developing thier own CPX. These consortia, one in each region, allowed schools to create and share materials such as

cases, assessment rubrics, collaborate on research and establish one simulation center for multiple institutions.

By 1996 The Josiah Macy Jr. Foundation, under the continued enthusiastic leadership of Tom Meikle, awarded $4.6 million in grants to develop and implement a SP-based Clinical Practice Examination (CPX) [17]. The Macy Foundation consortia had grown to include twenty-three medical schools and, in parallel, two independent consortia were formed: Stillman had started the New England Consortium and Reed Williams, PhD, a psychometrician and medical educator who had worked with Barrows at SIU, started the Chicago Clinical skills Consortium. The schools involved in these consortia represented almost one-third of the US medical schools focusing on developing a performance-based clinical assessment of their learners [16].

At SIU, Richard Reznick M.D. was working on his master's in education when he met Barrows. Reznick's research interests focused on assessment and technical skill acquisition. He became interested in SPs and OSCEs for national certification. Returning to Canada in 1993, he was instrumental in developing a performance-based examination for the Medical Council of Canada (MCC). The MCC became the first organization to implement a national standardized patient-based examination as a required part of licensure [11].

Internationally, in the early 1980s, the introduction to and curriculum integration of SP methodology is credited to JJ Rethans M.D and Cees van der Vleuten PhD (Netherlands), David Newbie PhD (Australia) and Ron Harden and Ian Hart (UK) and documented in the medical education literature. This growth has continued globally in the expodential number of publications written over the years and discussed in detail in chapters 14 and 15 [18].

The AAMC and AMA demonstrated their interest in establishing the use of SP methodology in medical education through several events; the recommendations from the General Professional Education of the Physician and College Preparation for Medicine (GPEP) report, a directive to "develop a system of assessment which assures that learners have acquired and can demonstrate on direct observation the core clinical skills and behaviors needed in subsequent medical training" [19]. The AAMC sponsored the 1992 Consensus Conference on the Use of SPs in the Teaching and Evaluation of Clinical Skills. A total of five major reports focusing on the quality of undergraduate medical education, which were issued in the 1980s and the early 1990s – three by the AAMC, one by the AMA, and one by the Macy Foundation – commented on the need to improve the clinical skills education of medical students.

In 1989 and repeated in 1993, AAMC sent a survey on the "use of SPs" to 142 curriculum deans in the US and Canada. Deans from 138 schools reported an increase in the application of the SP methodology with SPs for teaching and evaluation from 94 schools in 1989 to 111 schools in 1993 with 39 working with SPs in a comprehensive examination to assess clinical skills before graduation [20].

Over the years, Barrows and Stillman's approaches begin to intersect. Stillman was recruited by the ECFMG to set up four pilot sites to develop stations and assessment criteria. Two of these successful pilot sites were directed by several of Barrows' colleagues; Drs. John Shatzer at Johns Hopkins and Jerry Colliver with Reed Williams at SIU. In 1994 under the leadership of Alton Sutnick, M.D., the Education Commission of Foreign Medical Graduates (ECFMG) authorized the Clinical Skills Assessment as part of its certification of international medical graduates with the help of Miriam ben Friedman, PhD, whose research advanced the field. Barrows' influence extended to Daniel Klass, MD, whose work at the National Board of Medical Examiners (NBME) with the support of L. Thompson Bowles, MD, the president of the NBME, laid the groundwork for the use of SP-based assessments for the United States Medical Licensing Examination (USMLE) [11].

Several influential institutions were responsible for fueling the use of SP methodology at schools of medicine. In Canada and the US, the MCC, the NBME and the ECFMG identified the need to develop an assessment of competence other than multiple-choice question-based examinations to protect the health of the public through state-of-the-art evaluation methods. This assessment would focus on the demonstration of core abilities: the clinical skills of history-taking and physical examination, medical knowledge, and communication skills. While centered on assessment of physicians, the need for better methods of teaching and assessment impacted the spectrum of health professionals along the continuum of education, training and practice and included research in evaluation as well as development of assessment instruments. The introduction of SP-based clinical skills assessment for licensure found medical schools pressured by the students to prepare them for the examination; licensure has a profound impact on learning and curricula. Coupled with student pressure was schools own desire to have their classes excel and match at their medical institutions of choice. As a result, more dedicated simulation centers were built at schools of medicine across North America [20].

We would be remiss to omit the early contributions of psychometricians during the development of SP methodology: Geoffrey Norman, PhD, David B. Swanson, PhD, Jerry Colliver, PhD, Viet Vu, Phd, Jack Boulet, PhD, and Reed Williams, PhD. to name just a few. There has become a long list of medical eduation researchers who have redefined the methods of evaluation when it comes to the reliable and valid evaluation of the *practice* of medicine.

Through extensive research, these psychometricians reported on numerous aspects and applications of SP methodology. Their causiously optimistic conclusions on the evidence of the large and systematic knowledge base on SPs fueled more funding for large scale reliability and validity studies which assisted in the acceptance by medical educators and the licensing bodies. The overall body of work suggested, "medi-

cal educators should realize the benefits of the high-fidelity standardized approach provided by standardized-patient examination," and noted "far less is known about the measurement properties of conventional procedures for clinical assessment in medical school courses and clerkships" [21].

In Barrows' second book, *Simulated (Standardized) Patients and Other Simulations,* he noted SP methodology was found to be valuable for teaching and assessment in many fields and stated, "Therefore a more generic term 'human simulations' may be more appropriate". He also credited Norman with the name change from *Simulated* Patient to *Standardized Patient*. Norman suggested the name change to promote the advantages of working with a patient case that was controlled and standardized versus the variability of working with actual patients in teaching and assessment [22].

The field of human simulation continues to mature, with the creation of standards of best practice by the International Nursing Association for Clinical Simulation and Learning (INACSL) and Association of Standardized Patient Educators (ASPE) [23] as well as certification processes focusing on ensuring pedagogical skills in the design, development and delivery of human simulation activities (Society for Simulation in Healthcare (SSH) – Certified Healthcare Simulation Educator) (CHSE).

ASPE – A Brief History of SP Educators

Throughout the 1990's, a small group of Standardized Patient Educators (SPE) met at educational meetings such as the American Association of Medical Colleges (AAMC), the Canadian Association of Medical Education (CAME), Ottawa Conference, Association of Medical Education Europe (AMEE).

During 1991–1993, there were several developmental and sentinel meetings of SP Trainers for the purpose of establishing a professional network. The first was an invitational working group of SPEs who met in Niagara-on-the-Lake in Ontario, Canada to discuss ways of encouraging collaboration, sharing resources, and professional development for SPEs. The second meeting of the SP Trainers Group was again an invitational conference: "Standardized Patient Trainers Standard Setting Conference", in Philadelphia, PA. The third meeting, in 1993, formalized SPEs' interest in attending conferences specific SP methodology at the Calgary Conference: "Set the Standard."

These early invitational meetings and conferences were successful in assessing the needs of the SPEs and interest in professional development. The successful attendance of SPEs to these pre-ASPE conferences was encouraging and supported the need for a formal organization. In 2001, a legal process to formalize the Association of Standardized Patient Educators (ASPE) was completed, and the first board of directors established, and initial meeting held in Little Rock,

Table 3.1 Summary of Kuhn's steps in a revolution

1. "Familiar objects are seen in a different light and are joined by unfamiliar ones."
2. "Scientists *see the world* of their research-engagement differently."
3. "Scientists see new things when looking at old objects."
4. "In a sense, after a revolution, scientists are responding to a different world."

Arkansas. The foundational work since 1991 contributed to the successful introduction of ASPE in 2002. In 2003, ASPE's 2nd Annual Conference was held in Virginia Beach, VA. The theme was, "Keys to Quality." This was the first stand-alone, 3-day conference. All of the past ASPE conferences are listed on the ASPE website (aspeducators.org) [11].

Revolution

A paradigm shift is a fundamental change in the basic concepts and experimental practices of a scientific discipline. (Thomas Kuhn)

The introduction of human simulation into medical education was a paradigm shift. Simulation was a departure from the traditional, known, and comfortable. Kuhn, an American philosopher of science introduced in 1962 the term "paradigm shift." His depiction of a paradigm shift takes place when an anomaly destabilizes traditional scientific practices causing a shift in shared beliefs and assumptions. At the beginning, simulation could be viewed as this anomaly in medical education. Kuhn noted how paradigm shifts and revolutions changed scientific beliefs and conceptions and ultimately world views. Kuhn stated, "during scientific revolutions, scientists see new and different things when looking with familiar instruments in places they have looked before" [24]. Kuhn identifies several steps in the evolutionary process for change to be considered a revolution (Table 3.1). These align with the process that took place in medical education with the introduction of human and computer-based simulation.

The reexamination of fundamental concepts and prior facts are demonstrated in the following "shifts" in medical education through the introduction of simulation:

Shift #1 – Mistakes are tolerated and can provide teachable moments In a profession where the guiding principle is, "First do no harm," it is not surprising that the norm is intolerance of error, mainly because of the devastating consequences of medical error. Yet "intolerance" is an austere environment in which to learn. Mistakes can provide great opportunity for growth, if the opportunity is used to extract a "teachable moment." Simulation allows for planned teachable moments in a safe environment, where learners can make mistakes, but cannot harm "the patient" [25, 26].

Shift #2 – Constructive feedback is consistently and reliably provided to learners Human simulation allows for the immediate delivery of written or verbal feedback to an individual learner or in a small group setting. Trained SPs and experienced faculty have demonstrated the ability to provide constructive, reliable and valid feedback and is one of the most effective means of solidifying skill acquisition [27]. Peers are expected to practice constructive feedback as well. This is now the norm throughout healthcare curricula throughout the US, Canada, Eurpope and a growing number of other countries. It can be difficult for learners to watch themselves and classmates during video reviews of their SP interactions. However, a process of facilitated reflection and skilled facilitated feedback with small groups allows for learners to grasp "best practices" from each other, observing comparable ways to improve performance [28]. Instead of faculty demonstrating how to do it "right," they observe peer performance, learning from others' errors as well as from examples of effectiveness, recognizing one does not always need years of practice to execute effective compassionate care.

Shift #3 – Self-reflection is a meaningful practice Another benefit of simulation has been emphasis on self-reflection as part of acquiring life-long learning skills. Taking the time to self-reflect can lead to more effective skills and outcomes by evaluating one's own thinking, process, and behaviors towards others. Asking important questions about personal experiences, motivations, beliefs, and intentions gives insight to understanding emotional responses, biases, and areas of strengths. Reflection has been found to have a positive impact on empathy, learning in complex situations, and par-

ticipation in the learning process [29]. Reflection builds self-awareness, one of the key elements of Emotional Intelligence. Developing these skills early in training benefits learners when working with patients, in teams on the wards or in the Operating Room [30]. In simulation, self-reflection is an important component of the debriefing, main element of skill aquisition. There is an increasing interest and large body of work examining the role and effectiveness of debriefing in the learning process [31].

Shift #4 – Communication and interpersonal skills can be taught and evaluated Human simulation and research have supported the teaching and evaluation of communication and interpersonal skills. Just like teaching someone how to take a blood pressure, one can also similarly break down active listening, and empathy into observable behaviors then effective feedback for improvement can be provided. Motivation for asking questions of patients is also tied directly to the ease and "genuineness" of the interaction. Having learners identify the appropriate "intention" by attributing it to the desired *need* for information from the patient such as when taking a sexual history, takes the focus off oneself and directs it onto their patient [30].

Shift #5 – Medical Education can be taught in an interactive, dynamic format Reexamination of traditional, passive approaches to teaching has encouraged medical education to move towards participatory and experiential learning [31, 32]. Illustrated by the Learning Pyramid in Fig. 3.1, different styles of teaching or ways of obtaining information produce varying results. The learning pyramid

Fig. 3.1 The learning pyramid
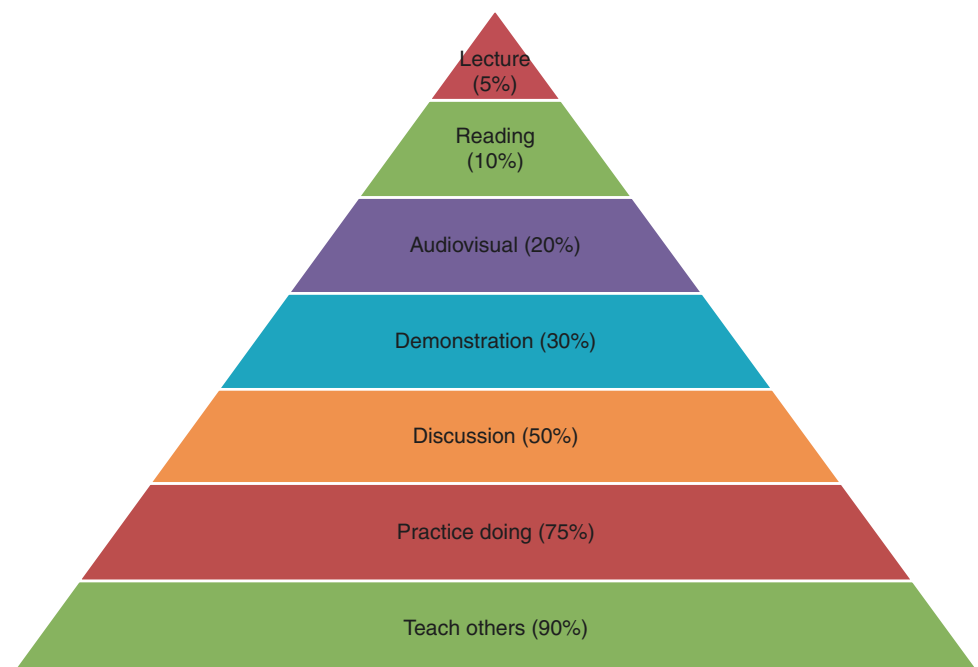
shows the least and most optimal methods of retaining information using passive teaching methods (lectures, reading, audiovisual, demonstration) versus participatory teaching methods (discussion, practice, teaching). Although these exact percentages have been refuted, it is the bigger picture which is important - when we are engaged with our mind and body in a meaningful, challenging process via an interaction, that learning experience will be more readily retained [33].

Human simulation incorporates elements from theater, video technology, psychology, sociology, anthropology and virtual reality; and by doing so has created the opportunity for tremendous innovation in experiential teaching [34].

Shift #6 – Graduation from medical school and obtaining licensure in the US and Canadian require multiple methods of assessment For decades, medical schools used oral or multiple choice question-based assessments (MCQs) to evaluate clinical competencies including knowledge and critical thinking despite research questioning face validity (MCQs), poor content validity and inconsistency, subjectiveness, and the potential for bias with variations in examiner differences (oral examinations) [35].

Since a single method of assessment cannot capture the multiple layers and aspects of clinical competency, multiple assessment methods are required. The NBME, for example, expanded the format of single question MCQs to include sequential MCQs, the use of vignettes to assess critical thinking skills, computer case-based assessment to assess patient management, and introduced standardized patients in their licensure assessments [36, 37]. The introduction of SP-based assessments for licensure in North American, unlike oral examinations, allowed for the control of case content, case portrayal and immediate, standardized direct observed assessment. Because the details of the case are known, evaluation rubrics can be controlled, monitored, and adjusted as needed [38].

Furthermore, the Liaison Committee on Medical Education (LCME) is the U.S. Department of Education recognized accrediting body for programs leading to the MD degree in the United States also promotes the use of a variety of assessment methods. It also accredits MD programs in Canada, in cooperation with the Committee on Accreditation of Canadian Medical Schools (CACMS). The LCME is jointly sponsored by the AAMC and the AMA and publishes the standards MD programs must follow in order to attain accreditation, The standards state MD programs must demonstrate, "The systematic use of a variety of methods to collect, analyze, and use information to determine whether a medical student has acquired the competencies (e.g., knowledge, skills, behaviors, and attitudes) that the profession and the public expect of a physician. (Element 1.4)" [39].

Conclusion

The word revolution is derived from the Latin word *revolutio* which means "a turn-around." Modern use of the word equates to violent change such as a revolt or overthrow. Human simulation certainly did not overthrow any institutional leadership or produce demonstrations or armed revolts on medical school campuses. However, through ingenuity, steady practice, incremental changes, and copious research, SP methodology managed to greatly shift the clinical skills curricula of every medical school in North America and numerous others around the globe. It has been a continuous movement over the last three decades, leading to changes in the way we teach, evaluate, and ultimately practice the art of medicine.

In the end, as Thomas Kuhn said "The answers you get depend upon the questions you ask."

Those of us in the simulation field understand the "right" question at an opportune moment, can make all the difference and lead to positive change. The next enterprise in this journey of human simulation in medicine will depend upon the ingenuity, creativity, boldness, timeliness and applicability to the communities in which we serve [40].

See Appendix 3.1 for a timeline of milestones in the history of the SP methodology and standardized patient educator.

Appendix 3.1 Timeline and Intersections

Milestones in the History of the SP Methodology and the Standardized Patient Educator

1960s

1963   First trained patient – called *Programmed Patient* at USC (H.S. Barrows)

1964   First publication in the Journal of Medical Education: "The Programmed Patient: A technique for Appraising Student Performance in Clinical Neurology" (H.S. Barrows)

1970s

1971   First book on SPs published: *Simulated Patients (Programmed Patients* by H.S. Barrows

Name change from "Programmed Patient" to "Simulated Patient"

1972   Expansion of the GTA role to include teaching communication skills related to the pelvic examination. (Kretzschmar)

1973   "Patient Instructors" introduced. *Teaching Physical Examination Techniques* by P. Stillman published

1975   First article on OSCEs published: "Assessment of clinical competence using objective structured examination." by R. Harden

1980s

Exact date unknown: Name change from "Simulated Patient" to "Standardized Patient" (G. Norman)

1984   Macy Foundation Invitational conference on curriculum reform. SPs were introduced to medical schools throughout the country as a valuable tool for individual student assessment and a means for curricular change in medical education. (H.S. Barrows, Josiah Macy Jr. Foundation)

First multi-station demonstration with SP-based stations (H.S. Barrows)

1987   Second Book on SPs published: *Simulated (Standardized) Patients and Other Human Simulations*" by H.S. Barrows

1989   AAMC Survey of 142 curriculum deans in the US and Canada was conducted. 94 of the 136 deans responded indicated that working with SPs were integrated in various ways including teaching the breast, pelvic and male GU and teaching and assessing history taking and the physical examination, patient education and counseling and interviewing skills. Nearly a third of the schools (39) had a central office that coordinates the school's SP Program

ECFMG vice president Alton Sutnick established a working group to develop a SP-based performance assessment: Howard Barrows, Paula Stillman, Ian Hart

SPEs met randomly at educational meetings such as the American Association of Medical Colleges (AAMC), the Canadian Association of Medical Education (CAME), Ottawa Conference, Association of Medical Education Europe (AMEE)

1990s

1991   A survey was sent out to medical schools and SPEs in Canada and the United States exploring interest in a professional development forum. The response rate was overwhelmingly positive.

Invitational meeting held in Toronto Ontario Canada for SP Trainers. A working group of SP trainers met to discuss ways of encouraging resource and professional development for SP trainers. Five international trainers attended.

At the annual American Association of Medical Colleges (AAMC) conference, an informal SP Trainers Caucus was held. Fourteen SPEs attended.

AAMC tasked Dr. Paula Stillman to assess interest in a Special Interest Group (SIG) on Standardized Patients. Twenty-one individuals were invited to present their work on SPs.

Invitational Symposium held at Niagara-on-the-Lake, Ontario Canada: "SP Trainers – A First meeting." Fourteen participants from diverse backgrounds had much to offer

from their respective fields: visual and performing arts, social work and nursing, education and research. (NBME & MCC)

1992   The Medical Council of Canada (MCC) developed a licensing examination using with SP-based stations as part of the Medical Council of Canada Qualifying Examination (MCCQE) to assess knowledge, skills and attitudes essential for medical licensure in Canada prior to entry into independent clinical practice.

NBME starts Research on SP-based methods of assessing clinical skills needed for entry into supervised practice.

AAMC SIG on SPs: Call-out to Deans of all AAMC medical schools to introduce the SP SIG and identify those interested in working with SPs. Call for Abstracts started.

SP Educators:

- Workshop at the Canadian Association for Medical Education (CAEM) - invited presenters with a business meeting at the end of the workshop to query about a professional society.
- Innovation in Medical Education (IME) Poster exhibit at AAMC and Booth: "Standardized Patient Trainers: Directions for the Future." Reception/Open House held at the IME meeting to promote SP Trainer Association
- One Day SP Trainer Lagniappe Caucus, New Orleans LA held prior to AAMC. First meeting to require a registration fee ($20.00)

AAMC consensus conference on the Use of Standardized Patients in Teaching and Evaluation of Clinical Skills. (163 Attendees)

AAMC repeats the 1989 SP Survey. The use of SPs reported by 111 medical schools. Thirty nine of the 111 required learners to take an examination before graduation which involved SPs

1993   AAMC Consensus Meeting held in Washington DC

AAMC Group on Educational Affairs assigned Paula Stillman to formally establish a Standardized Patient - Special Interest Group. Target audience: people with an interest in advancing the SP methodology where members communicate, collaborate and meet to promote research, and identify solutions within their particular area. The membership is responsible for ensuring the ongoing activities of the group. Approximately 30–40 attended

Sentinel publication: "Special Issue of the Proceedings of the AAMC's Consensus Conference on the Use of Standardized Patient in the Teaching and Evaluation of Clinical Skills". *Academic Medicine* and *Teaching & Learning in Medicine*. Gave the community a basis for future work. SP Trainers Calgary Conference: "Set the Standard," 44 attendees

1994   Second meeting of the SP Trainers Group; Invitational Conference – "Standardized Patient Trainers Standard Setting Conference", Philadelphia PA. Overall objectives: develop a consensus document on the standards for SP training. Specific issues addressed included the knowledge, attitudes, and skills required to train a SP to simulate a history, a physical and/or a patient education encounter. Invitees explored the requirements for each of these types of encounters for both teaching and assessment for different levels of medical learners. 17 attendees.

1995   AAMC SIG on SPs

- Call for Abstracts continued
- Steering Committee established for the National Special Interest Group on Standardized Patients
- First SP Trainer Directory published and distributed by NBME

1996   AAMC SIG on SPs

- Call for Abstracts
- The SP Trainer Listserv was established by Jennie Struijk, University of Washington. This listserv was instrumental in promoting communication between SPEs and helped to accomplish the goals of networking.
- Second SP Trainer Directory published and distributed by NBME

1997   September: Standardized Patient Educators Conference: "Thinking Outside the Box," Little Rock, Arkansas with 49 Attendees. The keynote speaker was M. Joycelyn Elders, MD, Former U.S. Surgeon General. First use of "Standardized Patient Educators" in conference title

1997–99   AAMC SP SIG continues to grow

- Call for Abstracts see growth in submissions
- Presentations with end of meeting Professional development discussions
- Attendance continues to grow

1998   AAMC created the first SP Educator of the year award – "Award for Excellence in the Field of Standardized Patient Education"

The Educational Commission for Foreign Medical Graduates (ECFMG) introduces a SP assessment for all foreign medical graduates. Helped many institutions get started to pilot SP-based assessments.

1999   AAMC SP SIG Theme: "Collaborating in the Use of SPs: Models from Business, Research, Inter-Institutional and Inter-Departmental"

- Call for Abstracts
- Approx. 100 people attended (standing room only)

Regional Groups on Educational Affairs created SP-Special Interest Groups (CGEA).

2000s

2000   AAMC gives notification to disband all SIGs, including the SP SIG. Final SP SIG Theme: "Demonstrating the Value of your SP Program." The goal of the SP SIG was to develop and nurture a community with common interests in advancing the use of SP methodology, promote research and integrate presentations within the AAMC conference. Our goals were accomplished.

Standardized Patient Educators Conference held in Galveston, Texas, "New Horizons for SP Educators." The 3-day conference had 150 SPE attend.

- The first SP online casebook was presented, later folded into the ASPE website and through many iterations, is now part of the Virtual Resource Library

2001   ASPE: Final Legal/Formal Process for an SPE Association

First board of directors meeting held in Little Rock, Arkansas.

2002   ASPE:

- The first ASPE website domain (http://www.aspeducators.org) was established
- ASPE website went "live"
- ASPE Inaugural Conference was held in conjunction with the Ottawa Conference in Ottawa, Ontario. The theme was, "Advancing the Practice." The one day conference had 71 attendees.
- First ASPE logo created
- ASPE Quarterly newsletter established

2003   The Association Council of Graduate Medical Education (ACGME) supports SP methodology for several of the six required competencies.

ASPE 2nd Annual Conference was held in Virginia Beach, Virginia. The theme was, "Keys to Quality." The first stand-alone, 3-day conference had 163 attendees.

2004   The United States Medical Licensing Examination (USMLE) sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME) began using SP methodology in the Step 2 Clinical Skills Examination to assess history-taking, physical examination, communication skills and spoken English proficiency.

2017   ASPE Standards of Best Practices was published. ASPE logo updated.

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Ensuring a Safe and Supportive Work Environment

4

Holly A. Gerzina

Abbreviations

AEDs	Automated External Defibrillator
AHRQ	Agency for Healthcare Research and Quality
ASPE	Association of Standardized Patient Educators
CUS(S)	Communication technique: "**C**oncerned. **U**ncomfortable. **S**afety. **S**top
DOD	Department of Defense
IPV	Intimate Partner Violence
MOU	Memorandums of Understanding
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
TeamSTEPPS	™Team Strategies and Tools to Enhance Performance and Patient Safety

Standardized patient educators (SPEs) must ensure that all stakeholders-SPs, learners, faculty, patients, and program staff—have a safe psychological and physical learning environment. Three distinct principles relate to creating a safe work environment: safe work practices, confidentiality, and respect [1].

Introduction

Standardized patients feel motivated, engaged, and willing to invest effort in their task and do not mind demands increasing as long as the social environment in SP programs is supportive. The role of the SP trainer and the use of feedback are considered very important. [5] (p278)

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The first principle of the Association of Standardized Patient Educators' (ASPE) Standards of Best Practice (SOBP) Domain 1: Safe Work Environment is organized into three principles: safe work practices 1.1, confidentiality 1.2, and respect 1.3. Each principle has associated practices to guide the SP Educator in safe guarding the quality of education and stakeholders – SPs, faculty, and learners. Indeed, the ASPE value of safety is the "cornerstone of simulation practice" [1]. Research to support the practical application of the 19 practices associated with the three principles of safe work practices, confidentiality, and respect is explored throughout this chapter. Thus, as an SP Educator, your knowledge and application of Domain 1 ensures a physically and psychologically safe work environment and optimal education experience for all.

As an SPE, you manage human performance-based learning, including formative, and summative activities, as an integral part of a team dedicated to educating professionals and students-in-training. You must balance the faculties' goals and objectives for the learning or assessment activities with the safety and wellbeing of the SPs. You manage their expectations regarding the SP's' capabilities and limitations as well as the SP's' scope of work in assignments. In conversation with a colleague, Dr. Cathy Smith (oral communication, date 08/30/2018), a trained actor, expert SPE, program administrator, and current SP methodology organizational consultant from Canada, indicated that the SPE has an "ethical obligation to step into power" and articulate "the scope of practice as a peer" to faculty and clients requesting to co-create SP-based, formative and summative educational activities. We can adapt different teamwork systems used to improve patient safety to SP safety.

Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS™) is a systematic approach developed by the Department of Defense (DOD) and the Agency for Healthcare Research and Quality (AHRQ) to operationalize teamwork principles into practice [6]. It was designed to improve the quality, safety, and the efficiency of health care and is based on 25 years of research on teamwork,

team training, and culture change. In our case, the team is not comprised of doctors, nurses, respiratory therapists and pharmacists—our team is the faculty/clients, the learners, and the SPs. Barriers to good teamwork and safety include:

1. Changing faculty/clients, learners and SPs
2. Lack of time for preparation and planning
3. Miscommunication
4. Poor coordination
5. Distractions/fatigue

To assure a safe learning/working environment for all stakeholders, the faculty/clients, SPEs and SPs must coordinate efforts. While we each have a specific role, we have a shared goal in the quality and safety of the educational/assessment activity. Cooperation, coordination and communication are key. Thus, using the TeamSTEPPs™ framework, we examine the well-constructed SP program's pillars of managing, selecting, preparing, and directing SPs via application of principles and practices of Domain 1 - a safe work environment [2].

Situation Monitoring, Communication and Mutual Support

TeamSTEPPS™ skills in situation monitoring, communication and mutual support are useful to organize and articulate practical applications to integrate the roles of the SPE and SP as collaborators in the education team. See Table 4.1 Elements of TeamSTEPPS™

Situation Monitoring

According to TeamSTEPPS™, **situation monitoring** is a process for team members to be aware of what is going on around them which allows for adaption to changes and

Table 4.1 Elements of TeamSTEPPS™

Elements	Activities
Situation monitoring	Monitoring the safety of the SPs while meeting the goals and objectives of the activities in the design and the logistics
Communication	Direct, coordinate, assess, motivate, plan, and organize, to create a safe working environment 1. Set clear performance expectations of SPs and for faculty/clients 2. Identify/mitigate risks to safety in planning 3. Identify immediate concerns to safety 4. Empower SPs Ability choice to decline a role 5. Provide feedback/debrief to improve and address SP safety
Mutual support	Exert assertive and advocacy behaviors and actions to take when a problem presents itself

opportunities to provide support to others when needed. Similarly, the SPE must actively scan and assess situational elements to ensure safe working conditions for the SP as part of the function of effective SP performance-based assessment. For example, the design of the activity (number of rotations, number of breaks, physical, cognitive, and psychological challenges in the role portrayal) must be tailored to the program to provide SPs optimal teaching and assessment success. Bokken, van Dalen, & Rethans [7] advise that SP portrayals should be limited to 7 encounters; include at least a 30 minute break after several performances; provide a back-up SP to relieve an SP who needs a role break; and encourage SPs to turn down roles that are cause for concern due to personal psychological or physical discomfort.

Schlegel, Bonvin, & Van der Vleuten [5] interviewed 15 SPs from eight different nursing and medical schools to understand their perspectives on workplace satisfaction, work relationships and engagement. See Table 4.2 Summary of findings.

Table 4.2 Summary of Findings

Questions	Responses
Why do you do this work?	Contributes to future healthcare providers' education, Improved healthcare and society
What do you need to do this work?	Information about activity (learners, faculty, and goals) Feedback on portrayal, and accuracy of assessment Working with same SPE over time—less anxiety, more security and trust
What contributes to your satisfaction?	Appreciation, respect and trust Clear and accurate communication about schedules SPE solicits, listens and take action on SP concerns

Table 4.3 SOWWSS-SP Framework

Elements	Behaviors
Appreciation	Greet by name and with a smile Recognize personal events (birthday, illness, losses, achievements)
Autonomy	Allow/help to develop own learning and coping strategies
Feedback	Structured and scheduled feedback using validated instruments Self, learner, faculty/client, SPE assessment
Job security/salary	Transparency of how one is hired and form of compensation
Professional development	On or off site opportunities Individual learning plans
Responsibility	Co-creation of cases, ideas for process improvement
Room quality	Temperature, clean, stocked
Supervision quality	Knowledge, skills and behaviors of well-trained SPE (good interpersonal skills)
Working conditions	Early notice of events No more than 7 encounters a day with breaks Time to socialize with other SPs during events.

From this work, they published an SP-centric spreadsheet (SOWWSS-SP-oriented working spreadsheet) for the SPE to manage the SP program and enhance the SPE-SP relationship. See Table 4.3 SOWWSS-SP Framework.

The ASPE SOBP [1] further support these findings. For example, being transparent in addressing salary and how context (geographic or case content) may affect the remuneration offered is considered a means of displaying respect. Providing job autonomy improves work engagement and guards against adverse effects. For example, SPEs may debrief post-encounter with an SP by engaging him to identify personally effective coping strategies versus prescribing a coping strategy.

Communication

Importantly, the SPE must screen SPs prior to recruitment for a role and assess potential SPs for conflicts of interest or unsuitability to participate in a particular scenario. As an example, an SP disclosing a pre-existing medical or psychological challenge with a complex case or disclosing an existing personal relationship with a potential learner, are both important to appropriate safety practices. SPs with pre-simulation life experiences such as diseases or health conditions or with existing challenges around specific roles need to be provided the opportunity to opt out. According to Boerjan, Boone, Anthierens, Weel-Baumgarten, and Deveugle [8], SPs reported feeling supported in declining a role to safeguard the impact of simulation on personal well-being. Additional attention should be exercised by the SPE to provide an opportunity during recruitment or training for SPs to disclose existing personal relationships with potential scheduled learners. This allows the SPE to avoid schedule-based ethical conflicts. Thus, preemptive screening by you the SPE can assist in prevention, identification and management of adverse effects. Specific tactics for a safe work environment include regular breaks, limiting the number of portrayals, providing a key phrase to signal discomfort, or verbalizing refusal of a sensitive physical exam that is not indicated [3]. An example of a respectful and assertive signal of discomfort is a statement modified from TeamSTEPPS™ communication technique, CUS(S). CUS(S) is an acronym to aid verbalizing "I'm **C**oncerned. I'm **U**ncomfortable. This is a personal **S**afety issue. **S**top." CUS(S) training provides a pragmatic and evidenced-based communication technique in healthcare patient safety that could also protect SPs in when declining a role or managing a potentially unsafe learning situation.

In addition to the scheduling patterns and communication techniques, the SPE must also anticipate and recognize potential occupational hazards, including environmental threats to SP safety. Examples of environmental threats specific to SP work include exposure to actual versus simulated medical equipment and other clinically related physical and chemical elements (e.g. simulated medications). Importantly, a pre-inventoried and/or controlled environment is critical to ensure both the physical safety of the SP and the integrity of the education or training. Optimal environmental control provides SPEs and administrative staff with secure dedicated space, storage, scheduling authority, room temperature control, and an equipment and supply inventory process. Schlegel et al. [4] describe responsibilities for work environment factors such as warm clean rooms, privacy, and provision of catering as means to enhance workplace satisfaction and relationships. Dedicated SP programs resourced to create and support a safe work environment are able to provide the maximum assurance regarding adherence to personal and environmental safety standards that enhance the quality of education delivered to the learner. Increasing threat levels to this principle are encountered when utilizing SP methodology in shared actual clinical space. Shared space confers an increased environmental safety risk for SPs, the education program, and actual patients. Dual purposed space increases liability for both education and clinical practices. A combination of systems and human error is likely to result in unintentional threat to SP via use of actual versus simulated equipment, e.g. live AEDs or live medication administration. Likewise, simulated medications or medical equipment administered in actual care can result in delayed or inappropriate treatment, risk actual patient safety and result in unintentional morbidity or even mortality. Strategies to avoid the deleterious effects include: administrative control of simulation supplies; routine inventory practice; securing simulation equipment separately from clinical space and restricting access to equipment to only simulation center staff.

Recruitment strategies for the SP are equally important for physical, cognitive, and psychological safety. According to Barrows [9], the SP presents the gestalt, including emotions and personality characteristics of the patient, not simply a list of medical history items and physical findings. Once recruited, the SP is carefully coached by a SPE to simulate an actual patient so accurately that the simulation cannot be detected by a skilled clinician. Further, ASPE emphasizes the SPs ability to role play, teach, assess, provide feedback and evaluate learner performance. Wallace indicates that the SPE "must do all this while supporting the SPs' efforts to make the patient's reality their own in such a way that their performances subtly, but palpably, communicates the complexity of what it means for a patient to be vulnerable and human" [10] (p xxiii–xxiv).

To maintain excellence in education and fidelity in simulation, the recruitment and screening of SPs is complex, relational, contextual, and collaborative. SPs recruited for an activity must be carefully screened to ensure appropriateness for the role (e.g., no conflict of interest, no compromising of

their psychological or physical safety) and be provided multiple opportunities to voluntarily opt out of an activity without concern about repercussions (e.g. when completing a demographic and information sheet; during recruitment via phone call or e-mail; during the training session). Administrative forms as well as phone and/or face-to-face interviews provide multiple points in time for the SPE to disseminate guidelines and parameters of a simulation activity to the SP while collecting and assessing fit for a particular SP role. Administrative forms that can be aligned with institutional policy include demographic sheets, standardized patient profile forms, or SP information survey sheets that provide critical information for the safe and effective audition and casting of a SP.

Once recruited, a letter of agreement needs to be created and provided to the SP. Typical letters of agreement provide specific logistics about the activity, role, location and time. The letter of agreement is a written confirmation, consistent with guidelines provided during the recruitment phases and also describes estimated compensation in the form of payment for services; travel expenses; food vouchers; parking vouchers or other agreed upon forms of remuneration. The written documents ensure that the SP is able to knowledgably consent to the activity and remuneration. Additionally, well-designed consent and release forms or memorandums of understanding (MOUs) must be completed and signed by SPs prior to participation in activities. Elements of these forms may include the following information: type of patient (standardized, simulated or clinical teaching associate); SP rights to personal privacy; purpose as an SP is to participate in education activity; no medical care will be received; waiver of rights to injury; confidentiality of student assessment and case materials; differentiation of activities that are/are not recorded; intended education use of any videos; and compensation. A well-written MOU informs and protects the SP, the learner, the fidelity of the education and the institution.

Mutual Support

The SPE must vigilantly monitor and continuously guide SPs by co-creating strategies to mitigate adverse effects of concerns of the SP. During the training period, it is important that the SPE inform SPs and clients about the criteria and processes for terminating a simulation if the SP deems it harmful and provide SPs with strategies to mitigate potential adverse effects of role portrayal and prevent physical injury or fatigue. Gerzina & Porfeli [11] indicate that in the critical time and process of debriefing SPs, SPEs could consider positive reappraisal as a means to assist SPs in mitigating negative effects of challenging emotional role portrayals. Further, SPEs and SPs can use TeamSTEPPS™ tools to enhance communication of information and concerns. As an example, "check-back" provides closed-loop communication and ensure information conveyed by sender is understood as intended by receiver. Using TeamSTEPPS™ tools to advance SP safety has the added advantage of efficiently teaching SPs about tools & strategies applied to patient safety and simulation exercises in interprofessional education and collaborative healthcare practice.

Situation monitoring and cross-monitoring creates awareness of a shared mental model among SPEs and SPs and encourages mutual support. Monitoring and awareness between and among SPEs and SPs provides a safety net to provide information, monitor or modify plans, and review concerns or challenges. Likewise, the brief-huddle-debrief model of communication is an effective way of organizing communication at the beginning, during, and at the conclusion of SP-based sessions or programs. Debriefing with good judgment by the SPE that facilitates SP self-reflection is an excellent practice to consider for quality improvement and to assure psychological and physical safety [12].

Conclusion

People who choose to become SPs do so because they feel they are making a real difference in the world. We owe it to them to create and sustain a safe and respectful work environment where they are well prepared and appreciated.

Ten Tips to Improve Safe Work Environment for SPs

1. Help faculty understand the scope of SPs work and understand potential threats to physical/psychological safety. For example, when designing the flow of activity with faculty, consider the number of repetitions and breaks to assure reasonable expectations for SPs. You may need to limit the number of time one SPs portrays the role within a certain time period.
2. Screen potential SPs to ensure they are appropriate for the role- consider their personal medical history and psychosocial history. For example, you may not want to recruit an SP for an intimate partner violence (IPV) case if they have experienced IPV.
3. Provide SPs with information needed to make informed decision for saying yes. Provide them with (background information on case, case specific key objectives, SP responsibilities, context (e.g., formative, summative, level of learner, placement in curriculum) and format (e.g., length of encounter, type of encounter) so they are

clear about their role. If the SP has agreed to participate in physical exams, you need to be clear about what confirm the specifcs of the physical exams they will be and how many times they will be expected to repeat the examination do it.

4. SPs should be aware of how they are being compensated.

5. SPs should be able to decline the offer or drop out of an activity if they feel they are not a good match without having to provide a reason or be concerned about offers of future work.

6. Once SPs are identified and agree, work with them to identify any threats to their physical/psychological safety as you go through training together. Work with them to identify potential adverse effects of role portrayal and strategies to address them.

7. Agree on the criteria and process for SPs and faculty to terminate a simulation if needed.

8. Monitor the simulation and respond to immediate SP needs.

9. Include a separate learner, faculty and SP debriefing and de-roling as close to the simulation as possible.

10. Provide a process for learner, faculty, or SPs to share any post activity adverse events.

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The Human Simulation Continuum: Integration and Application

5

Gayle Gliva-McConvey, Gina M. Shannon, Jamie Pitt, and Lou Clark

Abbreviations

ASPE	Association of Standardized Patient Educators
EP	Embedded Participant
HS	Human Simulation
HSA	High Stakes Assessments
INACSL	International Nursing Association for Clinical Simulation and Learning
PD	Program Director
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
SME	Subject Matter Expert

Opening Situation:

You've received a call from the Program Director (PD) of Otolaryngology, Dr. Smith. He has an urgent request – there is a resident who is struggling and has had patient complaints about her interactions with them. The PD is having difficulty identifying the specific areas of the resident's communication skills that were negatively impacting patients.

Dr. Smith: *Could you help me with this resident? I have to meet with the review committee in a week and a half to dis-*

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cuss this resident. We need to put something in place quickly. Is there some way to help me with SPs?

In order to help Dr. Smith and the resident, the SPE should ask "*How do I select the appropriate Human Simulation application and be prepared in this short time period?*" After exploring each application on the Human Simulation Continuum, we will decide what is the best way to help Dr. Smith's resident.

Introduction

Through years of experience, often gained by trial and error, seasoned Standardized Patient Educators (SPEs) have developed an appreciation for the scope, range and nuances of Human Simulation (HS). They recognize that human simulation applications are as broad as the objectives they serve, and therefore necessitate partnering with SPs in a myriad of flexible ways to best achieve wide-ranging curricular objectives representative of numerous learner groups. In fact, experienced SPEs constantly and intuitively adapt HS applications while working along a continuum – incorporating role-player, structured role player, embedded participant, simulated patient, standardized patient and standardized patient for high stakes certification or licensure assessments as needed. The ability of SPEs to skillfully modify their approach toward preparing successful learning activities with SPs is fundamental to our profession but has gone largely unreported in SP Methodology literature. Our chapter featuring the Human Simulation Continuum Model brings this important, yet often unacknowledged contribution, to the forefront of our profession by providing a framework in which to contextualize applications SPEs utilize to coach and train SPs in meeting curricular objectives.

How to read this chapter:

- Throughout this chapter we will use the abbreviation "SP" to represent the person who is being trained or prepared for a human simulation activity and applications

(role player, structured role player, embedded participant, simulated patient, standardized patient).

- As we move along the Continuum, we subscribe to Learner engagement as being directly related to role player competency [1].
- A well-designed scenario can be adjusted to the level of learner and/or objectives. A problem appropriate for novice learners can be adjusted so the level of complexity increases as learners gain experience and deeper knowledge.
- Assume all decisions when using the HS continuum are dependent on the context of the activity.
- We are using the term "script" to represent the *case details provided to the person portraying the role.*
- We will use the Association of Standardized Patient Educators (ASPE) definition of the SPE as, "those who work to develop expertise in SP methodology and are responsible for training and/or administering SP based simulation. Some may be trainers who exclusively work with SPs, while some may be faculty or healthcare professionals who work with SPs as part of their clinical and/or academic roles" [2].
- *Calibration* is defined and used as the process of configuring the SP portrayal within the trained range. Secondary calibration is used as a process to standardize an SP performance.
- We recognize that there are several names and evolution of names within the SP methodology. This is our attempt to provide a framework which categorizes those names as defined by their application.

When training approaches and the use of the SP Methodology are narrowly defined, then the full scope of the SP-based edu-
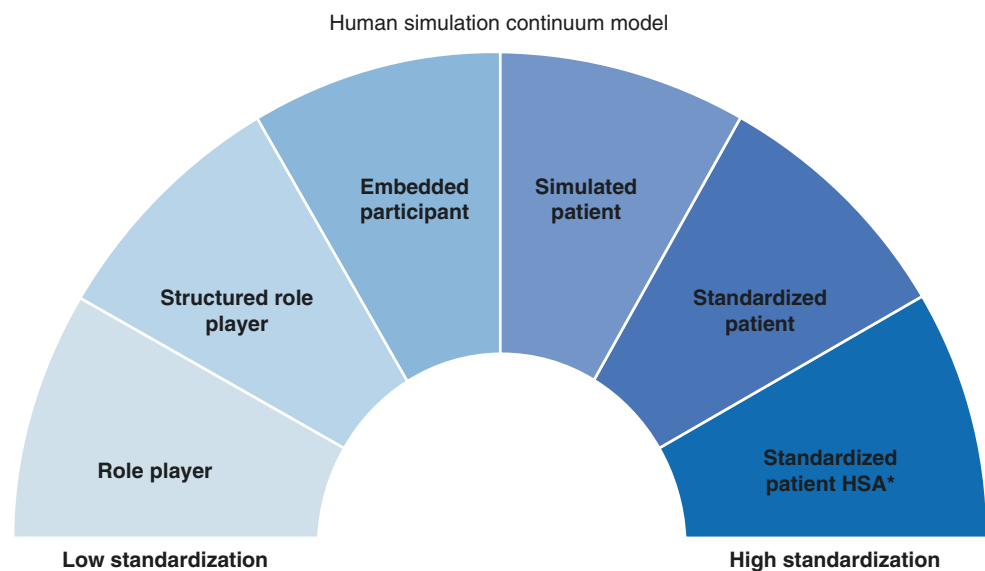
cational activities is underdeveloped and underutilized– Sydney Smee (Chap. 2).

Introducing the Human Simulation Continuum Model

In the past, SPEs entering the field were mentored by experienced educators and, over time, learned the nuances of the profession, subconsciously navigating this HS continuum. Today, opportunities for new SPEs may be limited for connecting with mentors due to availability and time. Coupled with the increasing demand for HS, novice SPEs want to learn as much as possible and as quickly as possible to do their jobs. Our goal is to show you how to use this continuum and frame it as a working model. We want to provide this model for all HS educators and simulationists; to put into words and to conceptualize what is normally taught and learned over years of experience. Once you can apply the HS continuum model, you can work closely with faculty, other SPEs, and SPs to effectively create realistic, reactive, and authentic human-simulation-based educational activities. Appendix 5.1 shows a printable Summary chart on when to select applications.

We use this graphic representation for the ***Human Simulation Continuum Model*** discussed in this chapter. As you look at the model – please consider *the lines between the six applications as porous and not as hard lines that prevent movement between applications*. Each application in the HS Continuum Model comprises an overall framework which may be applied to any educational simulation activity (Fig. 5.1).

Fig. 5.1 Human simulation continuum model

Human simulation continuum model

Embedded participant

Simulated patient

Structured role player

Standardized patient

Role player

Standardized patient HSA*

Low standardization

High standardization

Role Player

Definition   Van Ments [3] defines role play as: "asking someone to imagine that they are either themselves or another person in a particular situation. They are then asked to behave exactly as they feel that person would. As a result of doing this they, or the rest of the class, or both, will learn something about the person and/or situation. In essence, each player acts as part of the social environment of the others and provides a framework in which they can test out their repertoire of behaviors or study the interacting behavior of the group." Altun [4] suggests "Role-play is a strategy in which students are required to act specific roles through saying, doing and sharing". In the Simulated Patient field, as early as 1971, Barrows [5] noted role-players, as "an already proven technique (that) has been notably absent in medical training, where it could be of great value".

Role Players (Fig. 5.2) can take on a range of characters depending on the context. For example, they can be learners, patients, peers, family, physicians, other healthcare providers, etc. The SPE provides broad parameters of **a situation** and rules when performing in the simulation (e.g. physical safety, appropriate use of language, what behavior may be counter to the objective of the activity), but the interpretation of the role is left to the Role Player's imagination and personal perspective. Several Role Player examples which note the wide variety of role-play include:

- SP role playing a patient or family member: the SPE gives a situation such as, "you are a twenty year old who has learned his mother has been in an accident." or "you are a thirty year old who has learned she has been diagnosed with Diabetes".

- SPEs role playing Learners: to help SPs familiarize themselves with different type of questions and styles, and SPE may role play a range of learners.
- Creating a new case: the use of the Role Player application to assist the SPE and faculty in creating a new case is a time saving strategy. An SP may be an active part of the case creation process to provide an additional perspective. Faculty can immediately see and refine presentation and affect through role play.
- Learners as Role players opposite other learners

In the HS Continuum Model, the role player application has the least "structure".

Approach   The use of the Role Player application is mainly for formative and learning activities where standardization is not required. Since the Role Player application is not considered reproducible due to the high level of interactivity specific to each SP, situation and with each individual learner, it is inappropriate for assessment activities. Activities in which the role player application may be successfully implemented are based in formative learning such as (but not limited to):

- to demonstrate a human simulation and during workshops (e.g. faculty development and presentations to learners)
- new case development
- during SP training and recruitment
- where situations are based specific to SPs own unique history/perspectives
- when role play is part of a formative activity for learners as they may benefit from experiencing a preset situation

Fig. 5.2 Role player

Human simulation continuum model
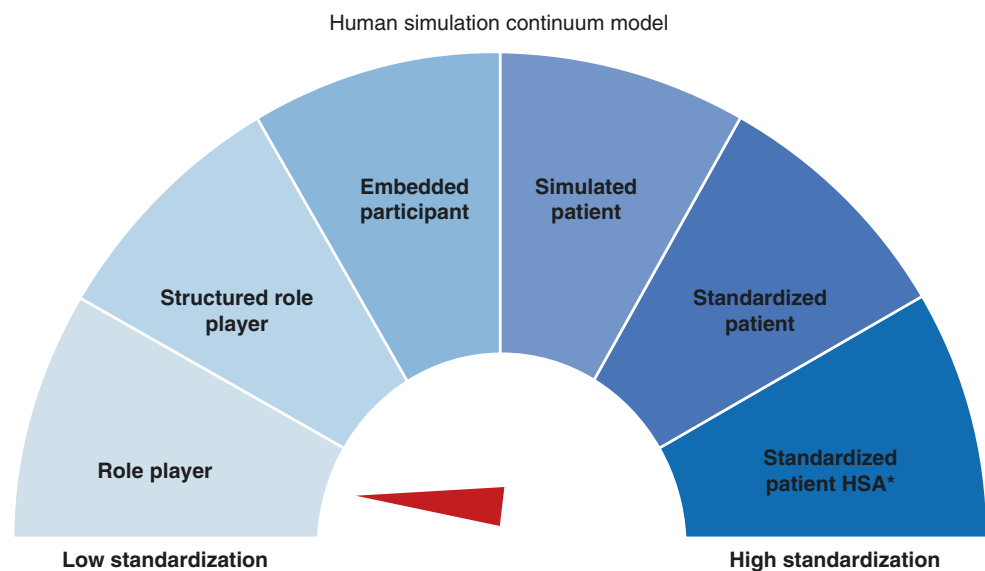
Advantages There are several advantages to selecting the Role Player application for an activity; the SP requires little preparation prior to the activity since the SP assumes and interprets the role from their personal perspective, you can recruit novice or experienced SPs, a novice SP has the opportunity to learn how to respond to unanticipated questions or situations, and there is no to little calibration.

SPE Considerations When using the Role Player application, keep in mind, you have little to no control/input to the SP's performance or their reactions.

> *Dr. Smith: Hey, I used Role Players in the past with my small groups will that work now?*

> *SPE: I know you've used Role Players in the past for formative teaching sessions. Selecting Role Players for your resident will allow you to see the interactive communication skills, however, you may not want to use a role player with your Resident because we want to ensure accurate portrayal in symptomatology. Additionally, you mentioned the goal is an objective assessment and perspective on this resident to take to the committee. Let's talk about some other options.*

Structured Role Player

Definition As we leave the Role Player application and move along the continuum, we start to incorporate more structure into the SPs performance. We define Structured Role Player (Fig. 5.3) as a person who has been provided a prepared script on **one aspect** of a scenario (e.g. presenting complaint or an emotional situation or a physical manifestation) which articulates a learning objective. On the HS Continuum model, the structured role-player is the first state (introduction) of *preparation and calibration*.
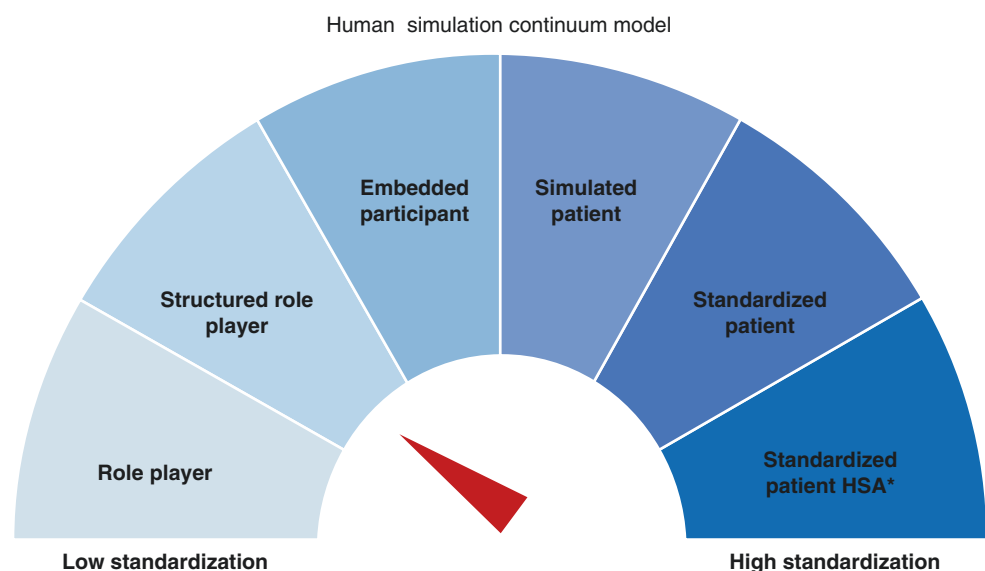
SPEs have expanded the traditional Role Player application by adding an element of SP preparation; thus, providing more structure. In other words; improvisation meets structure. In Structured Role Play, the SPE reviews scripted details of the *presenting problem* which creates the structure for the SP to portray within during the encounter. The SP must be familiar with the script details but can interpret the rest of the role as they imagine the character and from their own personal perspectives/experience based on the presenting problems. These parts of the role are improvised because it does not impact the outcome of the interaction. For example, you would provide the descriptors and signs of a shoulder pain, then allow the SP to ad-lib the PMH, FH, SH and affect, as imagined or from personal experiences.

Alternatively, homework may be assigned for situations that require the SP to research aspects of the role (i.e.: cultural beliefs). The SPE reviews the search parameters during the assignment and follows up with discussing the results of the research with the SP, to guide and ensure the portrayal meets the learning objectives.

Approach Activities that can successfully implement the Structured Role Player application are based in formative learning such as (but not limited to):

- Targeted coaching and remediation (different elements need to relate to each other – more structure; may build on role play)

Fig. 5.3 Structured role player

Human simulation continuum model

Embedded participant

Simulated patient

Structured role player

Standardized patient

Role player

Standardized patient HSA*

Low standardization

High standardization

- When training SPs to provide feedback (e.g. to practice responding to different learner skills and communication styles)
- Activity objectives require specialized skills including knowledge of cultural humility principles (i.e. non-verbal communication, language and specific cultural norms)
- Faculty development workshops where more nuanced portrayal is necessary to teach learners who will be actively working with your human simulation program (e.g. preceptors/facilitators)
- Provide learners with a range of (SP) patient stories that are all individuals with the same chief complaint and thus not highly standardized in other aspects of the patient presentation.

Advantages The most lauded advantages of Structured Role Play are the use of SPs' previous experience in simulation, minimal SP preparation, and the SPE maintains control of specific aspects of the scenario.

SPE Considerations Some standardization/calibration is required but Structured Role Players have low calibration across multiple SPs. However, structured role portrayal is partially reproducible because of the scripted components. Additionally, if the SP repeats the role across multiple learners, aspects of the role that were initially improvised become part of the core scenario, again adding structure and some reproducibility of the role.

When recruiting for a Structured Role Player, an experienced SP can be quickly prepared, building on their experience and comfort with simulation activities and improvisation, (for more information on the use of improvisation and theatre training techniques in human simulation, see Chap. 7).
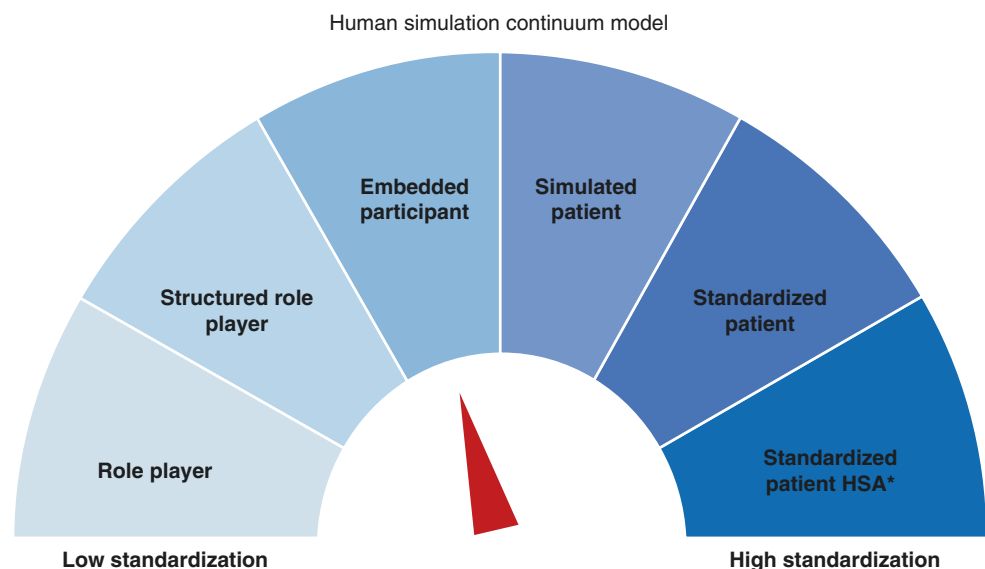
SPE: "Hello Dr. Smith, perhaps we may want to consider a structured role play by an SP. This allows us to give the SP a common ENT complaint that is frequently seen by your resident but will allow the SP to use their own history and experiences for the interaction. Since this is a one-time encounter, we don't have to worry about repeatability. The SP I had in mind has a lot of experience and can be ready for the encounter after a brief training tomorrow."

Dr. Smith: Now that I think of it, my resident is also having problems with other members of the team, should we think of something that can work?

Embedded Participant

Definition Moving along the Human Simulation Continuum, we are increasing the preparation, calibration and scripting required. Also known as a confederate, an Embedded Participant (EP) (Fig. 5.4) is defined as an individual who is trained or scripted to play a role in a simulation encounter in order to *guide the scenario*. Based on the objectives, the level of the participants and the needs of the scenario, guidance may be positive or negative and used as a distractor. An EP may be known or unknown to the participants [6]. Nestel et al. [7] defines EP responsibilities to include offering safety to both learners and simulators, adding realism to engage the

Fig. 5.4 Embedded participant

Human simulation continuum model

Embedded participant

Simulated patient

Structured role player

Standardized patient

Role player

Standardized patient HSA*

Low standardization

High standardization

learner, offering a bridge between faculty and learners and collecting data not normally available.

Often the *drivers* of the scenario, the EP is given more latitude and control of the scenario than in other Human Simulation roles; therefore, the EP requires appropriate training to perform their roles and scenario responsibilities throughout the encounter to ensure activity objectives are met.

Approach Activities that can successfully implement the Embedded participant application are (but not limited to):

- When it is appropriate for an SP to provide guidance in the scenario.
- When you have an SP with a healthcare background and cultural knowledge about related professions (e.g. if training for a nursing role, the SP understands the professional duties of a nurse and cultural knowledge of the nursing profession)
- If you need a family member in the scenario
- If you have SP/actors experienced in medical role-play [8]

SPE Considerations Casting for an EP requires specific qualities, characteristics and the experience/background for the role. Advantages of casting a healthcare provider as the EP includes minimum time to train the technical skills required, knowledge of the healthcare team dynamics, familiarity of the learner's demographics and training to be able to provide the appropriate responses.

> *SPE: "So we have an EP that may work in a supporting team role – this is a great idea for some training. Usually an EP works as part of a team. While working with an EP in a team setting will look at team communication, I understood you wanted to have an objective assessment on your resident's communication skills with individual patients in order to be prepared for the committee review."*

> *Dr. Smith: You're right, I like the idea of simulating a group experience, but that may be for another time.*

Tip As convenient as it might be to ask *someone* to quickly step in to play an EP without any training, Sanko et al. [9] stress that "programs that lack training and assessment of ESPs do their learners and their programs an injustice, robbing them of the full spectrum of engagement and learning that can take place in a well-rehearsed, well-rounded, and well-acted simulation experience".

Prelude: Simulated Patient Versus Standardized Patient

Moving along the Human Simulation Continuum, we're approaching increased standardization of a portrayal; Low calibration to High calibration.

Widely debated, the definition of the simulated patient has taken several pathways and evolutions. Which is why it is the position of these authors and editors is that this continuum, represented as a dial, is needed now more than ever to help navigate the ambiguity and disagreement often associated with common definitions in the Human Simulation profession. It is imperative to address this ambiguity and disagreement because it is a hurdle to advancing our profession. Shared language supports us in consciously choosing why and how we select HS applications to ensure better outcomes in order to contribute to the broader mission and scholarship of Healthcare simulation—patient safety. Our hope is that the HS Continuum model is used to establish a common language and to clarify best practices for choosing appropriate HS applications for each educational simulation activity.

Simulated Patient

Definition "The Simulated Patient (SP) (Fig. 5.5) is a person who has been carefully coached to simulate an actual patient so accurately that the simulation cannot be detected by a skilled clinician. In performing the simulation, the SP presents the 'Gestalt' of the patient being simulated; not just the history, but the body language, the physical findings and the emotional and personality characteristics as well" [5].

Before we talk about simulated patients, it is important to understand the origin and evolution of SP methodology. Interestingly, SP methodology was first based in assessment. In the 1960s, Dr. Howard Barrow's original intent when creating the *Programmed Patient* was to have a better way to **evaluate and assess** the basic skills of his neurological students [5]. Barrows wanted "*the variation in the room to be the learner, not the patient*" (H.Barrows, personal communication October 16, 1975). Development of cases were based on real, de-identified patients of his at the time. He wanted the "*patient substitute*" to completely embody the patient and all the features of the patient problems which linked back to the educational goals. More simply put—clone the patient and standardize the portrayal **within the individual**. Barrows prepared the SPs to authentically "recreate the history, personality, emotional structure, responses, and physical finding of an actual patient". During training, the Programmed Patient was to assume the real patient's perspectives. The SPs own life experiences were explored only as a source for understanding the experiences and feel-

Fig. 5.5 Simulated patient

Human simulation continuum model
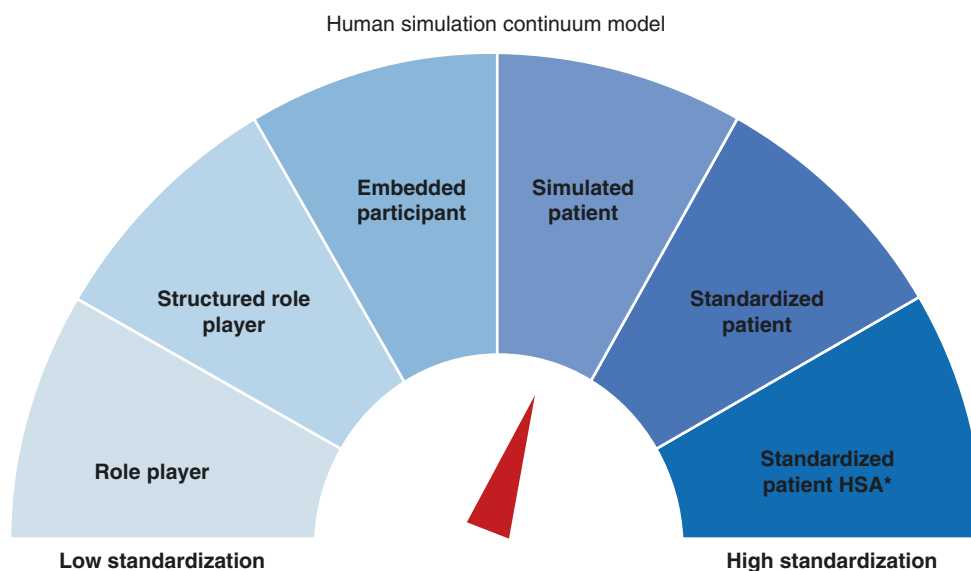
ings of the real patient. Barrows' Programmed Patients were easily reproducible because the scenarios were scripted after a real patient, which met his desired goal: assessment [5].

As Barrows worked with Programmed Patients, he further evaluated the concept of a normal person being programmed to be the patient. He felt that it was not a good term, that the patient substitutes did not have a fixed program and it was more accurate to consider them as "patient simulators". The term Patient Simulators was first seen in the literature in 1968 but quickly changed to Simulated Patient (SP) and became more commonly used [5].

Barrows continued to develop the techniques and introduce educators to the SP methodology. As a founding faculty member at McMaster University Health Sciences, he contributed to the development of a problem-based learning curriculum. and re-focused his efforts on formative teaching with SPs. As the methodology expanded and more educators embraced the *simulated patient* method, preparation was less focused on mimicking a single patient for assessments and became less structured to better meet teaching objectives. In the 1980's Barrows updated his techniques providing specific details and delivery such as calibrating emotional states, standardizing verbiage, sharing learning objectives with the SPs, and including SPs in the real-time scenario development process. He continued to recommend scenarios based on real patients but, over the years, appreciated the value of integrating the SP's personal experiences and backgrounds into the case and their contribution to the realism of the simulation. The SPs integrated portions of their own background once vetted for any distractors, blending them with pre-constructed portions of the scenarios.

As the definition of Simulated Patient matures, ASPE states "carefully trained SPs are able to respond with more authenticity and flexibility to the needs of individual learners and are referred to as simulated patients" [2]. Bokken [10]

identified authenticity as a major factor in the simulated patient application with the emphasis on facilitative instruction from the patient perspective.

Approach Activities that can successfully implement the Simulated Patient application are (but not limited to):

- Formative teaching and assessments (including assessments in clinical settings and practices)
- When increased details are needed in multiple aspects of the case
- When increased calibration of role portrayal is required with a single SP
- When preset responses based on the learner's questions are needed.
- When some degree of reproducibility and repeatability is required

Advantages The advantages of the Simulated Patient are thought to offer flexibility in response to learners and therefore meet individual needs, introduction of the variation of patient presentations of a diagnosis/character and the inclusion of SPs to create authentic presentations [2].

SPE Considerations Simulated Patients require memorization, and preparation and/or calibration time. You as the SPE, have influence and input to most aspects/components of the role.

> *SPE: Another option is a Simulated Patient. You can provide the relevant clinical information, then we can allow the SP to fill in some of their own history and or experiences after training the SP to ensure that there are no distractions that may mislead the resident. You can even add some questions from the SP and communication challenges to see how your resident responds.*

Working with a Simulated Patient, you have more ability to guide the SPs' reactions to the resident. While this is a one-time encounter, we can keep this case for future uses if you want to use it for other residents. We can be ready for the assessment after training tomorrow.

Dr. Smith: I like the idea of having more ability to guide the SPs' reactions and giving the resident some pre-set challenges.

The Great Debate: "Simulated" Versus "Standardized"

Over the years, the term Standardized patient became analogous with high stakes assessment internationally. Nestel et al. noted the term "standardized" reflects the heavy assessment context and conflicts with individuality, person-centeredness, and global variations [11]. It was noted the term *simulated patient* was primarily used outside North America, however, recently, we have seen a resurgence in using *simulated patient* within North America.

This growing methodological shift may contribute to a *perceived* separation in the conceptualization and implementation of HS. This separation (Simulated vs. Standardized) can limit the way educators use the SP methodology, even though the definitions of the terms *Simulated Patient* and *Standardized Patient* are often used interchangeably as seen in the Society for Simulation in Healthcare Dictionary [6]. SP Educators in North America who work

with SPs outside the licensure and certification organizations, recognize the flexibility and readily move along the whole continuum.
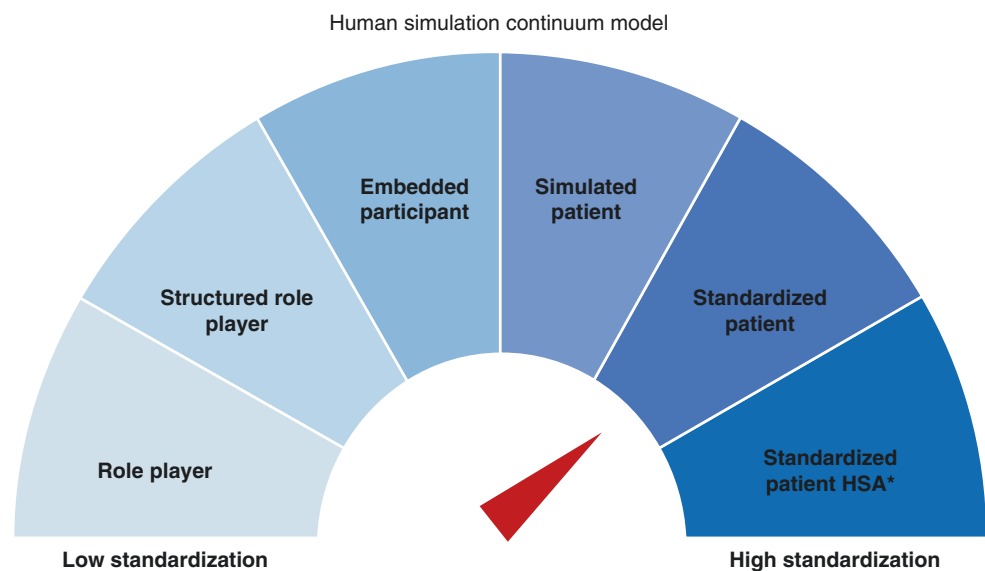
Standardized Patient

Definition "Standardized Patients (Fig. 5.6) 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" [12].

In the early 1980's two events further influenced the development of SP methodology. The first occurred when Dr. Geoff Norman renamed *Simulated Patient* to *Standardized Patient*. At the time, Norman argued that training was based on the standardization of a *specific patient problem* and a standard checklist. Norman felt the term *simulated* did not truly represent the academic credibility of the methodology and the advantages of working with SPs in training and assessment over clinical patients [13].

In healthcare education, the increased acceptance of SPs in teaching and assessment resulted in a need for **multiple** SPs to be trained for the same case to meet curriculum demands. Case development became more structured with increased details requiring further memorization and calibration among multiple SPs portraying the same case. Therefore, preparation required more time and resources. Bokken used "consistency" as a defining factor in the standardized patient

Fig. 5.6 Standardized patient

Human simulation continuum model

Embedded participant

Simulated patient

Structured role player

Standardized patient

Role player

Standardized patient HSA*

Low standardization

High standardization

application with an emphasis on evaluation (whether it is formative or summative) [10]. However, it must be noted SPs should retain their ability to be reactive in their responses to individual learner's communication skills and to support the learner-centered aspects of communication.

Approach Activities that can successfully implement the Standardized Patient application are (but not limited to):

- Formative teaching activities
- Assessments, (formative or summative)
- Sessions when standardization of multiple SPs for the same case are required
- When preset responses based on the learner's questions are required
- When pre-set standardized questions, challenges are needed
- When a high degree of reproducibility is required

Advantages The Standardized Patient application advantages include; highly reproducible, decreased variance in performances within the individual SP and across multiple SPs and sites therefore providing same learner experiences,

SPE Considerations Preparing Standardized Patients requires training rigor which means the SPE has a high degree of influence/input to all aspects of the scenario and the role portrayal of all the HS applications. The experienced Standardized Patient will have an understanding of the range and nuances of roles on the Human Simulation Continuum. In fact, understanding the Standardized Patient techniques allows the SP to perform all applications on the continuum.
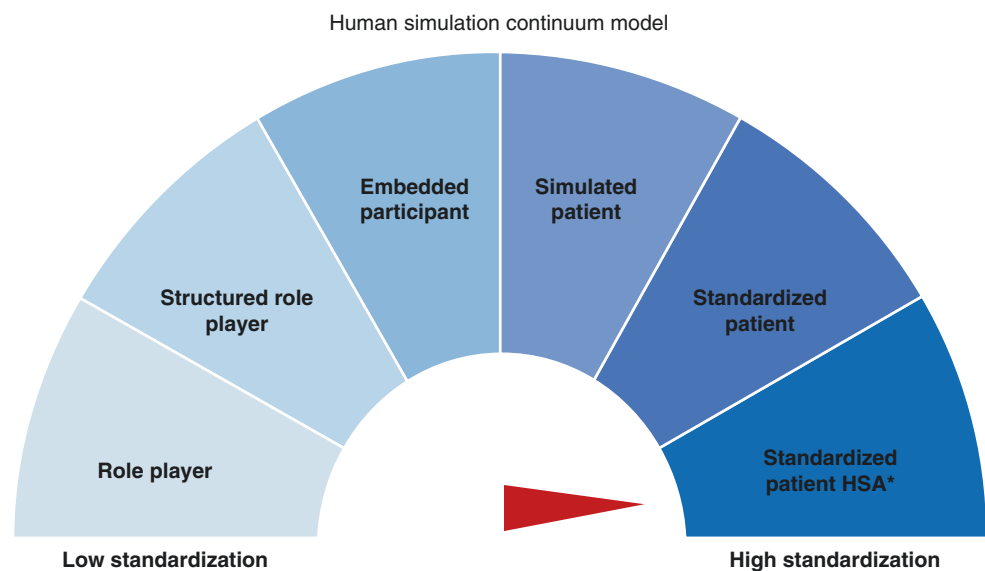
Dr. Smith: I like the idea of a Simulated Patient, but will a Standardized Patient be better for my resident assessment?

SPE: "I know you've used multiple Standardized Patients trained on the same case to assess your on-boarding residents. Selecting a Standardized Patient has a high level of standardization which work wells for multiple learners and provides the same case/experience. It does take significant time to create an appropriate case and uses more of your resources for training a single encounter. If you want to create a more structured experience, and a case that is more standardized, I would be happy to work with you."

Standardized Patient: High Stakes Licensure Assessment

Definition The second event that transformed the Simulated Patient identity was the focus of medical education research in North America into the assessment of clinical performance. Extensive research gave validity to the SP application in summative high-stakes licensure assessments in both Canada and the United States. Working with multiple Standardized Patients (Fig. 5.7) for high-stakes licensure assessments required significant modifications in the traditional case development process. The training process became very structured for reproducibility and consistency

Fig. 5.7 Standardized Patient for licensure assessment

Human simulation continuum model

Embedded participant

Simulated patient

Structured role player

Standardized patient

Role player

Standardized patient HSA*

Low standardization   High standardization

for training at multiple sites, responses were highly scripted which did not allow for variance in portrayal and reactions to the examinee. Nestel et al. reflects on the preparation process for high stakes assessment as having the SPs *behavior* standardized [14]. Training was resource intensive and took multiple training sessions over many hours and multiple days. Of course, this was warranted due to the licensure requirements, standards and defensibility. As a licensing organization, the National Board of Medical examiners must ensure "the examination is standardized, so that all examinees receive the same information when they ask Standardized Patients the same or similar questions" [14].

Preparation for high stakes assessments is the highest form of standardization (therefore at one end of the continuum) and not normally used outside of licensure or certification.

Uses Licensure or accreditation summative assessments.

Advantages High standardization between multiple SPs across the same case, across multiple sites, high level of control of all aspects of the role (portrayal, assessment instrument and feedback).

SPE Considerations That is not to say there isn't standardization for summative high stakes assessments at individual institutions. For these summative assessments in a curriculum, we would move the dial on the continuum close (but not to the extreme standardization) to the SP-high Stakes Assessment spectrum to meet institutional assessment requirements.

> SPE: *"Dr. Smith, while we train our SPs for our summative assessments, we don't find the need to prepare them at the level of a national licensure assessment. The process is very intensive, both in faculty preparation of training materials and numerous hours of training the SP. We find when preparing our SPs for summative assessments, we focus on high accuracy in role portrayal and completion of the assessment form. We are able to give our learners a high stakes assessment experience and performance information to the learner and our faculty. I am confident this is not the right selection for your purposes now."*

> SPE: *"Dr. Smith, I hope our discussions about the various options in preparing the SP for your resident assessment has given you a good idea on which human simulation application you would like to utilize to meet your objectives. Which one would you like to select?"*

Applying the Human Simulation Continuum Model

Successful use of the HS continuum model (Fig. 5.1) lies in the way it is applied. Application is a carefully thought-out process considering a sequence of both internal and external factors. SPEs have to make decisions in response to external factors and pressures such as subject matter expert (SME) expectations, curricular requirements and resource limitations to guide preparation and selection of the best HS method. In response to internal factors, the SPE must decide which behaviors must be calibrated and how much standardization is required according to the activity and learning objectives.

Tip HS applications can be combined in a multi-station activity. For example, depending on the individual station's objectives it is possible to use a combination of a Structured Role Player for one station and a Standardized Patient for the second and a Simulated Patient for the third station.

Human Simulation Decision Template (In-Take Information)

There are specific questions and factors you will want to discuss during the initial planning meeting with subject matter experts (SMEs) when they are thinking about using a human simulation. Factors such as expectations and objectives for a simulation activity, instructional design decisions, use of resources and logistics are explored. Table 5.1 (below) is intended to help you work with SMEs to obtain enough information so you can select the appropriate method along the continuum. If you are the SME, consider questions outlined in Table 5.1 when you are considering using human simulation in your activities. A decision template, or activity intake form, of questions to discuss when meeting with the SME (or to ask yourself) is seen in Table 5.1:

The Importance of Strategic Selection of the SP Best Suited for the HS Application

In the same way we are identifying the elements of the activity, we are identifying the skills and qualities of the SP in order to select the best suited SP for each learning activity. Once you have met with the SME and completed the decision template, you will start to identify the attributes/qualities for selecting the best matched SP for the scenario and educational activity in accordance with The HS Continuum. This selection process is important to ensuring a smooth running and successful learning activity.

Table 5.1 HS decision template (educational activity intake information)

Scenario breakdown	Scenario Descriptor

Purpose	Why are you doing this simulation?
	Formative: bedside teaching, group teaching:
	    Affords the SP more latitude when interacting with the learner, lower level of standardization (if any) required includes verbal and/or written feedback.
	Formative: assessment
	    Requires calibration of specific areas of the case.
	    Assessment of skills includes written and/or verbal feedback
	Summative low stakes: measuring or formal assessment of skills
	    Requires a high level of standardization.
	    May or may not include some form of verbal or written feedback
	Summative high stakes: formal assessment of skills
	    Requires highest level of standardization
	    May include written feedback only
	    Impacts progression/advancement

Curriculum Learning objectives/goals	What are the learning outcomes? How do you know the goals have been achieved? What are the Learning objectives? When setting the learning objectives/goals for the human simulation session consider learning theories provided on INACSL's website [15]: https://www.nursingsimulation.org

Target audience	Experience of the Learner:
	    A novice learner may require more preparation. However, novice learners often display excellent instincts early on and it is important to reinforce what they do well, naturally.
	    An experienced learner will bring to the session past experiences. However, just because learners are more experienced it does not mean they will perform flawlessly.

Timeline	How much time do you have to plan for this activity? (days, weeks, months)
Safety concerns	Are there any possible safety concerns for SPs, learners, or staff?
2. Instructional method	
Consideration and Selection of the Human Simulation Application	Consider the most appropriate HS application: Role Player, Structured Role Player, Embedded Participant, Simulated Patient, Standardized Patient, Standardized Patient HSA.
3. Resources and logistics analysis	

Activity Overview	What is the vision for the activity?
	    How will learners be required to prepare for this activity?
	    How often the activity will be repeated (is the activity a one-time activity or will be conducted several times)
	    Number of learners per session
	    Individual or group activity
	    Number of stations/cases
	    Will the learner complete a post-encounter exercise?
	    Debriefing format

Faculty participation	What role will the faculty have? Will faculty be observing live or remote? Will faculty be involved in pre-briefing/debriefing and feedback? Will briefings and feedback include SP? What assessment instruments will be used for activity?

SPE preparation: Format the SP session	What information does the SPE need to know to create the activity flow?
	Timing and activity flow
	    Time of each encounter (time the SP is in role)
	    Number of times role performed
	    Time in between encounters, breaks
	Checklists: Will the SP complete content checklist checklists (history, physical examination etc.) – how much time will be allowed to complete the checklist(s) or paperwork
	What type of SP Feedback/Debrief is required?
	    Verbal Feedback
	    Written feedback
	    How much time will be allowed?

Case – Scenario	Is this an Existing Case or New Case?
	    Use of existing case
	    Modifications of existing case
	    Development of new case with SME

Resources	What is needed for this session?
	    Staffing
	    Number of SPs needed
	        Training single or multiple SPs
	    Materials (i.e.: written materials, props, medical supplies, catering, gowns/robes, etc.)
	    Space: number of rooms, large group orientation space etc.)
	    Technology needed
	    Budget: existing or need to generate a budget

4. Decision-Making Process of the SPE	

Instructional method → Rationale → Reason for selecting the HS Framework

Tip Most expert SPEs interviewed talked about "strategic selection." Wallace [16] supports a process of careful casting to elicit better performances which helps cut down on training time *"primarily because you will not have to spend a disproportionate amount of time monitoring and assessing the SP to maintain the high standards you expect."*

Qualities of SPs and Strategic Selection of SPs

When recruiting (persuading an SP to become a new member of the SP Program) and interviewing SPs for a general SP program, you are looking for multiple skills and qualities in the SP (see Chap. 10). As you get to know your SPs, you will get to know the skills-sets which may be influenced by attitude, whether they are an introvert vs. extrovert and other behaviors. While most SPs may have many of the desired skills, each will have specific strengths and qualities which will influence your selection for the general program and subsequent assignments. Important qualities in considering hiring SPs include: Comfort with role play/improvisation, emotional/affective endurance, good memory, and comfort with the physical examination. One SPE, Louise Schwercherdt, (interviewed 9/19/18 by Cathy Smith) shared her thought process on selecting SPs: *"I go a lot on their personalities, and I know which SPs are strong in which areas. So, for instance, clinical psych, I know which SPs are capable of sitting with me for an hour and developing a scenario and being able to do it and which SPs aren't...."*

Case demographics (e.g. age, gender) will often be the first consideration in casting/selecting (carefully choosing an SP as being the best or most suitable). Once the case demographics requirements are fulfilled, qualities to consider when you are selecting the best SP for the specific educational activity—as outlined in relation to The Human Simulation Continuum framework—are listed in Table 5.2. We are confident you will identify more as you consistently/regularly work with SPs.

SPE Decision-Making Processes: Pulling it All Together

By this time, you have organized relevant information by gathering the appropriate information to complete the HS Decision template which has helped you make deliberate and thoughtful decisions. Now, let's pull it all together. In this section, we will provide several sample scenarios and map the decision-making process of the experienced SPE as seen in Tables 5.3, 5.4, 5.5, 5.6, 5.7, and 5.8. and Figs. 5.8, 5.9, 5.10, 5.11, 5.12, and 5.13.

Table 5.2 SP Qualities depending on continuum applications

Human Simulation Method	SP Qualities
Role Player	Comfortable with improvisation and the unexpected with no/little structure. Experienced or Novice SPs
Structured Role Player	Comfortable with improvisation and the "unexpected" with minimal structure. Able to memorize details and merge them with personal experiences
Embedded Participant	Detailed Oriented Situationally aware: able to guide the learner, provides cues or directions. Works well in teams Professional experience in the field the simulation occurs
Simulated Patient	Comfortable with improvisation and the unexpected, likes to have some structure for a realistic portrayal Understands human behavior, wants to find motivation of character and backstory Role authenticity is key Memory Endurance Detail Oriented Reactive to learner individual objectives
Standardized Patient	Emotional/Affective Endurance Maintains consecutive, multiple portrayals, High cognitive load (portrayal, checklist completion, feedback), Role authenticity is key Memory Endurance Detail oriented Reactive to learner
Standardized Patient – Licensure/accreditation (High Stakes Assessments)	Emotional/Affective Endurance Maintain consecutive, multiple portrayals, High cognitive load (portrayal, checklist completion), Memory Endurance Detail oriented

Table 5.3 **Scenario 1:** Graduate medical education

1. Scenario Breakdown	
Situation	The Pediatric Palliative care department chair wants her **first year Fellows** to practice and debrief scenarios on breaking bad news.
Purpose	Formative assessment – Pediatric Palliative Care fellows' ability to break bad news in different stages of the process.
Curriculum Learning objectives/goals	Practice the core communication skills related to breaking bad news.
Target audience	Pediatric Palliative Care Fellows
Timeline	Activity conducted in 6 weeks
Safety concerns	There is an emotional endurance/stress safety concern for the SPs, learners, and faculty. We will be sure to de-role with SPs following the activity and train them to de-role between each session.
2. Instructional method	

Consideration and Selection of the Human Simulation Application	**Multi-Application required for this activity:**
	    Structured Role Play
	    Simulated Patient/Parents

3. Resources and logistics analysis	
Activity Overview	Total number of learners: 9 1 Demonstration of breaking bad news Total number of stations: 3 Total number of cases seen by learners: 3 Total number per group 3 (1 participating and 2 observe), then rotate Length of stations/activity: 25 minutes per station The Learner will: Complete a self-reflection write-up identifying the communication elements needing improvement and tactics they practiced improving them.
Faculty participation	Faculty will: Observe sessions and provide Feedback/debriefing after activity

SPE preparation: Format the SP session	Timing and activity flow
	    Demonstration: time in and time out for 1 hour
	    Station 1–3: 25 minutes each
	Checklists
	    No checklists for this activity
	Feedback:
	    Verbal Feedback for both cases will require SP and faculty feedback
	    No written feedback required
	Station 1: verbal feedback throughout the 1 hour
	Station 2: 35 minutes verbal feedback/debrief after encounter

Case – Scenario	Development of new case with SME (subject matter expert) will occur

Resources	*What is needed for this session?*
	    Staffing
	    Number of SPs needed: 3
	    Materials: none
	    Space: 1 classroom and 3 simulation rooms with recording
	    Technology: observation and recording

4. Decision-Making Process of the SPE Graduate Medical Education activity (Fig. 5.8)	

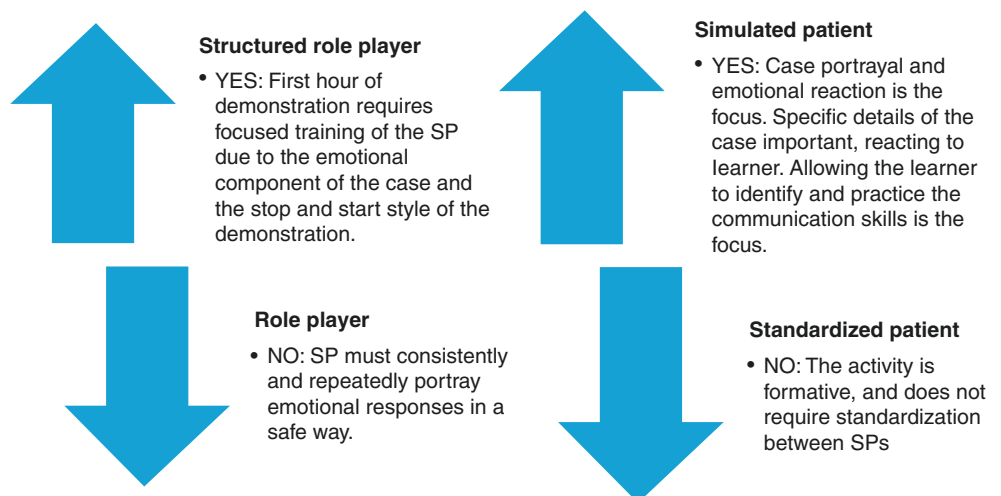**Fig. 5.8** Decision-making process of the SPE graduate medical education activity

Structured role player
- YES: First hour of demonstration requires focused training of the SP due to the emotional component of the case and the stop and start style of the demonstration.

Simulated patient
- YES: Case portrayal and emotional reaction is the focus. Specific details of the case important, reacting to learner. Allowing the learner to identify and practice the communication skills is the focus.

Role player
- NO: SP must consistently and repeatedly portray emotional responses in a safe way.

Standardized patient
- NO: The activity is formative, and does not require standardization between SPs

Table 5.4 **Scenario 2**: Undergraduate medical education – formative activity

1. Scenario Breakdown	
Situation	The **Undergraduate Medical Curriculum** Director wants his second-year medical students to practice their history taking skills prior to a formative assessment
Purpose	Formative teaching/Practice of skills
Curriculum Learning objectives/goals	Practice history taking skills with an SP. Discuss and determine how to improve their history and communication skills based on the simulation. Apply SP feedback to the 2nd case.
Target audience	Medical students who have experience with SPs.
Timeline	Activity conducted in 2 months
Safety concerns	No safety concerns for SPs, learners, or staff
2. Instructional method	
Consideration and Selection of the Human Simulation Application	**Multi-Applications**: Simulated Patient Standardized Patient: all students to get the same cases but not high stakes assessment
3. Resources and logistics analysis	
Activity Overview	Total number of learners: 160/class Number of learners per session: 1 – individual sessions Number of cases: 2 Number of encounters or stations: 2 Length Stations/activity: 30 minutes Learner will not complete post-encounter materials
Faculty participation	No faculty participation for this activity
SPE preparation: Format the SP session	Timing and Activity Flow: Length of time in-role: 30 minutes Continuous learner-SP interview Checklists: Checklist completed by SP (history, physical examination) Time allowed to complete the checklist: 10 minutes Feedback/Debrief: Verbal Feedback: Yes Written feedback: Yes Time allowed for feedback: 15 minutes
Case – scenario	Development of new case with SME (subject matter expert)
Resources	What is needed for this session? Staffing Number of SP required: Materials Building Space Technology: activity will be recorded
4. Decision making process: Undergraduate Medical Education (Fig. 5.9)	

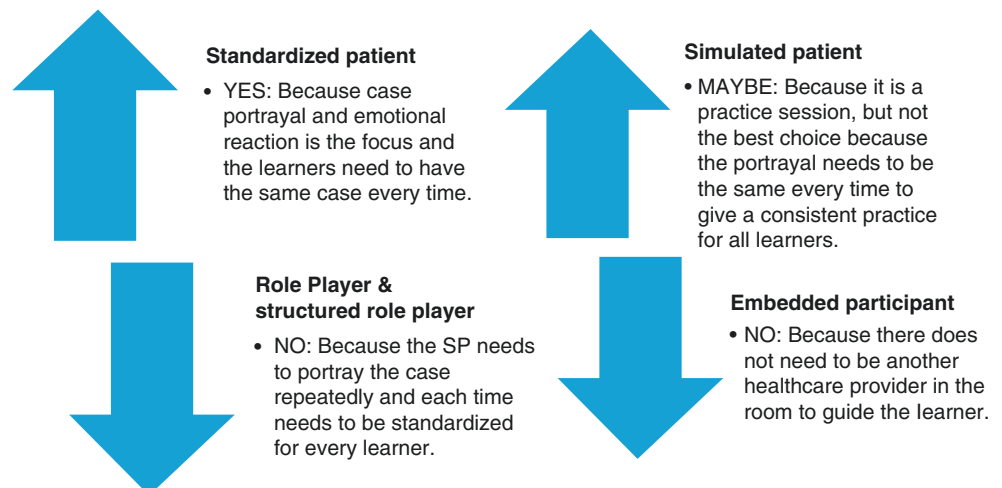**Fig. 5.9** Decision making process: undergraduate medical education

Standardized patient
- YES: Because case portrayal and emotional reaction is the focus and the learners need to have the same case every time.

Simulated patient
- MAYBE: Because it is a practice session, but not the best choice because the portrayal needs to be the same every time to give a consistent practice for all learners.

Role Player & structured role player
- NO: Because the SP needs to portray the case repeatedly and each time needs to be standardized for every learner.

Embedded participant
- NO: Because there does not need to be another healthcare provider in the room to guide the learner.

Table 5.5 **Scenario 3**: Non-healthcare activity

1. Scenario Breakdown	
Situation	Fundraising activity for the Development Department who want to show potential donors the importance of simulation.
Purpose	Marketing simulation center for outside donors who are unfamiliar with the field.
Curriculum Learning objectives/goals	Provide a basic understanding of SP methodology through demonstration and hands-on experience.
Target audience	Outside participants who are new to simulation
Timeline	Activity will be conducted in 1 month
Safety concerns	If cases involve any difficult topics, learners will be told beforehand so they may opt-out. SPs will be told the purpose of the event and who will attend.
2. Instructional method	

Consideration and Selection of the Human Simulation Application	**Multi-Applications**:
	  Structured Role Player
	  Simulated Patient
	  Standardized Patient

3. Resources and logistics analysis	

Activity Overview	Total Number of learners: 1 student and 1 Outside participant willing to be a part of the demonstration.
	Total number of stations 2
	Total number of cases seen by learners 1
	Length of stations/activity 1.5 hours
	  Station 1: 20 minutes
	  Station 2: 20 minutes
	  Debrief: 15 minutes
	Live recorded observation:
	  Station 1 Outside participants will observe an encounter with a student and an SP (**Simulated Patient/Standardized Patient**)
	  Station 2 Outside participants then have an opportunity to try interviewing the SP themselves. Participants playing the role of the learner will be given a list of example questions a healthcare provider might ask (**Structured Role Player).**
	  Group Debrief of both stations

Faculty participation	Faculty will:
	  Station 1&2: Remote viewing with Development Department team and potential donors.
	  Debrief the Demonstration

SPE preparation: Format the SP session	Time and Activity Flow:
	  Length of time in-role: 15 minutes
	  Continuous interview
	Checklist:
	  No checklist used
	Feedback:
	  Verbal Feedback from SP and faculty
	  No Written feedback
	    Station 1: 5 minutes of verbal feedback
	    Station 2: 5 minutes of verbal feedback

Case – Scenario	Create Structured Role Player scripts, New case for SP.

Resources	What is needed for this session?
	  Staffing
	  Number of SPs needed: 2 (1 for each case)
	  Materials
	  Building
	  Space
	  Technology: Activity recorded

4. Decision making process Non-healthcare activity (Fig. 5.10)	

Fig. 5.10 Decision making process non-healthcare activity

Standardized patient
- MAY BE: But the amount of preparation and standardization is not needed for this activity.

Simulated patient
- YES: Because it fully demonstrates the resources and preparation required for simulation, as well as how dynamic SPs are in responding authentically to the needs of learners.

Role player

NO: Because it does not fully demonstrate the resources required for simulation.

Structured role player
- MAYBE: For one of the two stations if the HS selected for the other station more fully demonstrates the resources and preparation required for simulation.
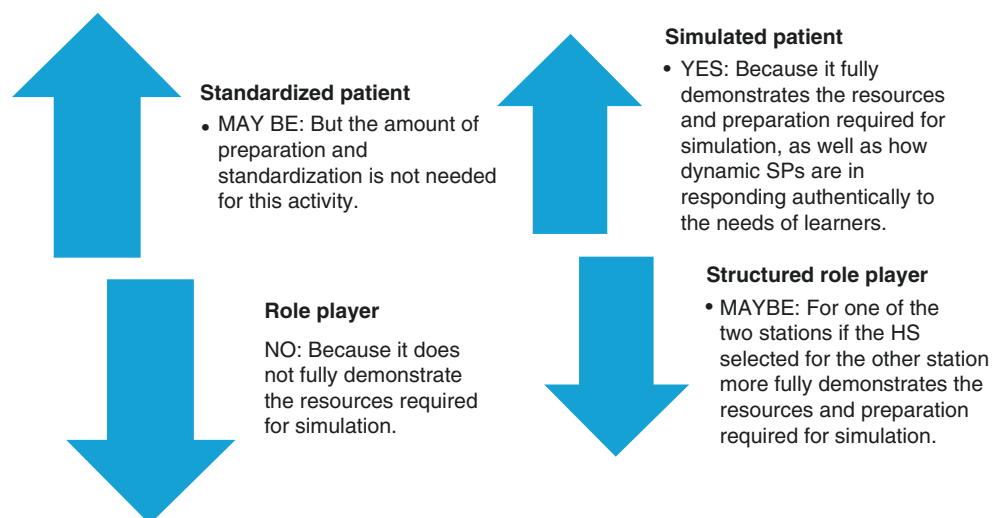
Table 5.6 **Scenario 4**: Undergraduate Pharmacy education – formative activity

1. Scenario Breakdown	
Situation	You have been asked to train SPs for a formative educational activity for Pharmacy learners.
Purpose	A formative introduction to the communication skills needed in motivational interviewing.
Curriculum Learning objectives/goals	Practice core motivational interviewing skills to assess readiness to change.
Target audience	Intermediate Learners who have had previous experiences with SPs.
Timeline/Status	Activity conducted in 1 month
Safety concerns	None
2. Instructional method	
Consideration and Selection of the Human Simulation Application	Role Player, Structured Role Player, Simulated Patient
3. Resources and logistics analysis	

Activity Overview	Total Number of learners: 180
	     Small groups of 8 – 10 learners per group
	Total number of stations: 1
	Total number of cases seen by learners: 1
	Length of stations/activity: 1 hour to work with an SP and Faculty facilitator.
	Learners will:
	     Prior to SP small groups, Learner will attend a lecture introducing the concept and then see an SP presentation/case to practice.
	     No post encounter materials

Faculty participation	Faculty will: Small Group Station: Faculty facilitator led group discussions

SPE Preparation Format of the session	Time and Activity Flow:
	Length of time in-role: 1 hour
	Time-in and time-out strategy be used in the session
	Checklist:
	     No checklists to be completed
	Feedback
	     Verbal Feedback from SP
	     No Written feedback
	     5 minutes for verbal feedback

Case Development	Motivational interviewing: New Case required: Smoking cessation

Resources	What is needed for this session?
	     Staffing
	     Number of SPs needed: 1 for each small group
	     Materials
	     Building
	     Space
	     Technology: No Live or recorded observation:

4. Decision making process Undergraduate Medical Education (Fig. 5.11)	

Fig. 5.11 Decision making process undergraduate medical education

Role player & structured role player

• YES: Because the session can be loosely structured to provide novice learners with similar experiences.

Simulated patient

• MAYBE: Because it is a practice session, but the amount of preparation and structure is not needed for this activity.

Standardized patient

• NO: Because case portrayal and reaction to the needs of the learners is the focus.

Embedded participant

• NO: Because there does not need to be another healthcare provider in the room to guide the learner.

Table 5.7 **Scenario 5**: Undergraduate Nursing education - formative activity

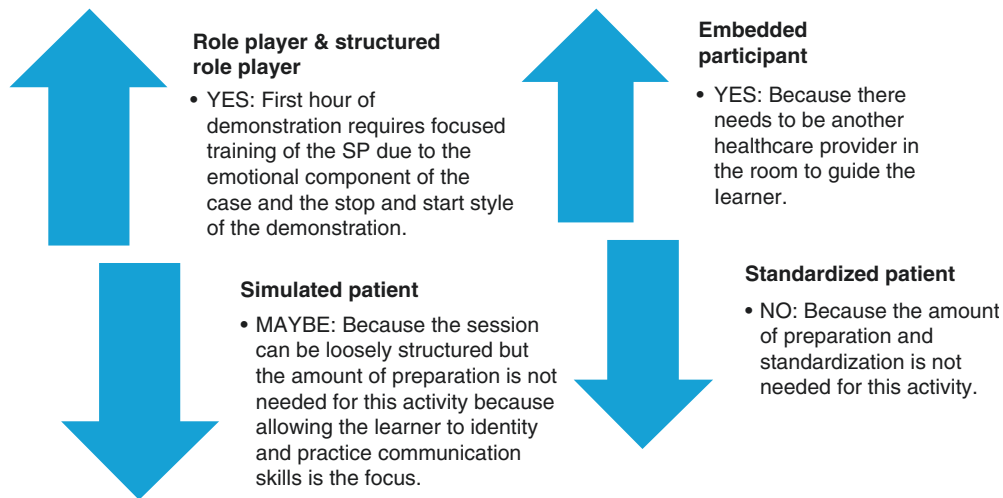| 1. Scenario Breakdown	
Situation	The mental health school of nursing department would like to introduce their students to therapeutic communication history taking. They have never worked with SPs before.

Purpose	Formative: bedside teaching, group teaching:
	    Introduce the Nursing students to how to work with SPs in a group teaching session
	    Practice therapeutic communication skills with a team member and patient

Curriculum Learning objectives/goals	Practice how to manage a patient with mental health concerns using therapeutic communication.
Target audience	3rd semester nursing student
Timeline	Activity scheduled in 1 month
Safety concerns	Psychological safety concerns for the SPs and learners. There were safety procedures put in place for the SPs and learners to be able to step out of the simulation when they did not feel safe. The SPs are trained a few days before the activity on the character portrayal and ways to protect themselves during the portrayal. The SPs and Embedded Participant pre-brief before the session and debrief and de-role after the sessions are over.
2. Instructional method	

Consideration and Selection of the Human Simulation Application	**Multi HS Applications required for this activity:**
	    Role Player: Demo with faculty in front of the class to show how to work with an SP using therapeutic communication practices
	    Structured Role Player: The SP will portray the patient
	    Embedded Participant: A nursing faculty member will portray another team member in the 2nd simulation activity. They are given prompts to help the nursing learner

3. Resources and logistics analysis	

Activity Overview	Total Number of Learners: 70 nursing students
	    35 will be in the morning and 35 in the afternoon
	    5 groups of 8
	Learners will:
	    Receive a lecture on therapeutic communication and a pre-brief on how to work with an SP.
	    In the pre-brief a faculty member with conduct a demo case with an SP.
	    Work through 1 case as a group.
	    Debrief as they move through the human simulation and at the end

Faculty participation	Faculty will:
	    Facilitate the time in and out of the activity
	    Observe live during the activity
	    Lead the debriefing and feedback throughout
	    Participate as an Embedded participant

SPE preparation: Format the SP session	Timing and activity flow:
	    Pre-brief demo will be 30 minutes
	    Small group sessions will last 1 hour and 30 minutes
	Checklists:
	    No checklists will be completed.
	Feedback:
	    Verbal Feedback and debriefing will take place during the small group session

Case – Scenario	An existing mental health case will be modified

Resources	What is needed for this session?
	    1 SPE
	    6 SPs (1 for demo and 5 for small group sessions)
	    1–2 faculty member/Embedded participant per group
	    2-hour training for multiple SP
	    Simulation/classrooms needed for privacy for small group sessions
	    Will charge the School of nursing for the cost of the SPs (training and performance)
	    Technology: live observation and recorded sessions

4. Decision making process Nursing Activity (Fig. 5.12)	

Role player & structured role player
- YES: First hour of demonstration requires focused training of the SP due to the emotional component of the case and the stop and start style of the demonstration.

Embedded participant
- YES: Because there needs to be another healthcare provider in the room to guide the learner.

Simulated patient
- MAYBE: Because the session can be loosely structured but the amount of preparation is not needed for this activity because allowing the learner to identity and practice communication skills is the focus.

Standardized patient
- NO: Because the amount of preparation and standardization is not needed for this activity.

Fig. 5.12 Decision making process nursing activity

Table 5.8 **Scenario 6**: Allied healthcare Graduate education: Physical Therapy - Summative assessment

1. Scenario Breakdown	
Situation	The Doctor of Physical Therapy (DPT) department requests a human simulation for the midterm and final exam for their musculoskeletal module.
Purpose	Summative high stakes: formal assessment of skills
Curriculum Learning objectives/goals	Assess DPT learners on their skills to assess, treat, manage, and educate patients with musculoskeletal concerns mid-way through the module and at the end.
Target audience	2nd year Doctor of Physical Therapy learners
Timeline	2 assessments conducted over school year 　First assessment scheduled in 3 months 　Second assessment is scheduled in 6 months
Safety concerns	Physical safety for the SPs when simulating musculoskeletal injuries. The Physical therapy faculty will train on stretches the SPs can do throughout the day. There are several breaks built in during the day.
2. Instructional method	
Consideration and Selection of the Human Simulation Application	Simulated Patient, Standardized Patient
3. Resources and logistics analysis	
Activity Overview	Musculoskeletal module. Total Number of Learners: 73 DPT Individual assessments 　1 station/1 case Learners will 　Participate in a simulation orientation in preparation for the exam 　Complete patient write-up after encounter 　Will work with 1 patient for the mid-term and 1 patient for final exam Both activities will be repeated each year
Faculty participation	Faculty will 　Observe and score the A/V exams remotely 　Provide written feedback 　Score the patient write-up
SPE preparation: Format the SP session	Timing and activity flow 　45 minutes with the patient 　Number of times in role: 5 per day 　Time between encounters: 10 minutes 　Two 15-minute Breaks 　20 minutes for the patient write-up for learners Checklists: 　20 minutes for completion of checklists by SPs Feedback: 　SPs will complete written feedback

Table 5.8 (continued)

Case – Scenario	New Cases required for this first implementation. Create a musculoskeletal case bank with several (6) cases for different injuries. Cases must be of equal difficulty These cases will rotate every year
Resources	What is needed for this session? Staffing: 6 SPs: each trained on different cases 3-hour training for each case/SP Recorded in the Human Simulation Center Budget Technology: recorded sessions
4. Decision making process Allied Healthcare Assessment (Fig. 5.13)	

Fig. 5.13 Decision making process nursing activity

Standardized patient
- YES: Because this is an assessment, the performance is required to be repeated and standardized for every learner.
- SP will be trained for specific behaviors, questions to be asked and responding to PT techniques.

Simulated patient
- MAYBE: Because this is an assessment, performance must be standardized. However, this activity has 1 SP per case - providing case details focusing on internal standardization can be an altenative. Moving the dial closer to Standardized Patient training

Role player & structured role player
- NO: Because the SP needs to portray the case repeatedly in a similar way for every learner.

Embedded participant
- NO: Because there does not need to be another healthcare provider in the room to guide the learner.

Summary: Porous Nature—The Human Simulation Continuum Boundaries are Permeable

Experienced Simulated Patient Educators (SPE) intuitively understand HS nuances and how to effectively move along The Human Simulation Continuum Model. They recognize the applicability and flexibility of the SP methodology whenever humans are involved in simulation and apply various approaches to adapt and work along The HS Continuum to prepare successful learner activities. Recognizing, learning, and adopting this approach will support SPEs in work at their home institutions, and in working collectively to establish a common language and practice in the broader field of SP Methodology.

We want to acknowledge and thanks SPE, Louise Schwercherdt (*Sefako Makgatho Health Sciences University*) for sharing her experiences and expertise

Appendix 5.1: Printable Guide for Human Simulation Applications

Suggestions when to Select a Human Simulation applications (see Fig. 5.1).

When to select the Role Player Application		When to Select the Structured Role Player Application
Learning Activities-no standardization	–	Some standardization needed
Demonstrations, presentations and workshops	–	Targeted coaching and remediation (different elements need to relate to each other – more structure; may build on role play)
To facilitate enhancement of learner communication skills (see Chap. 9)	–	If a few specific questions, cues or behaviors are required for the SP to ask/portray during the activity

When to select the Role Player Application	–	When to Select the Structured Role Player Application
When SPs are contributing to calibrations of emotional portrayals during new case development	–	When training SPs to provide feedback (e.g. to practice responding to different learner skills and communication styles)
For SP training (e.g. rehearse/pilot a case)	–	Activity objectives requires specialized skills including knowledge of cultural humility principles (i.e. non-verbal communication, language and specific cultural norms)
During recruitment to select SP Applicants	–	Faculty development workshops where more nuanced portrayal is necessary to teach learners who will be actively working with your human simulation programs (e.g. preceptors/facilitators)
One-time activity needing one SP (e.g. additional coaching/remediation for individual learner)	–	Provide learners with a range of (SP) patient stories that are all individuals with the same chief complaint and thus not standardized.
Activities where cases are based on SP own unique history/perspectives (i.e. diversity cases)	–	Assessments in Clinical Settings: Unannounced Patients

When to select the Embedded Participant Application	–	When to select the Simulated Patient Application
When it is appropriate for an SP to provide guidance in the scenario	–	When you can provide details in multiple aspects of the case content (history, PMH, FH, SH etc)
When you have an SP with healthcare background and cultural knowledge about related professions (e.g. if training for a nursing role, the SP understands the professional duties of a nurse and cultural knowledge of the nursing profession)	–	When increased calibration of the role portrayal within a single SP is important to meet educational and learning objectives
As a family member in the scenario	–	If you need pre-set responses based on the learner's questions
If you have SP/actors experienced in medical role-play [6]	–	Reproducibility and repeatability are required
–	–	Formative assessments, Clinical

When to select the Standardized Patient Application	–	When to select the Standardized Patient High Stakes Application
Any Assessments (formative or summative), including assessments with unnounced patients	–	Licensing or accreditation assessments
Sessions when standardization of multiple SP for the same case are required	–	Highest degree of standardization

When to select the Role Player Application	–	When to Select the Structured Role Player Application
Preset responses based on the learner's questions are required	–	Standardization between SPs and sites as needed
Preset standardized questions and challenges are required	–	–
High degree of reproducibility required	–	–

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Development of Scenario and Training Materials: Fundamentals, Interprofessional and Hybrid Scenarios, and Inclusion of Patients in Standardized Patient Methodology (in *Implementing Best Practices in Standardized Patient Methodology*)

6

Gail E. Furman and Jane Lindsay Miller

Abbreviations [1]

ASPE	Association of Standardized Patient Educators
EP	Embedded Participants
HS	Human Simulation
IPE	Interprofessional education
IPEC	Interprofessional Education Collaborative
IPSE	Interprofessional Simulation-based Education
LCME	Liaison Committee on Medical Education
MAC	Mid Atlantic Consortium
MCC	Medical Council of Canada (MCC).
NBOME	National Board of Osteopathic Medical Examiners
OB/GYN	Obstetrics and Gynecology
SME	Subject Matter Expert
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
USMLE	United States Medical Licensing Examination

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Introduction

The purpose of this chapter is to outline a step-by-step development process that will support you in creating, adapting and revising standardized patient (SP) scenarios for your program. We interviewed members of consortia who work together to develop cases to give readers an idea for going outside of a single institution for additional benefits.

Scenario Development

The scenario development process starts with the curriculum learning objectives, upon which the patients' story is based. All the scenario materials an SP Educator (SPE) needs to train the SP to authentically portray that story should include (but are not limited to); goals and learning objectives, level of the learner, patient story and content, supplemental learning resources obtained, researched and/or prepared by the SPE (e.g. video, illness story, timeline, moulage, props, setting, door instructions for learner), feedback or assessment tools and training guides (e.g. checklist, communication rubric or scale), and information about the administrative aspects of delivering the learning or assessment activity. Developing case materials and supporting documents is made easier with the use of a standardized template. Using a template helps to organize the details and standardize your approach. It helps the SPs learn a case quickly through using a familiar format.

With any educational endeavor, the first step is defining learning objectives for the activity specific to the level of the learner [3]. This aligns with the ASPE SOBPs 2.2.1 Clear goals and objectives that can be assessed and 2.2.2 Goals and objectives that specify the intended level of learners.

The Liaison Committee on Medical Education (LCME), the body who accredits MD programs in the US and Canada, requires as part of the accreditation standards:

…the medical school ensures that the learning objectives for each required learning experience (e.g., course, clerkship) are made known to all medical learners and those faculty, residents, and others with teaching and assessment responsibilities in those required experiences [4].

The LCME defines learning objectives as: A statement of the specific, observable, and measurable expected outcomes (i.e., what the medical learners will be able to do) of each specific component (e.g., course, module, clinical clerkship, rotation) of a medical education program that defines the content of the component and the assessment [4].

Each measurable learning objective describes the desired outcome (what the learner should do; e.g. take a medical history), the conditions under which the skill is performed (e.g. with a patient in a primary care setting), and, if the examination is a summative assessment, the level of competence required to pass (e.g. obtain 85% of the history items on a checklist). The level of competence may be adjusted depending on the level of learner, for example, expecting higher performance for more advanced learners. Well-written objectives ensure the scenarios being developed are relevant to the learner/assessment activity. Often, clinical faculty want to develop cases based on interesting patients they've seen in practice, without regard for the educational objectives. So, it is useful to encourage clinical faculty to continually bring the SP case focus back to the educational objectives to ensure the case complements and speaks to the intended curriculum. Typically, cases written for SP-based activities include objectives for history-taking, physical examination, patient education, communication skills, and clinical reasoning. More specifically, objectives may include practicing team-based care (working interprofessionally), or successful performance of technical procedures.

Tip SP availability is not a basis for developing cases; the educational objectives always guide case development.

Formative and Summative

Formative experiences foster knowledge acquisition, skills development, focus on providing feedback to the learner, and are designed to support behavior change in keeping with educational objectives and improve performance. While case development is not dramatically different between formative and summative activities, cases developed for summative

assessment—where the outcome of the evaluation determine pass/fail status, promotion to the next level, or licensure decisions—must contain the highest level of detail. Case materials will support the SPE in training the SPs to provide standardized performances and accurately score the instruments designed to collect performance data. If SPs provide verbal or written feedback, they require additional training to meet formative or summative objectives. (See Chaps. 7, 8 on Training SPs and 9 – Communication Training).

For the purposes of this chapter we will continue with traditional definitions and application of formative and summative activities when preparing scenarios. However, after reading Chap. 5 which introduces the Human Simulation Continuum Model, you may find yourself thinking more broadly of human simulation (HS) and when to apply them. Selecting the appropriate HS application will influence how you prepare SPs, modify accompanying materials and refine the case template.

Blueprinting

Like an architect's blueprint, developing the blueprint for formative experiences in a longitudinal curriculum or multistation SP encounters in a clinical skills summative assessment is the next important step to guide case development. A blueprint ensures a balanced sampling of cases across task domains (e.g. history-taking, physical examination, and communicating with patients) and criteria such as patient demographics, acuteness of the problem, and organ systems [5]. Using a blueprint prevents learners from seeing only one type of patient (e.g. multiple acute respiratory, geriatric patients, etc.). Because health professions trainees must learn to recognize and appropriately provide culturally competent health care, an important part of the blueprint is diversity in the patient population. Ideally, the blueprint should sample the kind of population the learners are expected to see in clinical practice. This means case materials and SPs should demonstrate diversity in age, ethnicity, gender identity, sexual orientation, race, religion, cognitive and physical abilities, and socioeconomic status [4]. (For more on cultural diversity see Chap. 10).

Formative cases can be designed in a longitudinal, scaffolded fashion throughout a course or clerkship, incorporating the learner's deeper understanding as they progress, and offer greater challenges once earlier challenges are mastered. The blueprint for formative activities skills progression takes into account this progression as seen in Fig. 6.1.

For formative simulation activities, the number of cases used should be sufficient to allow the learner exposure to the concepts to later be measured with the summative assessments, so that adequate feedback about areas to

Fig. 6.1 Sample station for skills progression

Sample station for skills progression

Objective: By the end of the course, the second year medical student will be able to demonstrate history-taking, focused physical examination, and communication skills.

SP is a 25 year old female with left lower abdominal pain.

Beginning of course	Quarter of the way through the course	Halfway through the course	End of the course
History-taking	History-taking	History-taking	History-taking
	Complete Physical Examination	Focused Physical examination	Focused Physical examination
		Answer questions	Answer questions; Counseling

improve is provided in advance of the summative assessment. In a summative clinical skills assessment, the number of stations impacts reliability of learner scores; generally, the higher the number of stations, the greater reliability of the examination [5–8]. The United States Medical Licensing Examination (USMLE), for example, consists of 12 stations. Health professions schools may be limited by the resources available such as fewer rooms or fewer available SPs and staff to run a larger exam. SPEs must balance the resources available with the realization that more stations usually provide a more reliable exam and resulting data set.

For the teaching and assessment of clinical reasoning in medical education, begin with two or three plausible diagnoses for the chief complaint, and build the case from there, aligning with the educational objectives. Avoiding single diagnosis cases allows the learner to develop and demonstrate their clinical reasoning skills by offering a differential diagnoses list after the encounter. For example, right lower quadrant pain in a young female could be appendicitis, ovarian torsion or ectopic pregnancy. The patient's story will need to be consistent with the diagnoses. (See Chap. 13 Expanding the Field of SP Methodology).

Process for Developing Content

The process for developing case content is similar for formative and summative experiences. Depending on your context, case development for an SP program for which there is a single full-time educator may necessitate a different approach to resources, versus a program in which there

are multiple SPEs. Years of experience show that many viewpoints contribute to better cases. Many academic institutions use a group approach for SP case development; however, context and resources will inform various approaches. These various approaches may include a committee approach and/or establishing a consortia and establishing a development team. However, one consistent requirement is collaboration with clinical faculty to develop the case content with the SPE.

One of this book's editors, Lou Clark, PhD, MFA, has worked as a consultant and for a variety of academic institutions, so we asked her about her approach in these various contexts:

Authors   *Lou, what has worked well for you in the past in terms of developing SP scenarios?*

Lou   I've found that beginning with a template in mind is ideal, but then I actually start by interviewing the subject matter expert (SME) or course director who is interested in working with our team.

Authors   *Why is interviewing helpful at this stage?*

Lou   First of all, sometimes we will chat for a few minutes and I will realize that an SP activity is not the best match for the learning goals and objectives. If this is the case, I recommend other options and we do not proceed which saves everyone time and money. So, rather than jumping right into a canned event template noting learner demographics, event details, etc., I find it more useful to begin by asking some open-ended questions such as: what are your educational objectives, what are you hoping your learners will get out of this

event? And, how will working with SPs benefit your learners versus other educational methods? If it seems SPs are a good match, then I generally continue the chat and complete an event template in a more organic style—not necessarily from top to bottom but fill it in as details come up. Using this approach enables me to listen for what is most important to the SME, and then to ask follow-up questions to check details when needed. This approach also feels more natural to me, and I actually find it models the communication skills we are encouraging in our learners including asking open-ended questions, listening, and using closed-ended questions to check details—letting the conversation unfold in an improvisational way rather than as a rote checklist.

Authors   *Makes sense, but this approach may not be comfortable for all SPEs. What are your thoughts on that?*

Lou   I agree and as with many aspects of SPE work, there is not one accepted practice. I think each SPE should explore all available resources, and then decide for themselves.

Authors   *What do you do next?*

Lou   This depends on the available resources. If I am the only SPE on the project, I will continue to develop the case with the initiating faculty and encourage him or her to involve at least one other clinician to gain multiple perspectives. If I am a part of, or leading a team, I will look to the expertise within the team and ask an SPE who is best suited to training this case. We will ask the SME who else on their team could contribute to the scenario, and then all work together to write the necessary medical information into the case. Then, we will generally complete the case anticipating the types of questions SPs would ask in training about things like medical jargon and who this patient is as a person, (e.g. home life, educational background, hobbies, etc.). If an SPE on the team has been an SP we will often not involve an SP at this stage. If not, we will try to recruit an SP to get their perspectives. If the case is designed to highlight health concerns related to an underrepresented group, it is of the utmost important to involve a member of that group in your case writing.

Authors   *Can you give us an example?*

Lou   If you are writing a case in which the learning objectives are about health concerns specific to transgender people, it is best to involve a person who identifies as transgender in the case development process.

Authors   *What next?*

Lou   When you are working with the same course director to develop multiple cases and if they are the one always providing information on who the patient is as a person, there is a risk that all of this background information will be similar because it is informed by a single person with a single background. In order to promote diversity within your SP program and the courses and programs it serves, it is crucial to have multiple perspectives—including SP input—into case development. Due to this I will not simply email the SP case template to the SME and ask them to complete it and email it back. If possible, I always encourage a 1-hour meeting in which I or another SPE sits at the keyboard and types into the template while we continue the initial interview with the SME and other clinicians. This way, the conversation becomes a shared creation of the case which we will then go on to pilot. This hour meeting generally saves time by anticipating questions that would have come up in SP training, ensures diversity is built in from the beginning rather than as an afterthought, and enables us to maximize SP training time in other ways.

Authors   *Thanks Lou, We appreciate you sharing your experience and expertise.*

A committee approach for developing case content for licensure is used by the USMLE, National Board of Osteopathic Medical Examiners (NBOME) and the Medical Council of Canada (MCC) [6]. For the USMLE, a case development group consists of 3–4 physicians, 2 SPEs, and a case developer who is charged with capturing the discussion and completing the case materials after the meeting, as well as experts in the scoring instruments used (patient notes and communication skills scales) and an SP. To avoid one person's medical opinion with regard to the best approach to a case, it is optimal that multiple clinicians should give input, preferably from varied specialties. In addition to the clinicians, as noted above, the SPEs and SP contribute. SPs may also be partners during the development process to briefly demonstrate aspects of the case for the clinicians. A first year post graduate physician is available to role play with the SP immediately after the case is developed while the committee observes, in order to make changes before the case goes further into development. While such a large group may seem beyond the resources of

most schools, at the very least, more than one clinician, an SP, and an SPE should be involved in the process. The case writing group at the institution should mark out regularly scheduled time to work on developing cases to add to the case bank for formative and summative uses. This will help the group hone skills needed to continue to work as a team. There is also the practical benefit that cases may be alternated by class of learners so learners may not pass down curricular information from class to class.

Higher level learners can be used to rehearse or test out the case during development and for piloting. Piloting involves running the case with someone similar to the learners who will be using it (e.g. 4th year learners for cases intended for 3rd year learners; first year residents for cases intended for 4th year learners). Ideally every case should be piloted, but sometimes it is not feasible. If the case cannot be piloted separately, insert the case into the live exam as an unscored station for data collection purposes (learners should not be aware it is not scored until after the examination). Piloting cases uncovers flaws that can be corrected such as unforeseen diagnoses identified by the learners, missing information from the case materials, or SP portrayal challenges.

Tip Revisions can be made based on the data collected by the pilot. Case development is an iterative process.

Another approach to maximizing resources is forming consortia with other programs to develop and share scenario materials. We interviewed Win May, MD, PhD, Professor in the Division of Medical Education, Department of Pediatrics, and the Director of the Standardized Patient Program in the Keck School of Medicine. The Keck School of Medicine is a member of the California Consortium.

Authors   *Could you please describe the organization of the consortium. Which schools belong and when did it start?*

Dr. May   The Consortium consists of the eight allopathic medical schools in California. The Consortium began in the 1990s, when the Macy Foundation awarded grants to support six consortia of US medical schools to develop and implement a SP Clinical Performance Examination. This Consortium was one of them and is the "lone survivor." It started as the Southern California Consortium for the Assessment of Clinical Competence, with the five southern California medical schools. The Northern California schools joined later in the early 2000s.

The Consortium has four Committees: Executive Committee, Research Committee, Finance Committee and the Trainers Committee.

Authors   *What resources are shared?*

Dr. May   All cases, training materials and checklists are shared as well as training videos.

Authors   *How does scenario development work for the consortium?*

Dr. May   There is a primary school and a secondary school for each case that is developed. The primary school is responsible for the case development. Once that is done, the case will be sent to the secondary school, for comments and suggestions. The completed case is presented at a Consortium meeting, where there is always lively discussion of the training materials and checklists.

Authors   *What are some of the strengths of taking part in a consortium?*

Dr. May   Strengths: (a) the ability to share and discuss training materials, checklists and videos is huge. We can bounce our ideas off one another, and get feedback from both clinician and trainer (SPE) perspectives; (b) All school data are collated and analyzed by a psychometrician, so we can see how our learners are performing, as well as how the case itself is doing; (c) There is a SPE meeting every year, where we can discuss issues and problems encountered when training the cases, and how to deal with them.

Authors   *What should folks thinking about starting a consortium need to know?*

Dr. May   It is such a worthwhile endeavor, and you will need to have members who are committed to the success of the Consortium.

The Mid Atlantic Consortium (MAC) is comprised of the SPEs at Clinical Skills and Simulation Centers representing several medical schools in the Mid-Atlantic region of the US. Collaboration arose in the mid-1990s from the Macy Foundation's support of several early consortia. Originally called the Baltimore/Washington Consortium, the group consisted of George Washington, Georgetown, Howard, Johns Hopkins, Uniformed Services University of the Health Sciences, and the University of Maryland. In 2009, the consortium was renamed the Mid Atlantic Consortium.

The purpose of the MAC is to foster collaboration among centers and universities in the consortium. Karen Lewis, PhD, CHSE, Administrative Director of the CLASS Center

Table 6.1 Mid Atlantic consortium

Mid Atlantic Consortium	
Resources Shared	Hosting meetings Cost of statistical analysis of annual data Training resources Leadership responsibilities Case development
Case Development	MAC members meet each year to select which cases to repeat and to determine how many new cases to try. Case selection is based on statistical analysis and clerkship representation. MAC members offer new cases to try (either existing cases their institution has already created or new cases they agree to write) based on the needs identified for the exam, and members vote on which new cases to add. After case selection for the next exam, repeating and/or new cases will be piloted with one SP and several slightly advanced learners, after which the observing MAC members will refine and finalize the case(s). Final versions of all shared cases are uploaded to a shared, secure page prior to the start date of the first school conducting its exam.
Strengths	Enables sharing and learning about research, administration, case development, and training. Provides a wealth of data for research. Offers a shared case bank. Offers tool validation and sharing of information (could help with LCME). Extends opportunities for contributions to scholarly work. Provides people familiar with your work outside your institution, which is required for CHSE certification. Offers opportunities for shared knowledge that could help with center certification. Leadership opportunities.
Challenges	Finding meeting times for the face-to-face meetings when most members can be there. Reaching consensus on checklist items and governance issues can sometimes be tricky. Sometimes members forget/don't follow the protocols/agreed upon steps. For Baltimore/Washington schools, SPs are in high demand during exam season. Each school holds the exam at a time best for them, but the SPs could be needed at the same time by other schools for other projects.
Words of Wisdom	It might seem easier than doing the work on your own, but it takes a lot of effort even when everyone is fully committed. Members need to agree on goals and come to consensus on policies and procedures and membership. Members need to want to be a part of the consortium and believe in the benefits of working together or it won't work.

and SP Program Director at the George Washington School of Medicine and Health Sciences provided information about the MAC, summarized in Table 6.1.

Using a Template for Scenario Development

Now that you have developed your objectives and blueprint and we have learned about sharing resources versus single institution scenario development, we will focus on developing your case within a template. To illustrate how a template works, the ASPE development template will be used to explain the various parts of a scenario [2]. Developing scenario materials and supporting documents is made easier with the use of a standardized template.

Using a template helps to organize the details and standardize your approach to the activity. Once introduced, it also helps all the stakeholders in the educational activity to fully understand what is needed for an SP activity and to help them consistently prepare quality cases. Another benefit in using a standardized template is SPs learn a case quickly through using a familiar format. Please note that there is not a single accepted template SPEs must use, but in this chapter,

we are intentionally highlighting the ASPE template because it is available through the professional association website and used by many SPEs. Also, of note, the sample case provided is for a summative assessment event. Other case examples for formative activities are provided throughout this book, (see Chaps. 9 Communication Training and 13 Expanding the Field). Below are the 10 parts of the ASPE case template used to develop a case:

- **Part 1 – Administrative Details**
- **Part 2 – Door Chart/Note & Learner Instruction**
- **Part 3 – Content for SPs**
- **Part 4 – SP Checklist**
- **Part 5 – Checklist Guidelines**
- **Part 6 – Additional Materials**
- **Part 7 – Post-Encounter Activities**
- **Part 8 – Note Rubric or Answer Key for Post-Encounter Activities**
- **Part 9 – Briefing/Learner Orientation**
- **Part 10 - Debriefing**

Many versions of comprehensive templates for case development exist in the literature and on the web. The orga-

nization of the content and the number of details may vary, but for learning and assessment activities, the template should be as complete as possible so that all relevant material needed for developing, training for portrayal, scoring and delivering feedback, piloting, and implementing a case are included. Use of a standardized template will make subsequent cases easier to develop and to include all necessary information, and will help to fulfill ASPE SOBPs:

- 2.2.3 Simulation design that meets the purpose.
- 2.2.4 Simulation design that is repeatable.
- 2.2.5 Information for SPs (e.g., situation and backstory, history, affect and demeanor, signs and symptoms to simulate, cues).
- 2.2.6 Training resources (e.g., props, moulage, videos, task trainer).
- 2.2.11 Data for managing the documents and recruiting SPs (e.g., author information, date of development, patient demographics, body type criteria).

You are encouraged to think of this template (and others) as a guide that will require modification to suit the resources and constraints found at individual institutions and the HS application selected. Additionally, templates may be reorganized to suit the flow of the activity planned.

Part 1: Administrative Details

It is critical to document administrative/logistical details necessary for the smooth implementation of learning or assessment activities as part of the case. Such "behind the scenes" information includes the objectives and purpose for the activity, the level of the learner being assessed (including any prerequisites for the activity such as a completion of a clerkship or other classes), recruiting demographics for the SPs (age range, gender, BMI, etc.), and other considerations such as props needed for realism or other necessary simulation equipment. Providing detailed documentation as part of each case will ensure that SPEs understand how to interpret the case and create an event that accurately conveys and addresses the educational objectives being taught or measured.

Administrative details in the ASPE template include the case SP name (avoid the use of humor or distracting information), reason for the visit to the health care provider, and chief complaint (which may be the same as the reason for the visit). It also includes the differential diagnoses as well as the actual diagnosis, (if there is one). If formative feedback is part of the scenario, feedback prompts specified by faculty and/or SPEs should be included (see Chap. 9 – Communication Training). If the case is used to assess clinical reasoning, it should be written so that more than one diagnosis is possible so that learners demonstrate reasons for listing the various diagnoses. The faculty must consider what information from the case would support each of diagnoses on the differential.

Logistical details that impact curriculum including a single faculty contact, assessment instruments, training agendas, and further instructions for additional staff are also critical to include with the case. Although we recommend a committee approach to developing cases for the best outcome, an individual clinician should be assigned to each case so that SPEs can contact one person (rather than the entire committee) regarding questions that arise during training, piloting the case, or on the day of the activity. A list of assessment instruments required (e.g. SP checklist, communication rubric or scale, post-encounter note, quiz) is helpful to use for staff setting up the simulation event so that all required parts of the activity are in place. Without a list, SPEs and staff must guess what faculty intended, which can lead to confusion for all involved including the learners. A recommended training agenda will be covered in another chapter; however, a summary of the amount of training needed (usually between 1 and 2 training sessions for formative activities and 2–4 training sessions for a summative assessment activity if resources permit) and the times and dates for those sessions should be documented for the SPE and SP. [9] If additional materials for training are needed, these should also be listed. Examples include physical diagnosis videotapes for training SPs to score accepted PE maneuvers; textbooks demonstrating anatomy for training responses to the physical examination, or example videos from SPs who played the case previously. These materials are also helpful for training SPs on scenario components including affect, communication skills assessment, and providing verbal feedback to learners. It is also important that SPs are open to and incorporate any case changes and feedback changes since last usage, which should be highlighted when utilizing video from previous events for training purposes. Instructions for additional staff: (e.g. simulation technician, proctor, simulation educator) clarify the role expectations and make explicit the tasks assigned to each staff member.

Part 1 – Administrative Details (Sample)

Patient (SP) Name:

Tanya Clarke

Patient's Reason for the Visit (e.g. why is the patient coming to the doctor today?)**:**

Left lower quadrant pain

Patient's Chief complaint:

I have a terrible pain in my lower stomach.

Differential Diagnosis:

- Ovarian torsion
- Pelvic inflammatory disease
- Ectopic pregnancy

Actual Diagnosis:

Not applicable

Case Purpose or Goal: (e.g. formative, summative, teaching, learner practice, assessment,   lecture, demonstration)

Summative end-of-clerkship assessment

Level of the learner and discipline: (e.g. 3rd year Nursing Learner)

Third year medical learner

Learner's prerequisite knowledge and skills:

Successful completion of OB/GYN, Family Medicine, and Internal Medicine clerkships.

Case authors:

- Dan Nasser, MD – Internal Medicine
- Janine Howard, MD, MPH - OBGYN
- Pat Sintak, DO – Family Medicine
- Sandy Burgess, PhD, CHSE – Simulation Center Director
- Jaquelyn Nelson, MS – Standardized Patient Educator

Date of case development:

May 10, 2019

Summary of patient story:

The patient is a 21-year-old college learner with sudden onset of severe left lower abdominal pain. She experienced nausea and vomiting of undigested lunch yesterday and awoke last night with the pain. She reports feeling warm. Last menstrual period was 6 weeks ago. She reports a vaginal discharge of a week's duration.

Learning/Case objectives:

Given a 15 minute encounter with an SP, a third year medical learner will:
- Elicit >75% of the focused medical history checklist items;
- Correctly perform >75% of the focused physical examination checklist items
- Receive a pass score (>80%) on the Communication Skills checklist list.

List of assessment instruments used: (e.g. SP checklist, post-encounter notes, quiz)

- Medical history checklist and guide to the checklist
- Physical examination checklist and guide to the checklist
- Communication skills checklist and rubric

Event format: (e.g. formative, summative, small group, individual, multi-station assessment, duration)

Summative end-of-third year 10 station assessment. This is a 15 minute patient encounter station.

Demographics of patient/recruitment guidelines: (e.g. age range, gender, body type, ethnicity, other)

- 21-year-old(18-25)
- Height and weight proportionate (BMI 26-30)
- Any ethnicity
- No abdominal scars or abnormalities

List of special supplies needed for encounter: (e.g. additional materials *see part 6*, moulage, props, SP attire, physical exam equipment, etc.)

Not applicable

Recommended SP training agenda:

Routine summative assessment training (3 sessions and a mock examination).

SP Training materials needed: (e.g. documents, video, physical exam equipment, references, images, websites)

- Case training documents
- Physical examination training videos (abdominal examination)
- Communication Skills rubric and videos
- Affect training video (pain response with palpation)

Instructions for additional staff: (e.g. sim tech, proctor, sim educator)

Not applicable

Part 2: Door Chart/Note and Learner Instruction

Expectations for SP-based activities should not be a guessing game for the learner. Clear, unambiguous instructions are needed for each case, so the learner knows what to expect, and what is expected. Enough information about the patient should be provided so the learner can be prepared before entering the room. Doorway information should include the setting (place and time), the patient's name, age, gender, and chief complaint. Frequently, vital signs are provided (including pulse oximetry, if desired). Depending on the case, lab or imaging results may be included. In addition to information about the patient and his/her condition, instructions about the expectations of the learner should include the tasks to be completed (e.g. elicit an appropriate history, conduct a focused physical exam) and the length of the encounter (10 minutes, 20 minutes, 30 minutes, etc.). Also indicate if a case task involves a series of complex communication skills such as counseling or motivational interviewing.

Part 2 – Door Chart/Note & Learner Instruction (Sample)

Setting (place/time)

Ambulatory Care Clinic

Patient Name: Tanya Clarke
Age: 21
Gender: Female
Chief Complaint: Left lower abdominal pain

Vital Signs: (if applicable)
Blood Pressure: 100/60
Temperature: 99 F
Respiratory Rate: 14
Heart Rate: 70
Pulse Oximetry: 99%

Instructions to Learners:
You have 15 minutes to:

- Take an appropriate history

- Conduct a focused physical examination (no breast, genitalia, or rectal examinations).

- Demonstrate effective patient centered communication skills.

Part 3: Content for SPs

The content for the SPs is the essential training material needed to standardize portrayal across your program, and, if applicable, multiple centers and learners. Also, in the case of formative activities, content for the SPs may provide direction on providing standardized feedback to learners on their performance (see Chap. 9 Communication Training). In addition to the expected medical information including the history of present illness, past medical history, family history, and social history, review of symptoms and other symptoms, aggravating and alleviating factors, and responses to physical examination maneuvers, the SPE and the SP need to know about the background and personality of the patient being portrayed and how to respond to questions about psychosocial aspects [11]. The material must contain details about how the SP should respond to jargon and how to disclose information (i.e. what is volunteered or specifically asked for and responses to multiple questions). Specific verbiage that must be memorized such as the opening statement/line and standard challenges that will be presented to each learner must be stated clearly.

Since teaching about communication skills includes the frequent use of open-ended questions, SPs need responses to these in order to demonstrate that SPs are portraying fully developed patient characters that will share more if learners are curious and show interest in their lives. Ideally, SPEs should include SPs in crafting responses to open-ended questions during training that are appropriate to the medical details and background information provided in the case (see Chap. 8 Ten Step Training framework). SPs will often think of natural and creative responses to open-ended questions from the portrayal or performer perspective because they are preparing to bring the case to life. In response to "tell me more," the SP should not be left to say, "What do you want to know?" The unintended consequence of this will be learners using a "shotgun" approach to history-taking, asking lots of closed, focused questions.

The case content for the SP should be written from the SP's point of view to help the SP to learn the role (e.g. "I felt the headache come on about an hour ago" vs "your headache started an hour ago"). The language used should be comparable to the vocabulary the patient would use, (e.g. free of medical jargon and in keeping with their education level, personality, and communication preferences). This is an area where SPs and SPEs can make a big impact while working with clinicians, acting as "translators" from "medical-speak" and in providing suggestions as to how patient characters would sound and what they might say.

The content for the SPs should be geared toward providing stimuli for the objectives being assessed. In other words, if part of the construct being evaluated is empathy, the case should provide the SP with emotional material to facilitate providing learners with opportunities to demonstrate empathy toward the patient. This should be trained so that each SP provides each learner with the opportunity to demonstrate empathy— in a standardized fashion during each encounter. It is important to note that standardizing emotional responses from SPs does not imply generating the same exact expressions or tone of voice for each learner, but rather providing authentic responses rooted in who the patient is (see Chap. 9 Communication Training).

An important consideration is the ability of the SP to maintain the affect and behavior required for the period of time needed for the assessment. For example, playing a very anxious person or a depressed person for the course of the day can be extremely taxing physically and psychologically, as would simulating some conditions like shortness of breath. (See Chaps. 7, 8 Training SPs and 9 Communication Training). However, SPEs must appreciate why it is important to consider SP training, the impact on the SP, and the educational objectives when creating case content.

Tips for Scenario Development

Some helpful hints when developing scenario materials include:

- Matching the learning objectives to the case. For example, a case involving acute onset abdominal pain may not provide the material for assessing the examinee's ability to perform a neurological examination.
- Consider the time required for the examinee to complete the expected tasks. A complete, thorough neurological examination and history cannot be performed by a novice health professions learner in 10 or 15 minutes. Enough time must be allotted for the tasks being assessed.
- SP responses and portrayal must be realistic. This means that cases must be written to be believable to aid the learner in more fully experiencing the SP encounter as they would a clinic or hospital patient encounter. Write the case from the patient's perspective and how the patient would use medical terms. The use of formal language from pediatric or adolescent patients, or use of the term "fatigue" to describe tiredness or "radiate" to describe pain moving to another body part in a patient with low health literacy detracts from the realism of the experience, and may result in a negative impact to the learner's performance.
- Include some diversity in the SP's story. Not every patient drinks only a glass of wine on special occasions or is in a 25-year monogamous marriage. Likewise, avoid stereotypes like unmarried elderly librarians with cats.
- Balance the psychosocial information to provide enough detail to answer most common questions, without overwhelming the SP with too much minutiae that may never come out in the encounter. The cognitive load on the SP should be considered, particularly if they are expected to memorize a checklist for scoring purposes. Also, consider that SPs enjoy engaging in the training process as creative and may, if appropriate, help co-write their own patient character details outside of the realm of the medical information or any informative relevant to the checklist(s).
- Adjust the timeline for various times of day. Cases such as abdominal pain that comes on suddenly after a meal will need details for various timing throughout the day. The information provided to the SP should not hinge on a single meal that might be 12 hours removed. Learners should not be asked to "pretend" that it's a different time of day than it really is; learners may struggle with pretending to adhere to case details such as time of day that are variable, and cases should be made as realistic as possible to address this problem.

Part 3–Content for SPs (Sample)

Presentation and Resulting Behaviors (e.g. body language, non-verbal communication, verbal characteristics):

I am Tanya Clarke, a 21-year-old college junior. I am in terrible pain, and I don't deal with pain very well. I am laying on my right side in a fetal position, holding my lower stomach area with my arms across my body (see video example). It hurts to move, so I do it slowly (if asked) and moan softly once. If asked to lie on my back, I keep my knees bent, and I return to my right side when the doctor is finished.

I am frowning because it hurts so badly. I answer questions as briefly as possibly, but I am cooperative and answer each question asked. My voice is a bit whiny because I am in pain. My eye contact is natural.

Opening Statement

"My stomach is killing me!"

Dealing with Open-Ended Questions and Guidelines for Disclosure

- Response to open questions:
  - This pain woke me up last night.
  - I've never had pain this bad before.

- Information hidden until asked directly (what the patient should withhold until specific questioning):
  - My last period was 6 weeks ago.
  - I've had a discharge from down there for about 2 days.

History of Present Illness (HPI): (consider the following)

Quality/Character: It's a sharp, stabbing pain that's always there.

Onset: It woke me up last night when I was sleeping.

Duration: It's been hurting since last night, but it feels like it's been getting worse.

Location: It's right here in my lower stomach (NOTE: left lower quadrant)

Radiation: The pain doesn't go anywhere;it just stays right there.

Intensity: This is the worst pain I've ever had. IF ASKED: it's an 8 or 9 on a scale of 1 to 10.

Aggravating Factors (what makes it worse): It's worse if I move around

Alleviating Factors (what makes it better): Lying as still as possible.

Precipitating Factors (does anything seem to bring it on): I don't know what brought it on.

Associated Symptoms: I felt sick to my stomach and threw up after lunch yesterday.

Significance to Patient (impact on patient's life, patient's beliefs about origin of problem, underlying concerns/fears, expectations for the visit): I wasn't able to go to class today, and I had a friend drop me off because I didn't think I could drive. I'm scared the pain is going to get worse.

I think this may have something to do with my periods; it's due any minute, and maybe it's just a really bad one.

Review of Systems: (e.g. pertinent positives and negatives)

- I feel warm, but I haven't taken my temperature.
- I've had a discharge from down there for about 2 days. It's kind of smelly and thick.

Past Medical History (PMH): (consider the following)

Illnesses/Injuries: None
Hospitalizations: None
Surgical History: None
Screening/Preventive (if relevant): My last Pap smear was about a year ago. I try to see the gynecologist every year.
Medications (Prescription, Over the Counter, Supplements): Advil for cramps during my period.
Allergies (e.g. environmental, food, medication and reaction): None
Gynecologic History (if relevant): I started my periods when I was 13. They've always been irregular, coming anywhere from 4 to 6 weeks apart, lasting from 3 to 5 days. My last period was 6 weeks ago. I get cramps for the first day,but I take Advil and that helps.

Family Medical History: (consider the following)

Family tree (e.g. health status, age, cause of death for appropriate family members) My mom and dad are healthy. I'm an only child.
Relevant Conditions/Chronic Diseases (management/treatment): None

Social History:

Substance Use (past and present)
 	
    Drug Use (Recreational and medications prescribed to other people) : I've tried marijuana before, but I don't smoke it regularly. It makes me sleepy and hungry and I don't like it that much. I can't even remember the last time I smoked it. My friends aren't into it.
 	
    Tobacco Use: I've never smoked cigarettes.
 	
    Alcohol Use: I drink beer or white wine at parties but never more than 2. I don't like feeling drunk. I don't understand why people do that!

Home Environment: I live an apartment with 3 other students. We all get along and help each other out with the chores and homework. I can rely on my roommates if I need anything. My mom and dad have worked hard all their lives and are excited that I'm the first in the family to go to college. Mom's an administrative assistant and dad is a truck driver. They are very proud of me and supportive, but I do feel some stress to do well and get good grades. I don't want to waste this opportunity that they never had.
Social Supports: My mom and dad live 3 hours away. I go to see them whenever I get a break from school.
Occupation: I'm a full-time junior majoring in psychology. I work part time on the weekends at the college bookstore. I'd like to take a year off to work and save money when I graduate so I can go to graduate school for a master's degree.

Relationship Status

> **Current sexual partners (if relevant)**: I've been having sex with my boyfriend for about a year. He's also a student, and lives in a frat house on campus. It's hard to get any alone time together between school, work, and other activities (and our roommates!). We try to use condoms every time (but sometimes we don't). He's my only partner (I believe I'm his only partner, too). We last had sex last weekend.
>
> **Lifetime sexual partners (if relevant)**: My boyfriend in high school was my first partner and the only other partner I've had.
>
> **Safety in relationship (if relevant)**: I feel safe with my boyfriend. He's very smart and is a theater major. He's a really great actor.

Leisure Activities: I like to play tennis and go to plays with my boyfriend. My roommates and I like to hang out together, watching TV and movies.

Diet: I try to eat healthy, lots of salads, but I enjoy hamburgers and fried chicken occasionally.

Exercise: I like to play tennis, and I go to the college gym to take fitness classes like kickboxing and yoga.

Physical Exam Findings: (may also include instructions on replicating findings)

- When the doctor taps or presses on my left lower stomach, I tighten my stomach muscles and say, "that really hurts!"
- When the doctor presses on my left lower stomach, and suddenly let's go, it hurts more when she presses than when she lets go (the release does NOT hurt more than the pressing).

Prompts and Special Instructions:

Questions the patient MUST ask/ Statements patient must make: What should I tell my mom when I call her?

Questions the patient will ask if given the opportunity: Can you give me something for the pain? If the doctor tells me I can't have anything right now, I'll sigh audibly.

What should the patient expect from this visit? I want to find out what is going on. I expect they'll give me something for the pain, and I'll be just fine.

If the doctor tells me I have to be hospitalized, I will say, "Oh, no! I have to call my mom! And I need to tell my roommates."

If the doctor tells me it may be a pregnancy, I will say, "This can't be happening to me now! I can't have a baby! I feel like I'm too young to have a baby, and my boyfriend and I aren't serious enough to get married. I don't know if I can handle the responsibilities. What will I tell my parents? They will be so disappointed in me."

Guidelines for Feedback: (e.g. logistics, content for feedback)

Not applicable

Part 4: SP Assessment Instruments (Checklists)

The following applies to ASPE SOBP 2.2.9 Evaluation instruments and performance measures (e.g., checklists and rating scales, participant and facilitator evaluations).

The key element to SP-based assessment is checklist design, which should be based on educational objectives. Checklist items must be clear and unambiguous, stated in terms easy for raters to understand and to recognize, especially if SPs are completing the checklists. The tasks should be listed in a logical sequence from start to finish. Too many, too few, or nonessential items may produce scores which are meaningless in assessing clinical competence on a particular case. A classic article by Vu et al. [12] showed that increasing the number of checklist items adversely affects the accuracy of SP recordings and suggests limiting the checklist to between 15 and 20 items [10].

As with developing the case itself, it's imperative that checklists be developed and reviewed by other faculty. Checklist items must be evidence-based to avoid items based on "tradition" or personal favorites of individual faculty. For example, standing on the right side of the bed or percussing the heart borders may be something some clinicians still do, but have little evidence to support the appearance on a checklist. Texts such as Magee's *Evidence Based Physical Diagnosis* or JAMA's *Rational Clinical Examination* are useful references for developing checklists [13, 14].

Checklists may be dichotomously scored, such as "yes/no" or "done/not done" or "asked/not asked." For more detailed feedback, particularly with physical examination maneuvers, letting the learner know when they did attempt a maneuver but failed to execute it effectively provides important information for remediation more than "done/attempted/not done".

Many physical examination items will be used repeatedly for developing future cases. In order to standardize checklist items across cases, it's helpful to develop a database of physical examination maneuver items. These items can then be reused and distributed to all teaching faculty and learners so there is transparency about what will be assessed. Another approach is to standardize checklists across types of cases, so there is congruency with what is expected by the learners.

With regard to how the raters complete the checklist, we often think of SPs memorizing what happens in the encounter and completing the checklist afterward, but also consider the idea of a "real time" observer (e.g. faculty member, preceptor, or subject matter expert), or someone who will watch a videotape later on to complete the checklist.

Tips for better checklists include:

- Items should be behaviorally focused (describe the examinee's actions). If items aren't behaviorally focused, they are not observable for the SP or rater, and therefore make the rater's job impossible. If you can't make an item observable, the checklist becomes more about the rater's opinion than the learner's performance. The construct "empathy" is a good example. What does empathy look like? An item like "displayed empathy" leaves it up to the rater's judgement; however, with training, a rater could recognize the item "made an empathic statement." Professionalism is another construct that means different things to different raters, for example, was the learner's white coat clean, did they wear sneakers, did they introduce themselves as a learner? Each behavioral aspect to be assessed needs to be defined in order to minimize bias and subjectivity from raters.
- Items should contain only one task. Lumping two or more tasks into one item makes scoring difficult for any rater who is completing the checklist. For example, if the item is "checked my pulse and my blood pressure" but the learner only does one of these; how is this scored? It also makes it difficult to analyze performance data (did the learner forget to check the pulse or did they forget the blood pressure?).
- Items should only include physical examination maneuvers raters can observe.
- For example, checking respiration can be done discreetly by a learner, so raters may miss this. Unless the learner is doing something concrete that the rater can witness, it should not be a checklist item. Also, it is vital SPEs ensure camera placement in their simulation center is optimal to capture all observable checklist behaviors. For this reason, is important to check the cameras prior to each simulation activity.
- Items in the scoring instrument should not be answered or addressed in the pre-brief, orientation, or any information provided to learners prior to starting the simulation. Learners are less likely to verify or demonstrate content that has been provided. For example, if you want the learner to take the blood pressure, do not put the blood pressure reading on the doorway instructions. If you want the learner to find out about the onset of the problem, do not put that the pain started yesterday on the doorway instructions.

Part 5: Assessment Instruments Guidelines

The following applies to APE SOBP 2.2.10 Training protocols for raters (SP or other).

Assessment instruments are an essential component of scenario development, and SPs and other raters need to be thoroughly trained to complete all assessment instruments. Approaches to training will be covered in other chapters, but the need for rater training cannot be over emphasized. Some have the false belief that because the faculty member is a healthcare professional, no preparation or training for scoring is needed, as these individuals can rely on "expert judgement." Healthcare professionals and SPs are first human, with all the unconscious bias and personal preference any person has. Those who expect faculty members to arrive to an assessment without prior preparation for accurate scoring will not be able to rely on the resulting scores. Everyone rating the performance of learners (whether a faculty member or an SP) need thorough training in the use of the assessment instruments including familiarity with the guide to these instruments.

The purpose of assessment guidelines is to make explicit what actions on the part of the learner will receive credit by the SP or other rater. In doing so, one hopes to address any potential problems affecting interrater reliability, including personal bias. In other words, two raters looking at the same learner behavior need to be trained to rate the behavior in the same way. Therefore, creating clear assessment instruments (e.g. checklists or other rubrics) is an essential part of scenario development.

One approach to creating checklist guidelines is to approach each item thinking of as many ways as possible a learner could receive credit for the item. For example, the educational objective is "The learner will demonstrate the ability to ask a patient about sexual activity." The checklist item, if scored by the SP, is written in lay language, and the guide to the checklist gives examples of questions learners could ask that would receive credit for the checklist item.

1. I have sex with my husband. (Checklist item written in lay language)
   - Are you sexually active?
   - Do you have sex with men, women or both?
   - How many partners do you have?

The three examples above are intended as just that; examples, not as an all-inclusive list. It is impossible to think of all the novel ways learners come up with questions but list-

ing a few gives the rater an idea of what should receive credit.

For physical examination checklists, each item needs a thorough explanation as to what would constitute an observed behavior. Palpation of the liver may have many approaches, and each need to be listed in the guide to avoid penalizing learners who may use a different yet acceptable maneuver. Although time-consuming up front, the development of a physical examination database containing all acceptable approaches to each part of a complete physical examination can be used for teaching, self-study, and assessment. Commercially available videotapes or institutionally made ones can be used to supplement the text for each maneuver.

Part 6: Additional Materials

Standardized patient cases can be supplemented by additional materials such as previous health records, X-rays, lab results, lists of medication, or photographs. Some institutions use cards to list abnormal findings such as high or low blood pressure (these cards can be handed to the examinee after the blood pressure is taken). These materials should be listed on the case template so that the SPE responsible for setting up the assessment knows to include them.

Part 7: Post-encounter Activities

It is important to include any post-encounter learner activities in the scenario development process. These activities may include writing a patient note, ordering labs or imaging, or answering multiple-choice questions. In addition to supplementing the assessment of the encounter, these additional learner activities enable SPs to complete assessment instruments during the same timeframe. For formative activities, the post-encounter learner activity may be a written reflection, or a debriefing or feedback session conducted by the SP, SPE, or faculty member.

Currently, the USMLE Step 2 examination requires a typed patient note after each standardized patient encounter. The note consists of data gathering (listing history and physical findings from the encounter) and data interpretation (listing the differential diagnoses in order of likelihood, with support from the history and physical findings and listing any tests for follow-up, if indicated). Examinees have 10 minutes to complete the note. Examples can be found at the USMLE website [15].

Part 8: Note Rubric or Answer Key for Post-encounter Activities

Similar to the guide to the checklist, any post-encounter activity requires a rubric, or answer key, for those responsible for scoring. The committee drafting the scenario materials will need to spend time ensuring the key for scoring is clearly written and unambiguous. For example, using the sample format provided by the USMLE on the website, the committee would complete the rubric for each case by including the answers expected for each section of the post-encounter note (e.g. listing the important aspects of the history, physical examination, diagnoses with supporting evidence from the history and physical and diagnostic tests, if any). The importance of this step is to standardize the scoring across raters.

Part 9: Briefing/Learner Orientation

Briefing can be done before any simulation activity. Briefing follows the ASPE SOBP 2.2.8 Briefing instructions, time frames, instructions to learners.

Often overlooked, the orientation for the learners is vital so that they know exactly what is expected. Participating in simulation activities may be stressful and may interfere with the learner's ability to perform. As a result, consider giving written (or electronic) instructions at the beginning of a course, a few days or a week prior to the event, and again an oral (or videotaped) presentation immediately prior to the start of the activity. This information should include the format and timing, session objectives, and any special instructions (e.g. bring a stethoscope, what to wear, etc.). Like the doorway instructions, the purpose of the briefing orientation is to make explicit what is expected so there are no surprises for the learers.

Part 9 – Briefing/Learner Orientation(Sample)

Format and Timing

15-minute individual encounter with an SP

Session Objectives: (as applicable)

Elicit the focused medical history Perform a focused physical examination Demonstrate Communication Skills

Special instructions: (e.g. special equipment)

bring a stethoscope

Part 10: Debriefing

Debriefing can be done after any simulation activity. Debriefing follows two Domains from the ASPE SOBPs: 1.1.8 Structure time and create a process for de-roling and/or debriefing; 2.2.7 Case-specific feedback or debriefing guidelines.

A variety of approaches can be utilized for group debriefing or individual debriefing. The term "feedback," for the purposes of this chapter, is used when the SPE or SP provides specific information about performance with the intent to modify think-

ing and/or behavior to improve future performance. SPs may be trained using a template or a rubric to give constructive feedback to the learner after the encounter according to the objectives being assessed. Frequent monitoring to ensure SPs are providing constructive feedback consistently to each learner is recommended. Monitoring is ideally done by SPEs but may be done by other SPs trained on the same case (see Chaps. 7, 8 on Training and 9 on Communication Training).

A carefully planned approach including the time allotted for the activity should be used to standardize the format for all learners.

Part 10 – Debriefing (Sample)

Techniques to be used (e.g. Plus-Delta, Advocacy-inquiry, Debriefing with Good Judgement)

> Debriefing - Plus-Delta with Learners and intentional check-in with SPs regarding emotional and physical safety
> Feedback - pre-trained rubric

Scenario Development: Interprofessional Scenarios

All of the general considerations noted above apply to interprofessional scenarios. However, any template for interprofessional simulations (sometimes called "interprofessional simulation-based education", or IPSE) [16] should address two sets of criteria: (1) How the scenario relates to the most widely accepted definition of interprofessional education; and (2) How the scenario relates to the Interprofessional Education Collaborative (IPEC) competencies (particularly in the US) [17, 18].

Interprofessional education is most commonly defined as "two or more professions learning about, with and from one another" [17]. While health science education may involve one of these activities (for instance, sharing the scope of practice or ethical standards of a licensed pharmacist with medical learners), they seldom involve *all* levels of learning about, with *and* from one another. Simulation plays a critical role in interprofessional education precisely because it is difficult to meet these criteria without it. Learners from two different professions taking the same pharmacology course does not meet the criteria for interprofessional education if they are not learning how each profession might use the same content. However, learners who learn how to apply didactic content, using their knowl-edge of pharmacology in the shared care of one or more patients or clients in a real or simulated context, are engaging in interprofessional education. Learners who participate in high-quality IPSE are better prepared for clinical education, maximizing their ability to participate actively in interprofessional healthcare teams and accelerating their time-to-competence [19, 20].

As with all simulations, successful Interprofessional education (IPE) should be scaled to the learners' general level of capability. A typical model is the University of British Columbia's "exposure, immersion, mastery" model of skill development. Simulation education can be wrapped around this educational model to create a comprehensive approach to interprofessional development (Fig. 6.2).

Similarly, IPSE should consider how the content of clinical scenarios meets IPEC competencies. The IPE Collaborative was created by several health science education accreditors in 2009 to achieve consensus on how to assess interprofessional education in their respective health science professional school curricula [18]. Specifically, the IPEC Competencies address four domains:

  I. Values/Ethics for Interprofessional Practice
 II. Roles/Responsibilities
III. Interprofessional Communication
IV. Teams and Teamwork

Fig. 6.2 IPE simulation model at the University of Minnesota. (Reproduced with permission of the University of Minnesota)
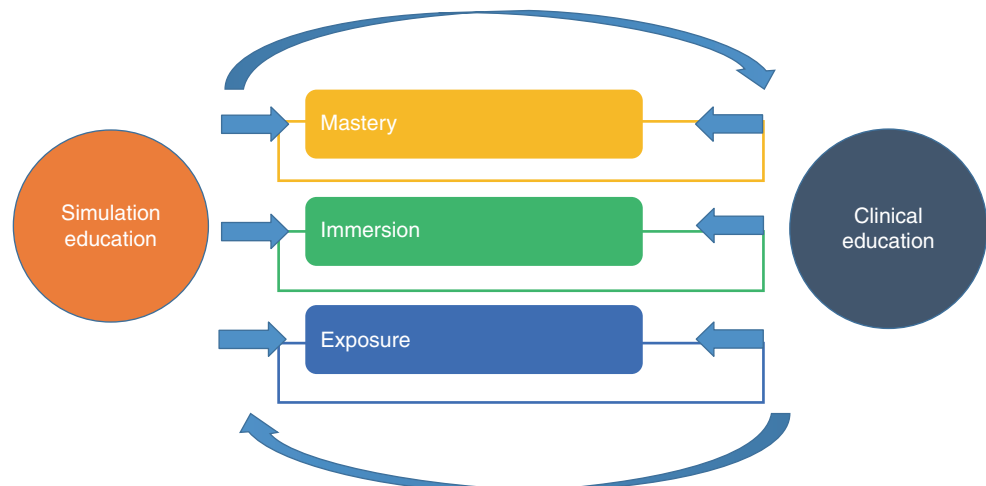
Table 6.2 Domain III Interprofessional Communication. General Competency Statement-CC Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease

CC1.	Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function.
CC2.	Communicate information with patients, families, community members, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible.
CC3.	Express one's knowledge and opinions to team members involved in patient care and population health improvement with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions, and population health programs and policies.
CC4.	Listen actively and encourage ideas and opinions of other team members.
CC5.	Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others.
CC6.	Use respectful language appropriate for a given difficult situation, crucial conversation, or interprofessional conflict.
CC7.	Recognize how one's own uniqueness, including experience level, expertise, culture, power, and hierarchy within the health team, contributes to effective communication, conflict resolution, and positive interprofessional working relationships (University of Toronto, 2008).
CC8.	Communicate consistently the importance of teamwork in patient-centered care and population health programs and policies.

From Ref. [18]

Each domain includes multiple competencies that should be taken into account when creating SP scenarios and assessment tools. Looking at Domain III Interprofessional Communication, a performance assessment may include: (Table 6.2) [18].

Since different models of interprofessional practice may be unfamiliar (or not transparent) to SPs, they may require additional training or education to successfully assess individual or team performance. For instance, what would Competency 1, "Choose effective communication tools and techniques" look like in a labor and delivery scenario with nurse-midwives and OB-GYNs? With the development of successful, inclusive clinical models, such as Team Birth, SPs are challenged to evaluate performance that goes beyond traditional models of team care. Using Team Birth objectives, successful completion of this item might include a birth plan on a whiteboard.

Even though standardized patients may not have had an experience of a delivery that included the laboring mother and birth partner, a nurse-midwife, and an OB-GYN as a team, with training, they would still be able to determine if a birth plan was shared and communicated to all team members (who are likely going in and out of the patient's room at different times) "using effective communication tools and techniques."

One team care case for social work and family nurse practitioner learners provides a good example (see Table 6.3). Shared patient interviews and team care benefit patients (who only have to tell their story once) and providers (who hear the same history and can ask follow-up questions in real time). This model of team care is particularly appropriate for complex patient cases that involve both mental health and physical health findings. However, shared patient interviews can create challenges. Providers from different professions can find it difficult to negotiate competing and overlapping goals in patient interactions and coordinate their individual interactions with patients/clients. Patients who are unfamiliar with team interviews can be confused about the role of each provider and without coordination, can feel that they are being interrogated rather than cared for. Sharing the expected competencies with simulated patients/clients helps them to better understand the educational goals of the simulation, the authentic challenges of real patients in these kinds of interactions, and how best to give feedback to the learners in the simulated encounter.

Finally, training materials – especially guidelines for SPs giving feedback – should take into account best practices in IPSE and interprofessional facilitation [21, 22]. The value of interprofessional simulation is not only in exposing learners to different professional perspectives, but in providing them with an opportunity to experience tension and productive conflict in the practice of patient and client care. While SPs are not content experts, training them in the same facilitation techniques as clinical faculty adds an important element to the quality of learner experience. In debriefs, learners often defer to feedback they receive from patients, and find it at least as credible as feedback from faculty [23].

Scenario Development: Simulated Families and Groups

Developing scenarios for individuals requires careful attention to the medical history, condition, and affect of the SP or client; developing scenarios for simulated families adds a new layer of complexity. Simulating families means simulating relationships under stress, depending on the scenario. For instance, end-of-life scenarios demand a range of emotional responses, including deep sadness, regret, guilt, fear, anxiety, and anger [24]. Developing the specific strategies and script-

Table 6.3 Case for social work and family nurse practitioner

Case Description:

I am Aaron/Erin Wessman (age 18) and have been referred to the clinic today for evaluation of my neck pain and to get a refill of pain medicine. I was in a car accident about 5 months ago when I was rear-ended, and I hurt my neck. I have been worked up by neurology and orthopedics and had imaging (cervical spine film and head and neck CT), none of which revealed significant abnormality. I briefly tried physical therapy, but the pain was too great and I stopped going after 2 sessions. I thought it would get better, but it has just gotten worse and worse. I was fired from my job at a retail clothing store because I couldn't work due to the pain. I returned to my parent's home (I moved out when I was 17) and tried living there for over a month, but me and my mom got on each other's nerves. I am living with friends, sort of "couch surfing" for the last 2 weeks. I have constant pain in my neck and arms and can't do much. The only thing that helps is Vicodin and that is what I want a refill of today. I have been taking about 4 Vicodin 5/325 (1–2 every 4 hours) each day. I have also been taking mom's Flexeril for muscle relaxation and to help with sleep for the last 2 weeks. Over-the-counter medications don't work for me. Tramadol gave me stomach upset, so I don't want that either. I drink alcohol around 2–3 drinks about 3 times per week, mostly beer and wine. I don't smoke cigarettes, but I do smoke marijuana most days, because it helps with the pain.

Interprofessional Competencies:

The learner's ability to coordinate a visit with a patient with chronic pain syndrome and drug-seeking behaviors utilizing interprofessional collaboration.

Social Work Competencies:	Family Nurse Practitioner Competencies:
Conduct a biopsychosocial problem-based history relative to presenting problems	Conduct a problem-based history and physical exam relative to presenting problems
Demonstrate the ability to develop a beginning rapport with a client	Demonstrate the ability to evaluate environmental and social factors that could affect outcomes
Demonstrate the ability to evaluate environmental and social factors that could affect outcomes	Demonstrate the use of relevant assessment tools
Demonstrate the use of relevant assessment tools	Identify necessary laboratory or diagnostic testing for the evaluation of chronic pain and substance use
Demonstrate the use of patient-centered care skills (meeting patient's needs, addressing feelings/concerns, identifying health beliefs, exploring patient understanding, negotiating treatment plan)	Formulate appropriate problem-based diagnoses based on subjective and objective data
Formulate preliminary clinical conceptualization based on subjective and objective data	Demonstrate knowledge of pharmacotherapy for the management of chronic pain in a patient at risk for substance abuse
Develop a holistic, evidence-based interprofessional management plan with family nurse practitioner based on patient risk factors, patient preferences and goals, current management guidelines, and the use of resources that may alleviate symptoms and promote health; prevent substance abuse	Develop a holistic, evidence-based interprofessional management plan with social worker based on patient risk factors, patient preferences and goals, current management guidelines, and the use of resources that may alleviate symptoms and promote health; prevent substance abuse
Counsel patient on diagnoses and management plan options (medical and psychosocial)	Counsel patient on diagnoses and medications and management plan
Specify follow up (day, time, interval, warning signs, teach back for management plan)	Specify follow up
Demonstrate effective communication and collaboration with the nurse colleague	Demonstrate effective communication and interprofessional collaboration with social worker colleague

Case courtesy of Interprofessional Education and Resource Center, University of Minnesota; Mary Benbenek, Clinical Professor (School of Nursing); and Joseph Merighi, Associate Professor and Director of Graduate Studies (School of Social Work)

ing to express these emotions, realistically simulate the deep intimacy and historicity of family relationships, and replicate those multiple times in the course of a simulation requires time, rehearsal, careful preparation, and recalibration of performances.

Other types of groups (such as victims of a mass casualty incident) also require careful coordination and choreography. While they do not necessarily require a simulated familiarity, they do require realistic responses (such as dissociation, terror, or voyeurism) to crisis situations. Structuring those responses – and coordinating them with any medical or psychological challenges built into the scenario – necessitate specialized training techniques [25].

Scenario Development: Hybrid Simulations

SPs and SPs as embedded participants (EP) (individuals who portray a role in the scenario in order to ensure successful execution) add substantially to the realism of hybrid scenarios but face special challenges in working with partial task trainers and mannequins. Standardized patients need to be trained in the operation of partial task trainers, mannequins, and other equipment necessary to the implementation of the scenario. A standardized patient practicing with wearable birthing trainer prior to simulating an obstetric emergency (with another SP as her embedded participant birth partner) in a hybrid simulation (see Fig. 6.3).

Fig. 6.3 A standardized patient practicing with wearable birthing trainer in a hybrid simulation

This training should include troubleshooting with devices so they can assist with problem-solving if malfunctions should occur during implementation (see Fig. 6.3). While this sometimes requires the intervention of a technician, an EP or SP can improve the experience of learners even in a sub-par simulation encounter.

Additionally, EPs and SPs also require coordination in their performances. Like group scenarios, this may include close, familial relationships, but it may also include more distant, even adversarial relationships when SPs are portraying healthcare professionals or an intrusive element.

Scenario Development: Patient-Centered and Patient-Driven Simulation

The development and implementation of patient-centered and patient-driven simulations offers enormous benefits to learners, practitioners and, of course, patients and patient's families. However, these simulations pose unique challenges for the SPE, crossing boundaries between fiction and fact, and potentially, education and therapeutic intervention.

Part of the challenge lies in understanding the definitions of "patient-centered" and "patient-driven" simulation [7]. As noted in Arnold et al., in patient-centered simulation, "patients' views, needs, and goals for education are the focus of the simulation as opposed to the needs of a program of study or a healthcare professional group" [7 p.S51]. SPEs are uniquely positioned to serve as translators, ambassadors, and advocates, bridging the gap between providers and patients, systems and families. SPEs day-to-day work – moving fluidly between the learners learning

needs, faculty objectives, and the realities of patient experience – offers a perspective that has no analog in healthcare education.

Just as we cannot assume that a "team of experts" will make an expert team, we cannot assume that content expertise will lead to an "expert case" [26]. Yet, we have no criteria for optimal simulation cases or optimal case development. Just as scholars have established how much "realism" is required for effective simulation, so we have the opportunity to try to establish how much specificity (and what kind) is required for an authentic case designed for meaningful learning. Patient-centered and patient-directed simulation offers intriguing opportunities for research in this arena. SP/EP scenario development can become more of a "co-production" by patients/clients and educators [27] and less of a "mirror for the teachers' preconceptions" [28].

Summary

Scenario development and training techniques must be responsive to the specific needs of clinical context experts and learners. As healthcare systems around the world change, our case development and training techniques need to change with them. The fundamental principles of scenario development and training noted above should apply to all SP-based simulations, but there are special concerns and considerations (consistent with the ASPE Standards of Best Practice) in simulations that apply to newer models of care, innovative medical technologies, and/or emerging simulation techniques. These include: patient-centered/patient driven simulation; hybrid simulations combining live role players with wearable task trainers; simulated families or groups; and most importantly, interprofessional simulation. As more healthcare professions require interprofessional education and refine their standards for program accreditation, these recommendations will take on added importance.

Scenario development is a team process, beginning with the educational objectives for the activity. The teaching faculty—in partnership with other clinicians, SPEs, SPs, and community members from underrepresented groups—should be the ones involved in designing the formative and summative activities for the skills taught. This provides a feedback loop on teaching effectiveness while avoiding pitfalls surrounding one person's opinion or personal preference. Good scenario development takes time, is an iterative process, and should be done on a routine basis in order to develop the skills of the participants working as a team and to increase the size of the case bank for security reasons.

The use of a template will provide a standardized approach to providing everything the SPE needs to implement a summative assessment of clinical skills. Pilot testing of cases

must be done using volunteer learners, residents, or faculty members unfamiliar with the case, but with similar experience to the learners with whom it will be used, to see how the case will perform prior to use. Then, the case writing committee should make any needed adjustments to best meet the educational objectives.

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Training SPs for Authentic Role Portrayal

Cathy M. Smith, Gayle Gliva-McConvey, and Anne Chapin

Vignette 1: A New SPE

You are a simulation educator in a small program and have been working with mannequins for several years. You have been assigned to start a new simulated patient (SP) program and have 12 SPs ready to work with learners in 4 months. For this first iteration, your SPs will only portray roles – they will not be asked to do any feedback or fill in any assessment instruments. You are responsible for training your SPs and overseeing quality assurance of their work. Another colleague will be recruiting, screening, orienting and casting the SPs. You are aware of the Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP) and are told this information may assist you in SP training. Now, it's time to start. How do you proceed?

Vignette 2: An Experienced SPE

You are an simulated patient educator (SPE) who worked for 10 years in an established program. You were just hired as the Director of a SP program that has been in existence for several years. The SPE who started the SP program retired. You will manage 5 less experienced SPEs who are professional, collegial and open to feedback and mentoring. You've spent a week watching these SPEs work and you notice that recruitment and selection processes seem to be running well but that the trainings seem to be done in a disorganized manner, the SPEs often appear to be unprepared, the scenarios are sometimes incomplete and there appears to be no quality assurance of the process. The SPEs note that this is the way that they have always done things and they are always short

of time. They are not aware of the ASPE SOBP. You have been a member of ASPE for 10 years and are excited to incorporate the SOBP as you know this information will assist you in supporting the professional development of the SPEs and the growth of this program. Now, it's time to start training-the-trainers. How do you proceed?

Introduction

> "The SP is a person who has been carefully coached to simulate an actual patient so accurately that the simulation cannot be detected by a skilled clinician. In performing the simulation, the SP presents the "gestalt" of the patient being simulated; not just the history, but the body language, the physical findings, and the emotional and personality characteristics as well". [1 p1]

> The ultimate purpose of training is to equip the SPs with skills and knowledge that enable them to be full contributing partners to your organization in a safe and effective manner (adapted by Jamie Pitt) [2].

Dr. Howard Barrows described training the first SP, Rose McWilliams, in 1963, to portray a patient with a neurological condition. The role, based on an actual patient, considered both medical and personal details. Rose's training was robust and included briefing on the psychosocial details of this woman's experience as well as observation of videos of neurological exams, reviewing relevant medical terminology and practicing physical signs, symptoms and reactions to expected medical procedures learners would be performing [3]. Barrows reported that he coached Rose to appear to have "a paraplegia, bilateral Babinskis, dissociated sensory loss, and a blind eye. She learned to present with the anxiety and concern of the real patient she was modeled after." [3 p446] This first training approach illustrates many themes which will be woven through this chapter, including the importance of authenticity in role portrayal, drawing on appropriate resources and subject matter experts, and adequate preparation time.

Barrows developed many SP training techniques, including the portrayal of signs and symptoms. During these early years,

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anyone wanting to learn how to train SPs learned directly from him, and then later referencing his books: Simulated Patients (Programmed Patients) [4], and Simulated (Standardized) Patients and Other Human Simulations [1]. Barrows noted that training was undertaken exclusively by physicians because of their familiarity with the medical conditions being portrayed and he described their role in theatrical terms, noting that they "must assume an active role in coaching, shaping and critiquing – a director in every sense" [4 p20].

SP training techniques have evolved since Barrows. In response to the expanding scope of SP practice, current SP training spans a myriad of structured yet flexible processes. As Nestel et al. [5] note: "There are many approaches to training SPs for role portrayal and surprisingly few with an evidence base." [5 p67]. Recognizing these many approaches, we identified experts throughout the globe and conducted an hour long interview using a semi structured questions guide, transcribed and then edited for brevity and clarity. When using direct quotes, we put them in boxes identified as "SPE Perspectives" throughout this chapter for easy reference. We also inserted summaries of the SPEs answers throughout the main text. The initial of the SPEs appear immediately after their contributions and identified in the Acknowledgement at the end of this chapter. SPs can be trained for role portrayal, feedback and/or completion of assessment instruments and these tasks can be separate or integrated, depending on the learning objectives of the activity. In this chapter we will focus specifically on training SPs for role portrayal (refer to Chap. 8 for a step-by-step training framework for role portrayal and completion of assessment instruments and Chap. 9 for training SPs to give feedback).

The Nature of SP Role Portrayal

There are some concepts related to SP role portrayal that are important to consider, including the relationship between authenticity and standardization, and the notion of performance.

Authenticity and Standardization

SPs provide a humanistic perspective in simulation [6]. They are the embodied presence of the people that they represent and as such, the nature of their role portrayal is complex and nuanced [7]. The essence of SP work is often described in terms of authenticity [8, 9], which can be defined variously as: "genuine"; "made or done … in a way that faithfully resembles an original"; "based on facts"; "accurate or reliable"; "relating to or denoting an emotionally appropriate, significant, purposive, and responsible mode of human life." [10]

SPEs and other stakeholders must understand that SPs themselves are not standardized as they are human beings, not inanimate objects. However, SP behavior can be calibrated along a continuum [11], and within a bandwidth [12]

of possibilities, depending on the context (refer to Chap. 5 - the Human Simulation Continuum Model). In formative sessions, the range of possible behaviors is usually wider and more fluid while in a high-stakes licensing exam, the range is much narrower. There can be a tension between the concept of authenticity and another central consideration of SP role portrayal, standardization: "the degree of repeatability or … consistency and accuracy of their behavior, both within an individual SP's performance and between SPs portraying the same role." [13 p3].

One challenge for the SPE is to guide the SPs to create authentic role portrayals of the people they are representing even when a high degree of standardization is required. Nestel et al. [8] remind us that ways to ensure that standardized role portrayals retain authenticity include "designing SP roles that are based on real patients and offering rigorous training for portrayal." [8 p26] In Peggy Wallace's ground-breaking and influential work on coaching SPs working in summative assessments [14], she reminds us that the role of the SPE is to work with SPs to "elicit … deeply nuanced performances … that are so consistently believable that not only the …students, but even you, forget that they are simulations." [14 p4].

SP Performance

When SPs portray a role, they are, in fact, performing [7, 15], or "interpreting a work, part, or role" [16] and this aspect of SP work is sometimes overlooked or misunderstood as being analogous to the task of an actor [7]. While there are many overlaps, SPs perform a different function than actors [13]. Unlike actors, SPs are part of an educational/assessment team and are in service to the learners and the learning objectives of the session. Those who train SPs must understand this distinction. At the same time, performance techniques derived from the dramatic arts and improvisation can inform and strengthen SP training approaches [7, 9, 14, 17–21].

The Role of the SP Educator (SPE)

Those who train SPs are variously referred to as trainers, coaches, educators, and as described by Howard Barrows, directors. In this chapter, in alignment with the definition in the Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP) [13], we will use the term SP educator (SPE) to refer to anyone who is responsible for training SPs. The SPE's role is to ensure that, by the end of a training period, SPs are role ready, meaning that they can carry out their required tasks, including portraying roles according to the expected benchmarks. In addition, the SPE must ensure that the training is undertaken in a manner that is professional and safe for all stakeholders, before, during and after a simulation session.

The work that SPEs do has been understudied [22]. Although there are some resources available for those seeking training to become an SPE or enhance their current practices (refer to Chap. 11), currently there are no formal degree courses, nor are there any explicit universally accepted qualifications for this role. SPEs are a heterogeneous group. Some SPEs have backgrounds in healthcare disciplines and are also subject matter experts (SMEs), while others have backgrounds that include, but are not limited to, communication, drama, or teaching. There is no evidence to suggest that one background is better than another background. A clinician may understand the clinical context or the way that learners may think about an issue but may not understand how to work with human role players to bring a scenario to life in a safe and authentic manner. Conversely, someone with a drama background may be able to draw out an exquisite authentic performance from a SP but if this performance is not connected to the educational objectives, and is inaccurate in terms of the clinical content, then the interaction with the SP will be ineffective and possibly unsafe. Being an SP, either in the past, or even occasionally, in the present, can be excellent preparation for training SPs [14]. This experience is a reality check, a source of ideas for future training and a way to embody an empathic and innate understanding of how to train an SP.

Box 7.1 SPE Perspectives

- "A trainer is a leader." (WG)

- "I like the term SPE because I think it covers everything that we do. Sometimes we're educating learners, sometimes we're educating faculty on how to write cases. Sometimes we're educating our simulated patients on how to best portray a role. So, I think that remembering that we are educators in our institution is really important." (LP)

- "Having been an SP gives you a real sense of what works and what doesn't in training. It has given me a lens through which I approach trainings." (LP)

Training Process

Numerous published training processes for human role players in simulation have been developed for specific contexts [5, 6, 14, 19, 24–34]. We propose a model that encapsulates three stages common to many of these processes, including: preparing; leading the training to prepare SPs to engage with learners; and, ensuring the on-going quality of SP work. Within each of these stages are steps. (see Fig. 7.1) We draw on the Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP) to structure and map our

approach, with emphasis on Domain 1 – Safe Work Environment and Domain 3 – Training [13]. As noted in the ASPE SOBP, some aspects of this approach may be aspirational, often because of a lack of resources. Not all the steps are always required. In addition, numbers have been assigned to all the elements in this model for ease of reference, but the process is not always linear or sequential.

Stage 1: Preparing (ASPE SOBP 1.1;1.2;1.3; 3.1; 4,2; 4.4; 4.5)

No matter how experienced you are, preparation is the key to ensuring a safe and effective training. There are administrative and educational details to consider. Familiarity with case material can mean less preparation time or a different kind of preparation than if the case is new to you. Your level of experience can also affect time spent in this stage. SPE preparation covers four steps with accompanying actions: Review of training materials; addressing knowledge gaps; creating a training plan; and, gathering resources. (see Fig. 7.2)

Step 1: Review Training Materials

This first step can take the greatest amount of time in the whole training process. Almost every educator interviewed noted the importance of reviewing clinical content, educational and performance elements and administrative details related to the case to make sure that it is in "good order." (CP) Ideally, this review should happen before you recruit SPs to ensure that you are matching the right SP for the right role. Here are some actions you can take related to this step.

Box 7.2 SPE Perspectives

- "You have to know your material really well." (MC)

- "The biggest transition for people who are working with mannequins is to understand the amount of work you're doing upfront with SPs, before the simulation." (AC)

Action: Review Case Content
Questions you might ask include:

- Do all aspects of the case align with the curriculum and with what learners are being taught?
- Are the goals and objectives clear?
- Are the beginning, middle and end points for the SP clear?
- Is it clear who the learners are?
- Are the clinical details and related aspects of SP role portrayal clear?
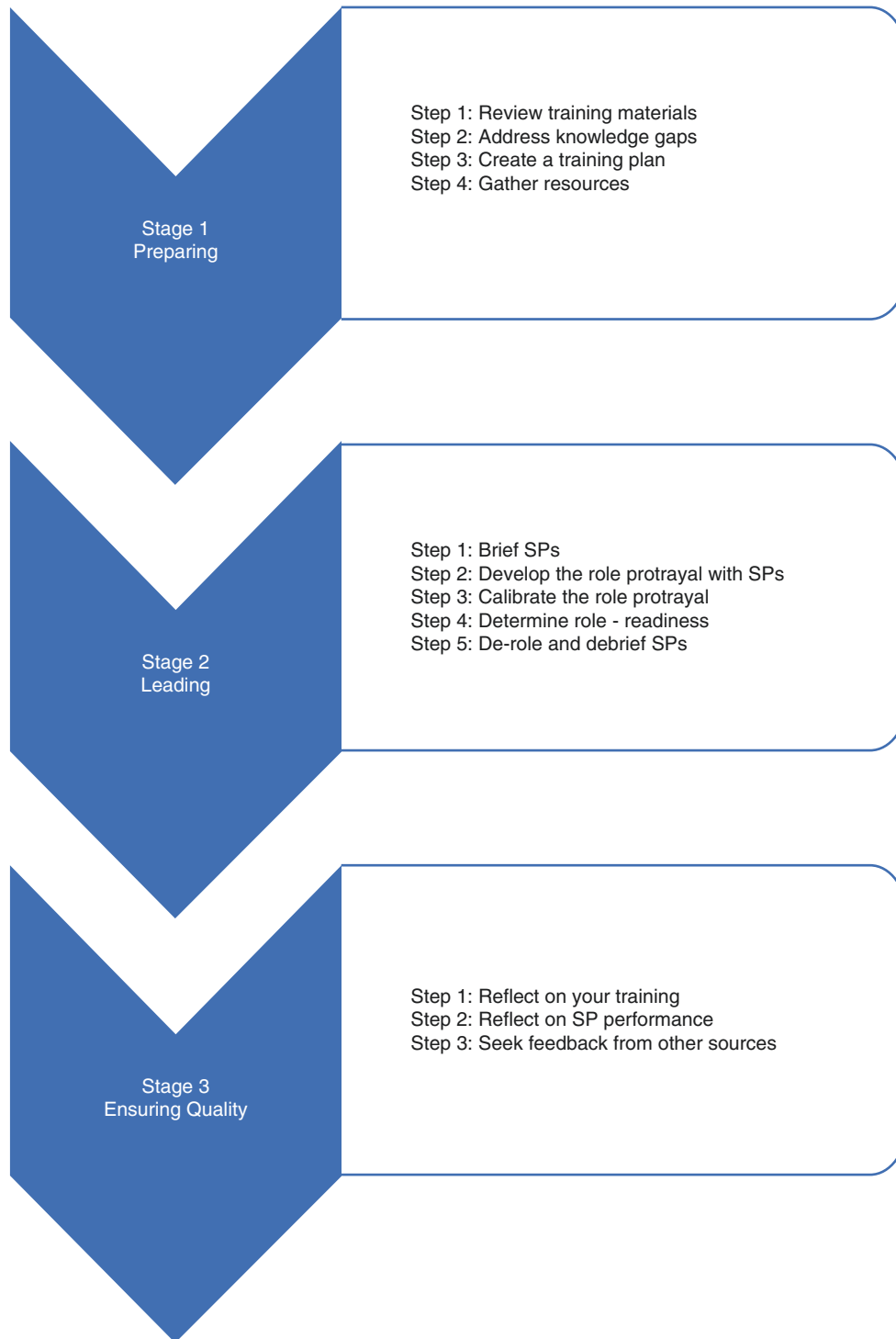
Fig. 7.1 Steps and Stages of the Training Process

Fig. 7.2 Stage 1 – Preparing

Step 1: Review training materials

Actions

☐ Review case content
☐ Review adjunct materials
☐ Review adminstrative and logistical details

Step 2: Address knowledge gaps

Actions

☐ Conduct independent research
☐ Consult with SME
☐ Consult with other SPEs
☐ Consult with SPs
☐ Document resolution of gaps

Step 3: Create a training plan

Actions

☐ Create a schedule
☐ Recruit SPs
☐ Plan training

Step 4: Gather resources

Actions

☐ Gather case specific material
☐ Gather administrative documents
☐ Secure physical resources and technology

Stage 1
Preparing

- Is the case "SP -friendly" (WG). That is, is the perspective of the person that the SP is portraying clear and reflected in how the case is presented (e.g. appropriate language, affect and quality of details) and in "the voice of what the person would say?" (LL)
- Are there clear instructions for the things that the SP must do? (e.g. verbatim lines and conditions for when to say those lines).
- Where are the gaps? (e.g. lack of clarity around descriptions of past medical history, family history, social history).
- Are there risks for either the SP or the learner and if so, what are they? [5]

Tip

✓ *Providing a resource for case writers such as ASPE's Case Development Template can help them to anticipate and fill in missing information or flag issues for your attention during your review of the material (refer to Chap. 6).*

Box 7.3.1 SPE Perspectives

- "I really like to get a copy of the role early so I can study it and read through it. I ask for the context that the role is being done in, so I understand the setting that the role is going to be played in. So I have an idea of what to prepare the SPs for when they go into the role, where they're going, who they're doing it for, what the level of experience is of the people that they're working with, what the goals and expectations are that the client has for the learners." (SG)
- "I carefully read through the case and by doing that I start getting two things. The first is getting a sense of where the pitfalls are within the case. Sometimes it can be something simple like just making sure at the top of the page when it says special affect to be portrayed, making sure that's accurate and coincides with the rest of the information. But I guess the biggest thing is, I start getting a picture of who this patient is before I go into the training. So then when I'm in the training, I'll be able to gauge better if the SPs are thinking along the same lines." (LL)

Action: Review Adjunct Materials

Videos (either specifically made to demonstrate how the role should be portrayed or examples of actual encounters) and/or review notes and feedback from previous sessions can help you benchmark what has been done more and less effectively and can be used in training. If you are using videos of actual encounters be aware of privacy and security policies and make sure that confidentially of all participants is respected and observed.

Action: Review Administrative and Logistical Details

Details to consider include:

- Date, time and location the simulation is taking place.
- Activity format: e.g. summative, formative, large group, small group, 1-on-1
- Complexity of role portrayal
- The length of the interaction
- The number of times the SP will have to do the role portrayal on a single day
- The amount of training required
- Number of SPs being requested
- Budget
- Special instructions that may affect how the SPs interact with learners such as accommodations for learners that may affect the timing of a station (e.g. longer than usual) or role portrayal details (e.g. SP needs to speak more slowly)

Step 2: Address Knowledge Gaps

Knowledge gaps can relate to both the content of the case (general and specific information) and the process of training SPs (e.g. being able to demonstrate physical exam maneuvers). Strategies for addressing the gaps include:

Action: Conduct Independent Research

Researching can include sources such as the internet or textbooks or evidence-based articles. Make sure that these resources are sanctioned by the SME.

Box 7.5 SPE Perspectives

- "If there are things that I am not very familiar with or I'm unclear about content wise, I like to do some research and find out a bit more." (SG)

- "I always get an understanding of the issue. I also go to Bates and review the physical exam if applicable, to the case. I also look at our curriculum, all the syllabus and the course materials just so that we're in-line with what the students are being taught. I always want to make sure that the SP checklists are in-line with what the students are being taught in terms of best practice for physical exam." (RM)

- "When I'm preparing to train, I assess my own knowledge to make sure I have a good understanding of whatever the role is the SPs are going to do, whether it's a particular condition that they must portray or an affect. I need to make sure that I understand how it realistically should be portrayed. Often, I do some internet searches, look at videos, maybe even look at scholarly sources in terms of how things have been trained in the past." (LP)

Action: Consult with SME

This may seem like an obvious action, but it is one that can be overlooked, especially if you are pressed for time or have a clinical background but are not the SME. It is important to negotiate with the SME what gaps can be filled in (e.g. name of spouse or children) and what gaps are important to check in about (e.g. kind of symptoms, when the symptoms started). Sometimes SPEs feel that they are bothering a busy SME by asking questions or may be perceived as lacking expertise or confidence. However, rather than make assumptions, clarify boundaries and expectations. Having this type of dialogue can also promote mutual professional development. Topics to cover may include:

- Clarify SME expectations of what the SP will do (e.g. role portrayal, feedback, completing an assessment instrument) and how they will do it.
- Suggest ways to adapt the requested patient demographics according to your available SP pool (e.g. could the SP be a grandparent instead of a parent?) (JS)
- Discuss ways to diversify patient profiles to reflect the community in which you live (e.g. underserved populations, people with disabilities, LGBTQIAP+, low health literacy, etc).
- Conduct ongoing reviews with faculty of cases that are used repeatedly at regularly scheduled intervals to update, them, according to current practice and feedback from the last iteration of the case.

Box 7.6.1 SPE Perspectives

- "I have had meetings with faculty where I have played the SP and had them role play with me just so they can get a sense of how it's going to go, and so I can figure out in the moment what's unclear to me or what do I not know."(JP)

- "It's basically that we've got good definitions of physical exam maneuvers from the clinicians, clarifying any items that were problematic the last time we used the case." (CP)

- "I often find that there are some holes in the cases, missing information that I know the SPs need when they go into an encounter. I study the case first thoroughly, raise my own questions, identify where I need some information and then I communicate with faculty to clarify their expectations and I get that information that is needed. I also clarify the goals of the case. Sometimes the faculty will list the goals of the case at the top which is very helpful because I share that with my SPs. I want them to know going into the encounter that this what the student is expected to do, so I need to understand that before the training. I clarify any goals of the case with faculty, as well as any portrayal guidelines that they have, especially if it's a mental health case or if it's a pain. For an acute abdomen case, I want to be clear about the extent and severity of the pain that is to be portrayed. I want to be clear with the faculty about exactly what affect and demeanor this person is supposed to have so that it can be portrayed at the desired level." (WG)

Box 7.6.2 SPE Perspectives

- "I may send faculty a list of questions if it's a case they've developed with another educator. I don't always feel that I have a sense of what's going to happen and when and why until I have talked to the faculty person." (JP)

- "Sometimes there may be some gaps in the scenarios that I would want to address with the case writer or the faculty member before the training even takes place so that I can present the most comprehensive case to the SPs from day one of training." (LP)

- "All of our scenarios and all of our checklists had not changed in several years. So, 2 years ago, I

started having meetings with faculty to review and modify the assessment checklists." (TL)

- "If I feel like the role has gaps or problems that I foresee coming up in the training, it helps me to have a chance to talk to the person who's hired me and to ask them questions so that a lot of that stuff is dealt with prior to the training. So that it's not an issue when you start actually training the SP." (SG)

Box 7.6.3 SPE Perspectives

- "I will check with the writer first to ensure the material is properly written for our SPs." (SPK)

- "I develop the case training material with the faculty, making sure that the goals and objectives are being incorporated into the training materials." (TO)

- "Because I am a one woman show, I am highly involved in the creation of cases, so I am like the SPs' voice the entire time the cases are being created. It's very helpful because the faculty members are very medicine-focused where I am more person-focused." (NS)

- "The real preparation for the training with me is working with the faculty to get a case that is trainable." (JS)

- "We're that liaison between faculty and SPs. So that if there is any medical terminology, we'll make sure that we ask the faculty how a patient might describe it. We always have to add things like how does this patient present, how do they talk about this information? We 'SP-ize' the case and put it in our format in getting ready to go." (GGM)

Action: Consult with Other SPEs

Reaching out to other SPEs, especially if you work on your own, can be helpful when filling in gaps. Chances are, another SPE has either had experience with the topic in question or can point you towards someone who can help. Questions can be posted on independent and organization-affiliated list serves. ASPE and SSH provide on-line forums as a member benefit. An independent list serve is hosted by the University of Washington (https://mailman13.u.washington.edu/mailman/listinfo/sp-trainer). Many simulation organizations (including those above) also have both formal and informal mentor-mentee programs that can provide you with support.

Box 7.7 SPE Perspectives

- "I love … reaching out to my other peers to say 'Hey, this is a case, look it over and see if there is something you think our SPs need and we haven't provided.'" (NS)

- "I've found value in networking with others in the field who have had some experience and having a conversation with them to understand how they approach training. How did they approach delivering this type of simulation? I think there's benefit to that in preparing before you actually engage with the SPs because you may be able to incorporate some of that knowledge you received." (TO)

Action: Consult with SPs

SPs have the invaluable perspective of being the person who embodies the role. Experienced SPs can quickly spot gaps (e.g. What size is the rash? What does 'not feeling well' mean?). Involving them in this preparation stage can help to flag gaps that otherwise may not be spotted until the actual training.

Box 7.8 SPE Perspectives

- "Sometimes, I recruit an SP to provide the SP perspective – for both new case development and recurring cases. I will also send the case to an SP whom I think will give good input about it or look for holes that maybe I am not foreseeing and ask them: 'Will you take a look at this and see what you think the SPs really need to know or what is unclear?' And make sure that I have I really answered all these questions." (JP)

- "We'll do case development before we train where we will ask an SP to come in and do like, I guess kind of a dry run, but it's on a smaller scale. I'm having them step in and out of playing the role about what's unclear, what they need to know, that kind of thing." (JP)

Action: Document Resolution of Gaps

Once gaps have been determined, create a process for documenting how they are resolved in an explicit manner that is carried through to the training and then archived for the next time the case is used. Despite everyone's best efforts, be prepared for gaps to emerge at any point in the training process.

Step 3: Create a Training Plan

A well-designed training plan is helpful in the planning and standardization of an SP training and ultimately may contribute to time management. A training plan allows you to prepare for and deliver thorough and effective training whether you are working with SPs one-on-one or in groups, in person or online. A comprehensive training plan involves administrative as well as educational considerations.

Action: Create a Schedule

This part of the process can be time consuming to develop and coordinate, especially if you are under resourced (e.g. you do not have administrative support, you are working on your own). Many of these details will have been identified earlier in this review process. Now it is time to consolidate this information.

How Many Trainings?

The amount of time and the number of trainings needed are dependent on specific contextual factors such as the type of activity (e.g. formative, summative, low/high-stakes), the type of case (e.g. complex, simple, history, physical), the SPs selected for the activity (e.g. novice, experienced, specific skill-sets), whether the scenario is new and/or you have trained it before, your knowledge and skill level, the number of SPs being trained, and available resources (e.g. funding, time, space, technology, SME). Additional details to consider include whether the SME is expected to participate in any part of the training process because if so, you will have to take their schedule into consideration. Are you required to schedule any observations of actual encounters with learners to ensure the quality of SP performances? You will have to make sure that a training space, equipment, and technology are available at the time that you have scheduled your training. While it is outside the scope of this chapter, it is worth noting that if an SP is also going to be completing assessment forms or providing feedback, training time is usually increased [31]. (refer to Chap. 8 and 9).

> **Tip**
> ✓ *Complex cases and multiple SP tasks (role portrayal, feedback, filling in assessment instruments) usually require more training time and/or multiple sessions. New SPEs/SPs may also require more training time.*

Box 7.9 SPE Perspectives

- "Part of training is preparing for a dress rehearsal and that's getting the right faculty to come and do the cases with the SPs. And then it's setting up an observation schedule because the training doesn't end when you start the simulations. You still need to watch what's going on carefully the first week or so to be sure things are in order and give the SPs feedback." (CP)

- "I like to recruit about 6 weeks out from a project which would mean getting a case 8 weeks before the session so I can prepare for training. I don't like to train more than 3 weeks before an event. Some of our SPs work with us so much that they can get their cases confused and if there's a huge gap between the time that they recruited, trained and then the actual event date, there could be problems with that. So, in an ideal world, the training would happen about a week to 2 weeks before the actual event. It gives the SPs a chance to reflect on the role as well and then think about it after training - maybe they will have more questions that might come up." (LP)

- "I will check the schedule of activity to see if I have enough time to train our SPs." (SPK)

Home Study Verse Face-to-Face Training

Some SPEs send out the case(s) and briefing details prior to the training in order to leverage their face-to-face time with SPs or have their SPs look at online material [35]. Depending on the context, expectations related to the amount of SP preparation at home varies from quickly reviewing the case to coming fully prepared to dry run it and being signed off as being role ready. There are advantages and disadvantages to sending out cases prior to training.

Advantages

SPs have time to review and arrive fully prepared for the activity and training. Encouraging SPs to send their questions prior to the training session allows the SPE to consult and obtain answers from the SME, and to incorporate them into the training session – which can save time. SPs also have an opportunity to study at their own pace, which appeals to some SP learning preferences and the need for prior preparation time. If the SPs have done the role before, this home study can serve as a refresher. Being able to review the whole case prior to the first training, can allow an SP to decline an event because of specific details that might be uncomfortable

to portray, and that not might have been identified in your initial recruitment information, thus supporting psychological safety.

Disadvantages

There can be an unevenness in the work that SPs do at home. Some are fully prepared while some come into the training session not having looked at any material. The SPE must spend valuable training time catching up the unprepared SPs while the prepared SPs can become frustrated. SPs may also learn the content of the case inaccurately or have misperceptions that can become challenging to manage. Finally, sending cases prior to an assessment via unsecured channels (such as email) that are not password protected may result in loss of case confidentiality. Usually, the higher the stakes of the exam, the more the need for security around distribution of case materials.

Remuneration

If SPs are expected to do uncompensated pre-work at home, there are further factors to consider. First, it may be against the institutional policies to ask SPs to work for what is essentially free. Second, it is difficult to have expectations about the results of unpaid work. Third, there is an ethical component to consider related to creating a training system that relies on SPs being unpaid for part of their training, especially if all the other stakeholders are paid for their time. This inequity can send a message to everyone that the time SPs spend preparing at home is not valuable as there is not a budget line attached to it. Solutions to funding home study SPEs identified include offering capped compensation or an honorarium, which involves paying SPs a set rate for home study to acknowledge the importance of this part of the process. Other SPEs report that when negotiating contracts for SP work, they build home study time into the fee that they pay SPs. By paying SPs, the SPE has managed expectations and consequences, and signals to both the SPs and all stakeholders that this time is an essential and valuable part of the process.

Tips
- ✓ *If your training model involves home study, consider compensating SPs since this time as an essential part of the total training time.*
- ✓ *For example, if you have 3 hours budgeted to train an SP case, you could make 30 minutes home study and 2.5 hours face-to-face training.*
- ✓ *Provide quizzes related to home study materials for SPs at the beginning of the face-to-face training sessions.*
- ✓ *This practice validates that home study is rewarded, showcases SPs who are prepared, and reveals*

information that might have been confusing in the home study materials. Quizzes can be written or verbal. (AC)
- ✓ *Develop online training formats that allow SPs to review and learn material at their own pace and time (e.g. physical examination techniques, behavioral affects, key information, illustrations). (KP)*

Box 7.10.1 SPE Perspectives
- "One of the challenges we've tried to mitigate is the SPs coming to the training day with 12 questions about the case – we end up spending so much time trying to find the answers or help the person understand." (NS)
- "When you pay SPs for home study, you're in a position where you can also have expectations when they come in. Because you paid them to do the work and if the work is not done, that's a professionalism issue and a job performance issue." (RM)
- "I send SPs the case before the training session and I expect them to read it through and have some questions for me when they get there." (WG)

Box 7.10.2 SPE Perspectives
- "Budget is always a challenge. Sometimes budgets only account for paying SPs for their time related to the delivery of the session. Training expenses somehow get shoved under the rug. You've got to pay SPs. If I expect an SP to study, to show up prepared, I pay for home training. I want a commitment from them and know that they are taking this seriously. I insist on having a well-trained SP before I send them into a session." (WG)
- "Well, the main pattern is that we do mail, it's not email for security reasons in the exams, but really mail by post. The SPs get the scripts ahead of the training to study." (BB)
- "We have a huge number of SPs and we're also scheduling a second center. We cannot always get everybody here for the same training. So, we do offer on-line training sometimes where SPs web conference in and we do pay for those just like we do for face-to-face sessions." (KP)

Action: Recruit SPs

While specific recruitment considerations are covered in another chapter (refer to Chap. 10), here, the focus is on making sure that suitable SPs are available for all training sessions as well as the simulation session. Clear communication protocols are essential to save time and leverage your energy, especially if you are also the administrator. Many SP educators stipulate that they must be able to communicate with SPs online via email and that SPs have reliable internet service. SPs are expected to reply in a timely manner.

> **Tips**
> ✓ *Send out one initial email to SPs containing all the information related to their involvement, including the times/dates of both the training and the actual simulation session.*
> ✓ *This process is much more efficient for you and clearer for SPs than sending out several emails over time with bits and pieces of information.*
> ✓ *You need to have all pertinent details established before sending this email out [36].*
> ✓ *Schedule automated reminder emails about upcoming trainings and sessions.*

> **Box 7.11 SPE Perspectives**
> • "I provide confirmation emails to SPs at least a week in advance of the training so that sometimes that's as much as 2 weeks before the actual event." (TL)

Action: Plan Training

Planning your training within a flexible framework will increase the probability that SPs will be fully prepared for a simulation session. Because of the wide variations in contexts, a one size fits all how to do-it guide is not appropriate. Rather, when structuring your training consider how to plan for each step involved in Stage 2- Leading the Training. Again, depending on the context, some of these steps may be spread out over two or more trainings and there may be greater emphasis on one step than another. This approach assumes that the training will be done face-to-face and, in a group, if there is more than one SP portraying the same role. However, with slight modifications, all these steps can be applied to other types of training such as online training [35] or when working with one SP.

> **Box 7.12 SPE Perspectives**
> • "I started to develop a lesson plan because I want to detail out how much time it will take to train and to determine the requirements that I need to train the SP to meet the goals and objectives." (TO)
> • "I write out a template for how to manage the training of the role." (SG)
> • "I prepare a study guide for the training session. I pick out key pieces from the case." (WG)

Educational Theories to Consider When Designing Your Trainings

There are numerous educational theories that can be drawn on to design a safe and effective training, of which we will mention a few, including adult learning theory, experiential learning theory and constructivism.

Working with Adult Learners

When we train SPs, they are the learners. Most SPs are adults and many of the SPEs interviewed identified that they draw on adult learning theory when training SPs. This theory has many interpretations but Cranton [37] reminds us that there are some broad themes, including that the activity is voluntary, self-directed, needs to be experiential and collaborative, should draw on the prior experience of the learners, and should be flexible to accommodate the various levels and experiences of the learners.

Principles of adult learning that can be applied to designing SP training:

- Draw on the experiences of the SPs
- Seek the input of SPs
- Provide SPs with the rationale and the context
- Select different strategies to engage and enhance retention
- Have clear benchmarks of what role readiness looks like so that SPs understand the end goal
- Provide timely feedback
- Recognize individuals may learn differently and develop flexibility
- Be respectful

Experiential Learning

Experiential learning is learning-by-doing. Kolb [38] developed a structured 4-part, cyclical model in which someone has a concrete experience, then makes sense of the experience through reflection and analysis, and then takes the learning from this process forward to test in a new experience.

Principles of experiential learning that can be applied to designing SP training:

- Make trainings interactive by encouraging questions and comments
- Provide clear benchmarks for your SPs so they understand expectations
- Move in the training from talking about concepts to having SPs demonstrate understanding through portraying the role
- Create clear guidelines for observer behavior and feedback from peers so there is a safe psychological space for SPs to make mistakes and learn from those mistakes
- Allow SPs to make sense of their experience through reflection and analysis before stepping in to give feedback
- Build the capacity and confidence of your SPs by supporting your SPs to think about how they might do something differently next time and offer them opportunities to put this new strategy into practice

Constructivism

Constructivism is a broad term for a group of theories in which learners draw on past experiences to co-create new knowledge and meaning, together with other learners and the educator. No one person has all the answers [39].

Principles of constructivism that can be applied to designing SP training:

- Draw on the past experiences and expertise of SPs
- Provide opportunities for SPs to discuss concepts amongst each other
- Welcome questions and comments from SPs
- Be prepared for SPs to spot gaps in a case based on their previous experience
- Allow SPs to observe other SPs to learn from other approaches
- Draw on experienced SPs to portray learners during practice runs
- Leverage the experience of your more experienced SPs by mentoring them to either assist you or take over training sessions

- Consider creating opportunities for SPs with expertise in other areas (e.g. acting, social work) to lead professional development workshops based on topics relevant SP work (e.g. improvisation, bias)
- Recognize that you have some expertise and can learn a great deal from your SPs

Step 4: Gather Resources

Action: Gather Case Specific Materials

Case-specific materials can include patient charts, electronic health records, station references, hybrid equipment, moulage, props, and wardrobe. Review learner instructions to make sure that the SP has the same understanding of the facts related to the case (e.g. vital signs) as the learner, if this is appropriate information for the SP to also know.

Tips

✓ *Create or use pre-existing tools to design your training process to maximize your training time:*

- *Tamara Owens notes that she draws on her teaching experience and from the time she started training, she has created a lesson plan to guide her training. (see Appendix 7.1)*
- *Wendy Gammon creates a "one- page study guide" related to key points in the case that helps the SPs to learn the information in a manner that will also reinforce how they will do other tasks, such as filling in a checklist.*
- *Jamie Pitt recommends several adult learning tools developed by the International Training and Education Center on HIV (I-TECH) [2], including:*
  - *Adult Learning Readiness Checklist*
  - *Before Training: Curriculum Design Worksheet*
  - *Trainer Attributes: Competencies Self-Assessment*
  - *Trainer's Skills: Competencies Checklist*

Box 7.13 SPE Perspectives

- "When I develop the training materials, that includes the script, the patient door sign checklists, guides, student post-encounter forms, any verbal feedback guidelines, props and any other requirement that goes with this SP simulation." (TO)

Box 7.14 SPE Perspectives

• "I print copies of all the cases so the SPs can take notes on them during the training rather than study off their phones." (TL)

Action: Gather Administration Documents

There can be many administrative details to track, including confidentiality and consent forms, payroll, parking passes, nametags, sign-in sheets and schedules as well as cases, if they are printed.

Action: Secure Physical Resources and Technology

Securing physical resources and technology is sometimes seen as a last-minute priority and its importance underestimated. Careful planning and preparation will avoid unnecessary interruptions and contribute to the successful implementation of an activity.

There are several items associated with this action.

Training Space

What space will you train in? Do you need to book it in advance? Does this space need to be secure (e.g. no one outside the room can hear or see what you are doing?) Privacy is an especially important consideration when training for high-stakes examinations. Is there flexibility in how you can set up the space (e.g. everyone sitting in a circle rather than behind desks)?

Simulation Equipment

If you are training for physical exams, will you need specific furniture (e.g. a stretcher/bed for a physical exam, equipment to conduct a physical exam)? If you are training for a hybrid simulation, will you have access to the devices your SPs will be interacting with. Will you need to have a simulation technician present when training your SPs or can you operate this equipment yourself? Is there a specific room this equipment is in?

Presentation Equipment

Will you need a computer and/or projector and speakers, or will you bring this equipment? Is there a white board or chart paper and markers (to create a shared visual field)? If you will be showing a video is it compatible with the equipment provided?

Technology

Do you need internet capability? Do you need a password to get onto the computer and/or internet? Is there an IT department you can call on if you run into difficulties? If the training is online, are you familiar and comfortable with the platform being used or do you need training/support? Will you be filming any of the encounter? Do you have the proper equipment?

Box 7.15 SPE Perspectives

• "There are other materials like x rays or lab data. We must make sure that all that is needed is there in the case. Not that we give all that to the SPs, but certainly what is it that the learners need to have to make the case realistic." (GGM)

• "I'm looking at adjunct materials to the case that might help the SPs. Sometimes I look for videos to either show the physical condition or even to show what the physical exam might look like if it is a physical that they're going to be put through. What a perfect abdominal exam might look like before we do some hands-on activities. It's helpful for our SPs." (LP)

Stage 2: Leading the Training (ASPE SOBP 1.1;1.2;1.3; 3.2;4.5)

Now, all your preparation pays off as you guide your SPs to fully embody the role they are going to portray. (see Fig. 7.3) This preparation must be tempered by flexibility, as human beings are involved. SPEs must be able to adjust to their SPs' abilities, curating training approaches with the goal of developing highly effective and engaged SPs. Experienced SPEs educators are acutely aware of the challenges of being an SP (e.g. repeating a role many times, being in a small room for long periods of time wearing minimal clothing, being under

Step 1: Brief SPs
Step 2: Develop the role protrayal with SPs
Step 3: Calibrate the role protrayal
Step 4: Determine role- readiness
Step 5: De-role and debrief SPs
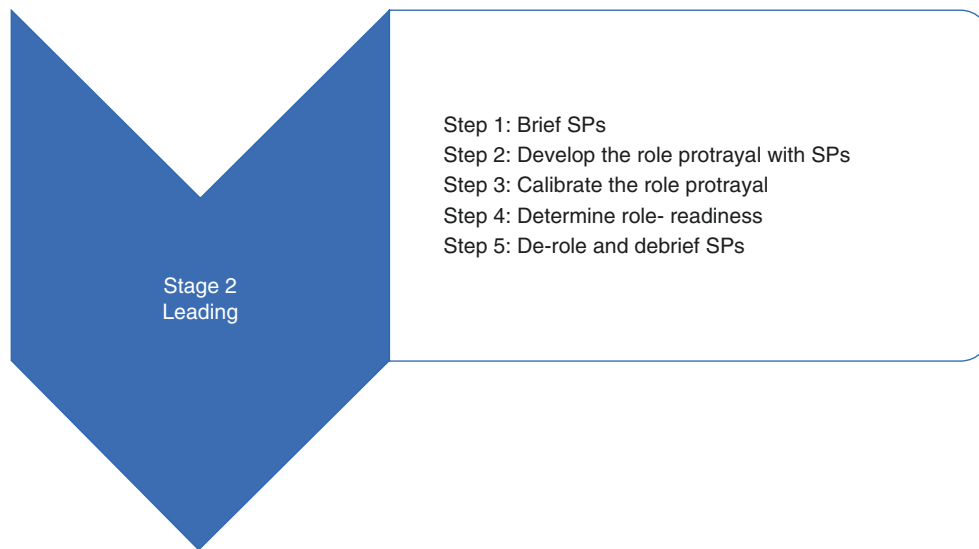
Stage 2
Leading

Fig. 7.3 Stage 2 – Leading the Training

continual video and audio surveillance, having tight time-lines and expectations that things will be done in an error-free manner). How SPEs guide SPs in developing their role portrayal is often influenced by the background of the educator. Enthusiasm, curiosity, humility and sensitivity are cited by SPEs as being key traits for SPEs.

Box 7.16 SPE Perspectives

- "I show enthusiasm. I bring to life to the character that SPs are about to become so that they are excited to play this person. I don't just sit there and read off a paper. I put the paperwork down. I bring it to life. You need to show some enthusiasm as a trainer and to do that you have to be prepared." (WG)

- "When I was beginning as a trainer, I felt like I needed to be the expert in the room and I'm finding more and more that you don't want to be the expert. I think you want to be somebody who's got a grounding in everything, but also open to all the other people who have insight and to be okay with not being the expert and with having questions. Allowing yourself to not have all the answers, it's good to acknowledge that. It's like when we teach communication skills – we tell the learners that it's okay to say you don't know and you'll find out or ask other people." (SG)

- "Ask yourself this question at the end of your training: "Who did most of the talking?" If you did most of the talking, chances are, it was trainer centered. If the SPs did most of the talking, then you "SP-centered" your training." (GGM)

Step 1: Brief SPs

Just like all the other stakeholders in a simulation, SPs must be briefed so they are clear about the guidelines and parameters of a simulation activity. You will have gathered this information in the preparation stage. Details to include relate to the activity objectives and logistics, dates and time of training and dry run, format, SP responsibilities, and payment. Be prepared for SPs to ask questions that you had not anticipated and to repeat information, especially if you are working with new SPs. Providing them with these details in writing can create further clarity. Again, determine what is secure verses non-secure information.

Box 7.17.1 SPE Perspectives

- "The first thing that I think about in terms of preparing the SPs for a role portrayal is making sure that they understand the context within which they're going to be working. It's always important for me that the SPs really understand who it is that they're going to be interacting with, what the overall goal

of the simulation is from the learner's perspective. I think providing some context for the SPs gives them some parameters within which they might work. It gives them some understanding as to the level of the learner." (LP)

- "The first thing I do is make sure that everybody understands why they're here. I get all of that out in the front. So, they're not thinking about it when you're training the case. No. if you start training the case and they start saying things like, who are these students and why are we doing this and when does this start, you've lost them." (MC)

Box 7.17.2 SPE Perspectives

- "From an adult learning theory perspective, it's important for the SPs to know who it is that they're going to be working with for the day and what those objectives are. So, I always create a document that basically outlines who it is that they're working with, why, what those learning objectives are. As well as administrative things that they might need to know about how the session is going to run." (LP)

- "We have to make sure that people understand the whole project, or they don't feel engaged." (MC)

- "It's important the SPs know the goals of the case and the format." (WG)

- "First, we'll go over all the parts that are important for adult learning theory such as the who, what, when, where, why, how of the session, and what are the objectives." (JP)

- "It's regarding what's important in this scenario, the objective of scenario, where the focus lies, the importance of the opening line and how this basically establishes the whole conversation." (LS)

Step 2: Develop the Role Portrayal With SPs

Now we come to the heart of the training process – guiding the SP to step into the role of the person they are portraying. Even with apparently simple roles, this step is rich and nuanced and involves several layers. SPs must know the "what"- that is, the facts that are in the case about who they are as a person and also what brings them to this encounter. For example, if they are portraying someone with a medical issue, they need to know facts about this issue from the perspective of the person they are representing as well as who this person is, independent of the issue. A large part of the SPE's task is to support SPs in developing a holistic under-

standing of who they are portraying [6, 7, 9, 14, 18, 25, 40]. SPEs report that SPs are better able to think on their feet and adapt to the unexpected in an authentic manner when they have a three-dimensional sense of the person they represent.

SPs also must know the "how"- that is, the expectations for the behavior associated with their role portrayal. This list can be very long and flexes according to the context. Considerations include: What, if anything, do they have to say verbatim? What can be adapted? How much information do they give when asked a question? What is their affect? What are their physical behaviors? Are they listening for specific things that the learner must say in order to cue the learner? [11, 41] Often, different types of simulation sessions will have different kinds of behavioral requirements for the SP. In a high-stakes summative assessment, the description of behavior is more closely defined whereas in a more informal formative setting, SPs may have more latitude in their behaviors [12].

Engaging SPs by using interactive learning techniques can facilitate deeper learning and retention in comparison to a trainer-led format (e.g. lecturing or reading to SPs). Examples of interactive learning techniques are provided in Appendix 7.2 as well in Box 7.18.1–7.18.7. These techniques draw upon many concepts related to working with adults in an experiential and constructivist manner as outlined earlier in this chapter.

Box 7.18.1 SPE Perspectives

- "I type out the questions that the students ask and then I will pass out the questions to serve as role playing scripts." (TL)

- "We give our SPs a preparatory assignment. For example, if a patient is walking around on crutches, will give them the crutches, teach them how to walk and talk the way that we want them to, and then have them use those crutches for a couple of hours going to and from class just to see how people are interact with them. When they've done this exercise, you can tell immediately who gets it and who doesn't, who may need more coaching. Also, who is more expressive. It prepares them to answer questions from learners that have not been anticipated in training and helps them to feel more comfortable within the role and answer that question appropriately from the perspective of the patient that they're being asked to play." (AC)

- "Once they've gotten a picture of the patient, then we work on how this is going to look in action. We do a mini dry run within that initial training so they can put everything together." (LL)

Box 7.18.2 SPE Perspectives

- "We use motivation so our SPs understand more about the role and so they can engage more fully. The nuance and the gestalt of the patient from inside to outside. The emotion. For example, a mother has a seven-year-old daughter who has had a fever for 3 days and there is no definite diagnosis. This mother needs to work every day, but she is also a mother and she is worried about her daughter. She has pressure from her other relatives to stay at home with her daughter. An SP thinks about this situation so she can feel the pressure, the anxiety, and then she can get into the role so she can express the emotion to the learner because she has that pressure." (SPK).

- "We try things like a day in the life of the person that the SPs are portraying. What would the day look like? And then we have a sort of lifeline depending on the situation, about what happened at which point in the life of that person to make SPs imagine how the person they are portraying would live, especially when it is somebody who is very different from them. How would the next-door neighbor describe the person that you are portraying or how would your daughter think about this situation?" (HH)

Box 7.18.3 SPE Perspectives

- "We give the SPs the character role. They're given a quiz on that character role. They have to get an 80 percent or better in order to be able to play the role." (AC)

- "We do rounds where everybody is in role and I start off by throwing questions at the SPs very quickly and they're supposed to answer them. I usually put in questions that are not in the scenario to see how they are able to work with those in." (HH)

- "I had an ah-ha moment with a learner who said: "Oh I get it, ask, don't tell". And I've carried that with me when I train. When somebody asks a question like: "What should we do if this happens?", I put it back out into the room, and ask: "Does anybody have any ideas about this?" You get all these great ideas as opposed to having to come up with all this yourself, and then everybody's more engaged. I like asking questions as opposed to just spouting information which nobody will remember. It's that critical thinking factor. SPs are thinking it. It's not just being spoon fed to them. They're having to put some energy into coming up with an answer and I think people will remember things better that way." (SG)

Box 7.18.4 SPE Perspectives

- "You really want to start (the training session) with the important work, which is the role of portrayal. So, we decided to start doing a more comprehensive at-home training, which was more structured. We measured whether SPs did the home study through an online quiz which gives us a sense at the start if SPs are getting it or if they are kind of missing it. So, before the training even starts, I kind of have a sense of who's going to take a lot more work." (RM)

- "I've learned the hard way to ease into training. I start by asking the SPs what they know about what we're going to do as far as disease states go or as far as patient circumstances. What's your own experience? For example, I'd say today, you know, you're going to be trained on a patient with chronic obstructive pulmonary disease. How many of you know about COPD? It gives me a baseline. Where are we starting from? If they all say, oh, we know everything about this good, we can kind of go from there, but if they don't know anything about COPD, I want to give them a little background on what it is or does." (MC)

Box 7.18.5 SPE Perspectives

- "We have a discussion after we've gone through the case and talk about things like: What does this patient understand about this encounter? What are they hoping to get out of this encounter? What does the student see when they enter the room? Describe your clothing if applicable; What are the physical behaviors the student sees? Because when SPs only read the case, sometimes I get the sense that they understand the case, but then asking these clarifying questions, sometimes they have a very different understanding of what the encounter is supposed to be about than our intent." (KP)

- "There's another aspect that I can mention, which is something that I've always done, it's called the Mantle of the Expert. Dorothy Heathcote [42, 43] started with this notion that if you teach a class then you are the person with the knowledge, but your students also have knowledge. So, Heathcote developed a strategy where she incorporates the knowledge that the participants bring into the sessions, and by doing so, drives the action forward through what the participants already know. Then through role-play they enter into the state of metaxis, where they basically live in two simultaneous roles, the real world and the role that they are adopting, but they view the role objectively. That's where the learning occurs. So, the Mantle of the Expert approach to me is important because you are working with human beings. Instead of enforcing knowledge from outside, you evoke the knowledge from inside and use that for them to do their job." (LS)

Box 7.18.6 SPE Perspectives

- "The first thing I ask them is if they have any questions (after they have read the case over at home) and usually there are questions. What I do with exam roles, is to go through the checklist with them so that I am reassured that they know how to answer every point on the checklist. This is an interesting format to identify gaps in the script." (BB)

- "I ask my SPs if they have any questions, anything they need to know or that is unclear to see if we can figure those things out. It's nice because every room has a couple of dry erase boards so I can have SPs make a list of questions as they come in, as they're arriving for training. They'll write questions on the board. That way I know, okay, I need to cover all these things." (JP)

Box 7.18.7 SPE Perspectives

- "I always try to prepare the SPs for the mechanism of the disease. Not only to learn the material (e.g. this is where it hurts) by heart, but to make them understand why it hurts, where it hurts and why. The better they understand the disease and the mechanisms of the disease, the better they can really live in that performance and be spontaneous and improvise." (BB)

- "I will always summarize the case highlights, sort of the main points that I want to review with them. And then we just do some role plays, demonstration and practice." (LP)

- "Sometimes the SPs think of the case in a way that I didn't, and they bring up points that never would have crossed my mind but are so valuable. They are the experts in the room. SPs are the ones who sit in front of 36 different learners and go through the case over and over and over." (LP)

- "Sometimes I reverse the roles so if somebody is struggling with the portrayal of the role, I have them be the interviewers, so they get to ask the question. Sometimes it changes the way people think about it, it puts it in their brain a little bit easier, especially if people are struggling with memory, I think it helps." (SG)

- "We invited in an expert, a psychiatrist, to help our SPs while we were training for a role related to mental health." (SPK)

Using Video/Digital Recordings

Rationale for Using Videos/DR

Videos provide benchmarks of expectations of how a role should be portrayed (e.g. behavior and affect, when to say scripted prompts, how much information to give in response to a question). Diverse learner approaches can be illustrated. If a role is done infrequently, it can be difficult to remember

nuances and a video can assist in refreshing everyone's perception. For high-stakes exams, modeling videos are often necessary in order to calibrate everyone's understanding of the role, especially if there are multiple trainings, various learners, SPEs and distributed sites.

Types of Videos/DR

There are many different types of videos that can be used. Some SPEs have a library of videos that feature actual encounters between SPs and learners from previous sessions or exams while others create and tape simulated encounters. Schlegel et al. [44] outline a study in which SPs were taped in dry runs, then given the opportunity to reflect on their performance according to a set of criteria and receive feedback from the SPE. The conclusion of this study was that that this technique "enhances the accuracy of SP portrayal." [44 p730].

Making Videos/DR

Making videos can be as easy as using your phone. Some SPEs report that, when permitted, recording trainings and making them available for SPs who are not able to attend or who want a refresher (e.g. via smart phone or video conferencing technology) helps to leverage their time. Before making, showing or posting videos determine institutional regulations related to the confidentiality, security and privacy of the case material, the learner and the SP.

When to Use Videos/DR

The timing of when to show the videos depends on a several factors, including the type of simulation, the complexity of the role, and the level of experience and learning preferences of your SPs. Introducing the video at the beginning of the training session allows everyone to start with the same mental model of the person the SPs will portray. Reviewing a video at this point may appeal to the SPs who have more of a visual learning preference. It also may be the first time SPs are exposed to the learner's level of performance or to even being an SP and a video can give them context about how everything will eventually integrate. However, there can be disadvantages in showing a video at the beginning of training. Viewing one SP's portrayal at the beginning of the training may distract other SPs from finding their own connection to the person they are embodying. Viewing the video at the

> **Tips**
> ✓ *Whenever you review a video make the experience interactive. Use a guided observation technique rather than asking your SPs to passively observe an interaction. Start and stop the recording at key points to discuss related to expectations of the role portrayal (e.g. answering questions, dealing with*

> *unknowns, making mistakes), areas to be highlighted/duplicated, and always elicit the SPs' observations of the performance. Using this technique will structure the SPs observations and allow them to see the vision of the role portrayal contained in the case". (GGM)*
> ✓ *"Having more than one version of how a case might play out helps prepare SPs for variations in learner performances."*

> **Box 7.19.1 SPE Perspectives**
> - "If there's a prototype tape that I think is a good prototype, I like the SP to be able to look at it and see this is what it's going to look like. Especially if it must be standardized. So, if it's something you've done before and you had a good fit and you're retraining them to do the same case again, it really does help to use that prototype case. Having a library of these prototype tapes is really handy." (MC)
> - "Recently we had our SPs portray patients with schizophrenia. So, I found a video of an actual patient to show the SPs how an actual patient with schizophrenia behaves." (SPK)
> - "If I have a video of a good exemplary encounter, I absolutely show that to the SPs before I start my training. If I don't have a video, I do everything possible to bring it alive. I present the patient almost as if I'm doing an oral presentation." (WG)
> - "We video record all of our training so that if SPs cannot attend live, then they would watch the video recording of the training and then they could meet with the educator who is onsite and go over their understanding of the training techniques and practice." (KP)

> **Box 7.19.2 SPE Perspectives**
> - "I love it when cases are accompanied by training videos because I think so much of the way SPs learn is through observation. I would say 50 percent of it is through doing it themselves and 50 percent of it is through them observing other people go through the role, especially when we're trying to standardize something for a high-stakes exam. It sets a good

benchmark. I find even poor videos are just as valuable as good videos because they demonstrate what we might not want an SP to simulate or how that mistake might throw the candidate off." (LP)

- "In some situations, training videos are provided, and I find them really helpful just because of different learning preferences. I find some people learn better saying it out loud while some people are more visual. It gives a bit of context to them as to what the role might look like as opposed to reading four pages of typing. I find that it's kind of reassuring for most SPs to see the role played out because they see that they're not going to have to do everything all at once. The videos are a great tool for discussion. You can stop and start and check the SP's comprehension. Sometimes, we stop the videos before the SP on the video answers and then see how the group would answer. SPs get a chance to do a bit of critical thinking about how they would respond to that question." (SG)

- "Sometimes we might send a link out to the SPs when we send the case and say – "Take a look at this video of what we want you to portray" – because it will pull everything together watching it." (GGM)

end of the training session may help with the SP's memory and retention of the whole role that was just trained.

Step 3: Calibrate the Role Portrayal

Once the SPs have become comfortable with understanding the what and the how of the role, the SPE works with SPs to calibrate their behavior to the required level of consistency and accuracy, or standardization. SPs also must contend with the fact that learners are not standardized in their behavior. There is no way to predict the variety of ways a learner might behave, yet SPs need to respond in a manner that is consistent within the bandwidth of behaviors of the person they are representing.

As previously discussed, there is a huge variation in how this process is done and how long it takes, dependent on the objectives of the session, stakeholder expectations and the practices of the SPE. Working within a group who are all portraying the same role helps SPs to shape a collective understanding. Implementing the concept of deliberate practice [45] can be helpful at this stage – meaning lots of repetition with targeted feedback and the opportunity for the SP to

implement and successfully integrate the feedback. Providing practice with anticipated learner approaches can increase an SP's ability to calibrate authentically and appropriately in responding to learners [46, 47]. Having SPs observe each other can be as powerful a learning experience for them as having them actually perform the role, as long as they have an appropriate observation tool [48].

Box 7.20.1 SPE Perspectives

- "I like to train my SPs as a group. I think it develops it a team culture. They self-calibrate. Everybody gets on the same page." (WG)

- "There are cases where standardization's not important, but the objectives are important. You can find out if SPs have achieved their objectives from the student feedback." (MC)

- "I create a portrayal checklist, that notes the physical presence, how the SPs were dressed, was their affect and demeanor correct, did they ask the questions that they were supposed to ask, did they cough 3 times, did they give the correct case information? This is what we fill out as we are watching each other perform, whether it is during training or during an OSCE. I have people come in and watch and fill out a portrayal checklist. This is how I calibrate the SPs to be sure that everybody is on the same page and that they are doing all they are supposed to do." (WG)

- "I would ask questions that streamline the SPs accordingly. For instance, if there's a scenario where they need to display pain, we all know that come the tenth or fifteenth student, one gets tired. So, I will give them the tools to tap into, to keep on displaying the pain. I will, for instance, tell them to sit in a certain way on the chair so that they feel a little bit awkward or not quite comfortable so that they remember this is not a "coffee chat session", to remind them that they need to keep on showing and displaying pain. Or I'll give them something, like a tissue in their hand, so that they remember when they feel the tissue. It's an outside source of a reminder that they are in role." (LS)

Box 7.20.2 SPE Perspectives

- "I have one SP read questions I have created based on those asked by student in previous exams to another SP. It's orienting both to the types of questions that they can expect from the level of the learner. Then when the SP who's reading the question hears the response of the other SP, that's also standardizing responses because now two of our four SPs heard how they're each going to respond to the students." (TL)

- "I guide the SPs to find the right proportion and not to say too much and not become the expert in answering from the checklist. This will impact the authenticity of the role play. For example, in some situations where the candidates have stated a terrible diagnosis and ask if the SP has any questions, we don't want the SPs to come up with questions on their own, so as to not disrupt the purpose of the exam." (BB)

- "I do a mini dry run integrated into the training where I do my best to portray different learners." (KP)

- "During the training, the trainers act as candidates. They role play with the SP and performs the role with each of the different SPs." (BB)

Box 7.20.3 SPE Perspectives

- "I chunk the information into sections. We have little visuals [57]. So, for example, under the OLD CARTS pneumonic for taking the history of present illness, we have a symbol for every part of the old cart. The SPs are familiar with these visuals because it's the same template format in the same order for all our cases across the board. And as a trainer when you're training multiple cases in a week, it's so much easier for me now to find a fact when training. And I'm thinking, is that a six out of 10 or seven out of 10? I know the symbol to look for the visual key in the training material so I can find that information immediately. So, it's not only benefiting the simulated patients, but I've found that as a trainer, it's really given me a shortcut for scanning quickly and finding what I need in the materials." (RM)

- "To prepare for exams all the SPs are in the role at the same time and I ask them questions and we try to get the same intensity from every SP to calibrate the volume of the voice and things like that. Also, it's not only about the psychological issues but to help them remember the most important things and the way they should say these things. So, we do a sort of "rounds" where everybody is in role and I start off, I'm going to throw questions at them very quickly and they're supposed to answer them and I usually put in questions that are not in the scenario to see how they answer them." (HH)

Box 7.20.4 SPE Perspectives

- "Being transparent in terms of whether they have more flexibility in this role, or if they have to stick to the scripts and the conditions. I'm setting expectations out for SPs in terms of standardization, especially for licensing exams." (LP)

- "We created "standardized jokers". When you're playing cards, you will always have this one card that you can use for everything – the joker. So, we usually have like two or three jokers or rewards that are defined for the SPs when the candidates communicate with nice open-ended questions. Little pieces of information the SP can provide that will help the learners with the diagnosis. If the candidate asks an initial open question, the SP can give joker one. And if joker one is already given, the SP can give joker two." (BB)

- "I am helping the SPs become more flexible in their reactions. I think that is very important in the training that you do the role play with them and that you play different candidates. You have some typical behaviors like the candidate that has a complete black out, the candidate that has the total wrong diagnosis. The candidate that just shoots question after question without making sense." (BB)

Box 7.20.5 SPE Perspectives

- "I do improv games where we standardize the physical exam or the way a certain line should be said related to emotional levels. I will do things like have two lines of people and give them a neutral line, like the phrase 'pass the salt'. "They look at the person across from them and say the phrase: 'pass the salt'. They say it as if they are the person in our case who is frustrated at the physician for asking: 'Do you think you should cut back on your drinking?' Like if we think that the level of frustration should be a 4 out of 10 – what does that sound like? So, one person tries and then the person across from them tries saying it back the same way. And then we get the group to agree – is that a 4? What would make it a 5? So, setting parameters that you can be frustrated at a level 4, but you need to escalate it, dial it up to a 7, then take it back down to 4. So, doing that to practice and standardize, do we all sound the same? We all sing it the same way. And then we may add in things like more physical portrayal. Was it like rolling your eyes and then saying the line or let's standardize if there are particular important moments either with the emotional portrayal the physical exam, trying to standardize that as a group by having them look at one another and hear one another and adjusting to match each other." (JP)

Box 7.20.6 SPE Perspectives

- "I call it the standardization sandbox. If they're given a sandbox to play in, they're just going to play with the sand wherever they are, but you must create the parameters around that character so that everybody is playing it in the same way. As healthcare providers training SPs, we come at this from our own mental maps. As a healthcare provider, I care that you have a DVT, I care that you had surgery on your other leg. I care that you are a teenager because of the simulation where it's sitting in the curriculum and I care that you want to go home. But if I don't create the rest of it and that person can't embody that character, then I'm not going to have standardization the way that I need it". (AC)

Box 7.20.7 SPE Perspectives

- "I get a group of four or five SPs together who are are portraying back pain that's an 8 on a scale from zero to 10. I ask them: 'How many of you think that you could tell just by looking at someone that they were experiencing a pain of 8 out of 10?' Usually all five of them raise their hands. Then I say, 'Okay, what types of things would you see in their body language, or in their face?' We talk about expressions and furrowing of the brow and maybe a pursing of the lips and maybe sitting forward in the chair instead of leaning back. And then everyone puts their bodies into that position. And then I ask: 'If you could tell when you talk to the person next to you that they're experiencing pain at 8 out of 10, what would you hear?' Maybe they're not taking deep breaths or maybe they're not speaking very loudly. Then we go around to all five of them and each of them says the opening line. And then I ask them: 'Did everyone feel like you were all at about the same level?' And, surprisingly, you know, sometimes they might say, you know, well, I felt like maybe I was faster than everyone else. So, we try it again, until that group of SPs agree that this what an 8 looks and feels and sounds like. Because pain is subjective for this assessment, it may be different than next year with different SPs." (TL)

The Issue of Cognitive Load

During this training step, knowledge of cognitive load theory and strategies for managing it can be helpful. As has been outlined, SPs often must absorb and then incorporate into their role portrayal many layers of information. Sometimes scenarios are long and detailed or may contain challenging information or physical maneuvers. The age of the SP may also affect their ability to retain information [49–52]. We might ask SPs to learn a complex case in a short amount of time. They may have to do more than one task in addition to role portrayal, such as providing feedback and filling in assessment forms, thus increasing the complexity of their task. Learners are not standardized and may have great variations in their approaches that SPs, in turn, must respond to within the parameters of role they have been trained to portray. In short, we may push the

boundaries of how much SPs can learn and do. Drawing on Sweller's concept of cognitive load theory (CLT) [53], Reedy [54] notes that "there is a limit to how much information people can process simultaneously, and this impacts how information is stored. Too much information, or too difficult a task, presented in an ill-considered or unstructured way, can result in cognitive overload for a learner" [54 p356] , in our case, an SP.

Strategies for Managing Cognitive Load

- Simplify the number of scripted, verbatim lines that SPs need to memorize.
- Look for opportunities for SPs to use their own words to deliver the information
- Develop the SP's ability to improvise – that is, to adapt within the given circumstances of the role. Note that improvising is not ad libbing – or making up information – which can prove to be a distraction [48, 55, 56].
- Look for opportunities for SPs to carry information with them in much the way a patient might do in an actual situation (e.g. a medication list) rather than asking them to memorize these details.
- Look for opportunities for SPs to draw on elements of social histories that they have created for other cases.
- Chunk or scaffold how you guide SPs into embodying their roles rather than expecting them to integrate everything all at once. For example, have all SPs demonstrate how they are at the opening and ending of a scenario or chant verbatim lines together, so they all get a physical sense of the words and connect movement and words.
- Do spot quizzes or round robin exercises where you reinforce knowledge after covering it in a training so the SPs are continually active during the training. Nestel et al. [5] describe a trigger simulation technique where SPs go one after the other for short bursts (e.g. 20 seconds) during an interview. This activity may be done numerous times with various kinds of learner behaviors and time intervals. This process "requires SPs to pay attention to all facets of the portrayal" [5 p69] and offers SPs the opportunity to assess and support each other while they are calibrating their role portrayal.
- Sweller suggests that offering learners a goal-free context in place of a specific task can lighten cognitive load [53]. This concept might involve asking your SPs to think of the case details simply as descriptions of a friend, rather than as details to be memorized to present to a learner, especially if they are required to learn a case quickly.
- When the SP must do more than one task (e.g. role portrayal and assessment), there is a greater cognitive load

and therefore a greater amount of time is needed for training, practice and integration.
- There are additional strategies to assist your SPs in dealing with unpredicted questions in Chap. 8.

Step 4: Determine Role-Readiness

Borrowing from theatre terminology, SPEs often will refer to this step as the "dress rehearsal" or "dry run" that may happen at the end of a single training session or as a separately scheduled last session in a multi-step process. Starting at the beginning of training and continuing to this step, you will have been informally assessing SP understanding of the role portrayal and case details. Here, you are doing a final assessment that SPs are confidently, accurately, consistently and fluently demonstrating role readiness as it has been defined for this specific simulation session. In some contexts, a SME will be responsible for signing off on SP role readiness while in other contexts SPEs and SMEs do so jointly or the SPE does so independently.

SPEs report there is a wide variation in how SP role readiness is determined ranging from a subjective sense that they get from observing the SPs to using a role readiness assessment form with specified criteria. There are many published tools that can be drawn on and adapted for this step [6, 23, 26, 41, 58–60]. Having a form with transparent, clear and consistent criteria increases the psychological safety for all in the room as there are no surprises for anyone about what role readiness means. It also relieves any pressure on the SPE to have to make judgements on the spot or from a subjective stance that could be challenged, especially for a high-stakes assessment, where role portrayal accuracy and consistency are paramount. Introducing this type of form in the briefing, making it available to SPs to work with, and referencing it throughout the training may help SPs to become familiar and comfortable with expectations and work as a group to calibrate their performances to the desired level of repeatability.

SPEs need to draw on their facilitation skills at this stage to provide clear feedback to SPs [61, 62]. SPEs must understand and be able to negotiate between being a facilitator (where reflection is encouraged, knowledge is co-constructed and learners are able to self-assess and adjust to achieve role- readiness with very little guidance) and the expert in the room (having to give direct and prescriptive feedback) to make sure that SPs are role ready, especially in a high-stakes situation. Strategies should be in place if SPs cannot achieve role readiness by the end of a dry run. Typically, solutions might involve extra training time but occasionally it may mean that SPs must be replaced because, despite their best efforts, they are not able to achieve role readiness. While the wellness of SPs is always paramount,

and treating SPs respectfully is a foundational principle, ultimately SPs are there to support the learners and the learning objectives. The SPE does not serve anyone by letting an unprepared SP work because they don't want to hurt feelings or they have a sense that the SP just needs a few rounds to build up confidence. As an SPE, you may develop close bonds with your SPs and it may be challenging for you to have to acknowledge that an SP is not going to be able to demonstrate role readiness, no matter how hard you work with them or how hard they try. Having an alternate or spare for each role may also alleviate any pressure if you have to replace an SP at the last minute.

Novice SPs or SPEs may need more time to get to role readiness. Think about scheduling dry runs within a week of the actual session to promote retention and if possible, a few days before the session, just in case the SPs need more practice or to encourage integration. Sometimes you may sign SPs off as being role ready in the dry run, but they are not role ready on the day of the simulation session. Working with humans means everything may not go exactly as planned or expected. Use this situation as an opportunity for reflection on how to improve the quality of the work you are doing.

Box 7.21.1 SPE Perspectives

- "We allow faculty to have a final say." (MC)

- "We don't have a formal sign-off process, but especially for the highest stakes exams the rule is that each of them must demonstrate a sufficient performance to the trainer before going to the exam." (BB)

- "I think they're ready when they feel they have no more questions." (HH)

- "At the end of every training session, I say to the simulated patients: 'On a scale of zero to 10 where zero is 'Help me, I can't do this. I don't know what's going on' to 10, which is 'I want to see a student right now,' write on a piece of paper your level of readiness'. And then we have everyone turn it over. It's interesting to me when you ask them if they're ready, to see the responses you get." (RM)

- "I think you're connecting many dots together to get a full picture. I'm going on my overall gestalt, but I'm also going on many little points of assessment throughout the training that kind of join together to form a picture after a while, like little pixels." (RM)

Box 7.21.2 SPE Perspectives

- "The other thing that I think is always so helpful is having a session that's a dry run with a health professional who represents the profession of the learners. We do this in licensing exams. I find it helpful because these people have the most authentic way of approaching the role play in a way that I might not. And, I can focus on critiquing the SPs performances." (LP)

- "I find having a checklist of things to look for very helpful because it actually makes you look for those qualities in all the people as opposed to having a general impression. I think it's a bit of a risk to assume people are ready if you haven't seen them demonstrate it." (SG)

- "We run a dress rehearsal and everybody who's new, we do our best to have them see 3 clinicians. All of the encounters are observed and inter-rated and SPs get coached in between if they make a mistake by the person who watched them. Dress rehearsals are usually about a week before the event." (CP)

- "I'm looking for outliers basically, especially with newer SPs." (JS)

- "Our new SPs will go into the observation room and observe some of our advanced students doing the simulation – they're always able to observe before they do it." (AC)

Box 7.21.3 SPE Perspectives

- "For the dry run, I'll ask one of the seasoned SPs to portray a learner. I take them aside and tell them things I would like them to do. For example, I might ask them to verbally demonstrate empathy at very appropriate times but nonverbally to use their clipboard for note taking to create a barrier. I get SPs to portray patients and learners. I don't let anybody look at their case or their checklist. I'm the only one that is sitting there with a case and the checklist. I score it. And then at the end of that I have everyone pick up their checklists and score it independently. And then we start with observations. I ask, okay, what did everybody think of the affect? What did everyone think of response to learner cues? – those kinds of things. We're training more than the number we need, so if we see anything in training that

gives us pause, that SP may be pulled out to be a proctor [administrative staff], especially the first day, so that they can go back and watch the other SPs do the case. Then we might consider putting them in. Role readiness is kind of the gestalt." (DF)

- "During the OSCE, our SPEs watch the SP performance through a two-sided mirror so they can see if performance of the SPs they have trained is consistent." (SPK)

Step 5: De-Role and Debrief SPs

De-roling and/or debriefing SPs after a simulation event is the final stage in the training process [13, 63]. An effective debriefing provides information about what the SPs did effectively and less effectively. It's also an important ethical consideration for ensuring SP psychological safety and wellness, through allowing time for SPs to de-role or separate from the role they portrayed, especially if it is an emotionally intense role [6, 63]. There are approaches in the general debriefing literature that may prove useful to you to consider when designing SP debriefings and developing your debriefing skills [62]. If you are under resourced and would have difficulty scheduling and/or budgeting the time to conduct a debriefing session, consider strategies such as creating some debriefing questions that SPs can complete in writing before leaving the simulation site and/or a time that they can call you to follow up if necessary. Even a simple question from you at the end of a session such as "How did that go today for you?" can let you know how an SP is doing and if necessary, you can have a further conversation with them. Training

more experienced SPs to take on this task can be an effective way to leverage your time. SPE Beate Brem reports that at her site, she and her colleagues are co-creating a debriefing workshop together with SPs, which reinforces the concept that SPs are adult learners and like to be involved in shaping their learning experiences.

Stage 3: Ensuring Quality (ASPE SOBP 3.5; 4.6; 5.1)

Quality is defined as: "the standard of something as measured against other things of a similar kind, the degree of excellence of something." [64] This stage, illustrated in Fig. 7.4, is about benchmarking for yourself what you both did effectively and what you need to improve. SPEs can ensure the quality of their work though many actions, including reflecting and debriefing for future improvement; assessing the work of SPs in order to inform their own training practices; and seeking feedback from multiple stakeholders about the effectiveness of their training.

Step 1: Reflect on Your Training

Ensuring quality training starts with the SPE. How does the SPE develop quality? Reflection is a key concept underlying experiential learning that SPEs can draw on in their daily work. Husebø et al. [65] note that "reflection is a process of learning from experiences, considering and evaluating previous knowledge in light of these experiences and then incorporating this new knowledge to inform further practice." [65 p368]. As an SPE, the learning is not just for your SPs but also for you. The process of reflecting is a muscle that can be built up over time with consistent and targeted

Step 1: Reflect on your training
Step 2: Reflect on SP performance
Step 3: Seek feedback from other
        sources

Stage 3
Ensuring Quality
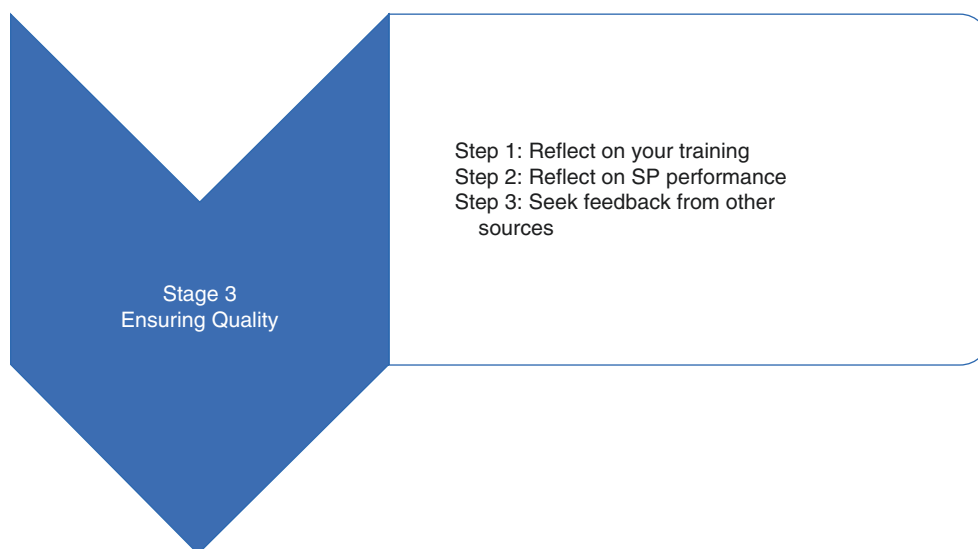
Fig. 7.4 Stage 3 – Ensuring Quality

practice. For the SPE, reflection can take many forms such as self-assessment with the proviso that this process is a difficult skill for anyone to develop [66]. Having tools with benchmarks related to your performance can help guide your reflection process and the self-assessment of your work. For example, SPEs report that working with the ASPE SOBP allows them to further consider and refine their practices. SPE Jamie Pitt has adapted a "Trainer Attributes: Competence Self-Assessment" form and a "Trainer's Skills: Competencies Checklist" [2] to assess the effectiveness of her training. Debriefing can be as informal as asking yourself questions such as "What did I do effectively?"; "What can I change for the next training?"; "What did I learn today?"; "What surprised me in this training?" If trainers work in a group, they may find it helpful to schedule regular, structured group debriefing or there may be opportunities to create online groups with colleagues at a distance.

Box 7.22.1 SPE Perspectives

- "I will also look at the training and do my own self-assessment about what worked, were the SPs really engaged with or did they seem disinterested at this part or did this cause more confusion?" (JP)

- "Doing this interview has helped me reflect on some things that I might change in my trainings." (TL)

- "After training, I ask myself: 'Did I present the case and the expectations in the manner in which I planned them?'; 'Did any of the activities not go as well as I thought?'; 'Would I do more of one thing and not another?'" (DF)

- "When something doesn't work out, what I've tried to do is say how can that not happen again?" (MC)

- "No matter how many years I've been doing this, I come out of a training and I think – did I explain that clearly enough?" (LL)

Box 7.22.2 SPE Perspectives

- "During and after training, I reflect on any SPs who are just being quiet or just reading their non verbals in terms of maybe they still may need a little bit more coaching. Although they did a fairly good job, they may need some additional monitoring, coaching, and cheerleading to get them over the finish line." (TO)

- "One of the things that I always do as soon as the SPs leave a training is reread the case because I find that sometimes there are things that are really important to the case that maybe I glossed over or maybe weren't highlighted well enough in training. And then I have an opportunity to get in touch with the SPs, whether there is a second training session or a dry run or even just send them an email to say, one thing we didn't talk about was this, but it's important." (LP)

- "I reread the standards of best practice to reflect on the work that I'm doing. It was such a great way to reflect on my work and I enjoyed doing it." (LP)

Box 7.22.3 SPE Perspectives

- "What I'm learning is that all the things that we're hoping SPs will do, are things that I have to model." (SG)

- "One of the big reflection pieces of my work is in my writing about what we're doing." (AC)

- "When the ASPE SOBP were published and we reviewed them, we realized that we hadn't been doing dry runs. So, we started dry runs last semester and it was very successful." (AC)

- "Something that really impressed me when I first read the SOBP is the care and looking after the SPs." (LS)

- "When I review my training, I ask myself, did I engage our SPs? Did I use the right techniques to engage them?" (SPK)

- "I'm doing a lot shoulder rubbing with simulation educators." (AC)

- "When I reviewed the SOBPs, I found that our 12-year-old SP program has done many of these things." (SPK)

Step 2: Reflect on SP Performance

This kind of quality measure may be the most common or familiar for SPEs. The quality of your training can be indicated by the performance of the SPs. The effectiveness of an SP's performance may be determined through direct observation during the simulation session and/or post event video review. Using a Role Readiness tool can inform your understanding of how well you were able to prepare them and assess what they did affectively and less effectively. Tamblyn et al. [67] note that SPs generally can make two kinds of

performance errors – random (e.g. occasionally providing wrong information) and systemic (e.g. consistently providing inaccurate information or too much information). Random errors are inevitable when working with human beings, but systematic errors provide a valuable opportunity to diagnose the quality of your work. Systematic errors can be caused by a variety of factors, such as having selected an SP not appropriate for the task (e.g. not able to memorize so much information) or ineffective training (e.g. SPs were not prepared for unexpected responses). SPE Mary Cantrell notes: "If the SPs are not performing well, you didn't train them well." In the spirit of debriefing models such as Advocacy/Inquiry [68] and PEARLS [69], consider approaching this type of review with a curious mindset and the goal of gathering information to improve and deepen your practice.

Box 7.23 SPE Perspectives

- "It does help to have recordings you can look at." (MC)

- "And I guess it goes back to the checks and balances. What checks and balances are in place to ensure the SPs are doing quality work on the event days if you are not actually watching them?" (RM)

- "I think it's beneficial to have an opportunity to watch how the case runs out on event day. Because there are often things that come up in the case that I could identify as maybe not being highlighted well in training." (LP)

- "When you get the chance to watch videos of people in role on the actual exam day you see what has sunk in for that person or not. So that's helpful for me because it gives me ideas about things that I needed to have been clearer on. How could I have done differently? Could I have asked more questions?" (SG)

- "I see how the SPs grow. I will observe and I'll see where there are gaps. I think mainly it's through the growth that happens in the SPs." (LS)

Step 3: Seek Feedback from Other Sources

Multisource or 360-degree feedback [70] can also help you grow as a trainer. Creating evaluation forms for SPs, learners, faculty and even other trainers will give you valuable information about the role portrayal from the SP's perspective, the impact of the session on the learner, and the effectiveness of the case, the simulation event and training outcomes.

Box 7.24 SPE Perspectives

- "We do an SP satisfaction survey which is anonymous. It gives us direct feedback on not only the training but the event itself. We also get feedback from the students, faculty and the SPs, and that gives me an idea, especially from the faculty and the students, if we achieved the learning objectives for this session." (RM)

- "I do feedback in a reverse ask format to the SPs: 'How do you think this went?'; 'How do you feel about the case now?', 'Was this helpful?'; 'Did I cover everything that you think you need?' (WG)

- "I ask the SPs for feedback – if they liked the training and if they understood everything." (HH)

- "We have survey for the SPs to give us feedback, but it also could be used for peer review by having one trainer watch SPs trained by another trainer. I use it for self-assessment for myself as well." (JP)

- "We send out a survey to our SPs. The questions that we're asking the SPs are things we want to reflect on such as rating their overall satisfaction with the event, the quality and content of the case materials, and the quality of the training that they received. Then we ask them to self-assess their ability to accurately and consistently portray the role. Then we ask them to select the training methods that have best helped them prepare for the event." (TL)

- "I ask the session facilitators for feedback." (HH)

Troubleshooting: Challenges & Solutions

SPEs interviewed for this chapter were asked to describe their most frequent "challenges" encountered during training and creative and effective solutions they have implemented. Here are the top five.

Challenge 1
How do I work in a manner congruent with the ASPE SOBP when I constantly feel over extended and under resourced?

Solutions

1. Harness the experience of your most experienced SPs by including them in training and quality assurance measures. At some institutions, these SPs are hired as SP trainers. Other institutions have SPs assist or direct trainings. Eastern Virginia Medical School calls this role an

"adjunct trainer". A more recent development in the school's history, LL notes: "I don't know how we ever did it without them." JS mentors experienced SPs to become lead SP trainers and calls this strategy a "distributed model for training." AC draws on the experience of SPs who have previously done a role to mentor new SPs and prepare them for role play.

2. Recruit medical students or create medical education internships for medical students/residents to assist in enacting training sessions. LL notes that immersing and engaging students and residents in the process of simulation can solve a present gap as well as creating a future benefit as future medical professionals become attuned to the strengths and processes of simulation-based training.

3. Develop an annual refresher training during slower times (usually in the summer) to review and re-calibrate universal or general skills, strategically cast SPs for future roles and cut down on SP training times for specific cases during busy times of the year. General training sessions can also be times to highlight and celebrate the work of an effective SP team (SPK, TL, TO, DF, LL).

4. Create online material and modules that SPs review prior to face-to-face training or tape trainings that SPs can review if they are not able to attend a training.

5. Create SP workshops for both specialized and general information that SPs can then apply to all their work and that can also provides valuable professional development opportunities for them. Draw on the expertise of the SPs in your pool. For example, these workshops may involve exploring cultural bias and implicit bias related to interacting with learners or focus on interprofessional education or enhancing performance skills through improvisation.

6. Remember, even if you are on your own, you will still be working with faculty, and/or the SME who has created the role, and your remarkable SPs, of course! AC advises: "Don't try to do it alone."

Challenge 2

How do I keep SPs engaged, focused and motivated, especially when there is a diverse range of experience in a group?

Solutions

1. LP notes that to focus SPs, she always brings the session back to the learning objectives and the purpose of the case.

2. JP notes that varying her training techniques helps to counteract training fatigue.

3. SG advocates for transparently addressing the discrepancy in experience between SPs at the start of the training. She also invites questions from the newer SPs. She welcomes mentoring from the more experienced SPs, by asking for their comments and/or pairing them up to do practice role plays with the less experienced SPs.

4. SPE LL notes that she makes a quick assessment in the initial stages of the training and may divide the SPs up into groups. The more advanced SPs will work on one aspect of the task while the newer SPs will focus on another part of the task.

Challenge 3

How do I help SPs achieve and maintain the required level of role readiness, especially with those who are struggling?

Solutions

1. LP suggests making sure that the SPs are thoroughly briefed at the start of the training helps to clarify and frame SP expectations about role readiness. She notes: "We ask a lot of our simulated patients and I think we sometimes take that for granted or we forget about the fact that they don't have as big of a picture of the learning session as we do."

2. Spending a bit more time with SPs who are struggling to get to the required level is recommended by SG who says: "Sometimes I get a gut feeling that the SP is not going to be role ready. I find if I don't follow up on that, they're often the people who struggle and have issues, so I try to listen to myself. I often ask somebody that is struggling to stick around and maybe have another attempt at working through or have a chance to talk to them and see if they need more time or something. I usually regret when I don't do that."

3. LS has "to remind SPs not to fall into the 'jargon trap' because I think we've all gotten so used to the medical terminology that if one of the students addresses us with medical terminology, we answer, whereas the lay person patient very often would not understand that lingo. One of the challenges for me is to keep on reminding SPs to not to respond to this jargon if it doesn't fit the role of the person that they are portraying."

4. SPK recounts that some of his SPs have difficulty remembering details and give too much or too little information to the learners. He counteracts this tendency with lots of practice, so the SPs feel comfortable answering unanticipated learner questions and behaviors and are accurate and consistent in their responses.

5. RM recalls that it can be difficult to monitor all SPs for quality during a simulation session. He has developed a strategy of "prioritizing which events need a lot of quality assurance and if it's a formative event, and you have really good SPs, they probably don't need as much quality assurance".

6. LP recognizes that there may be sometimes a mismatch between her assessment and how the SPs are feeling and she has learned to check in with her SPs. She notes: "My job is to make sure that SPs are confident in their portrayals and I always wrap up dry runs by saying: 'Okay, we signed you all off. You're all good to go. But, just because

I sign you off and I'm confident, it doesn't mean that you're confident. So, if between now and exam day, you want one more practice, just phone me. We can do it on the phone in 5 or 10 minutes'. I've watched SPs where I'm thinking they've got it and they turn and look at me and they're like, 'I do?' Just because the trainer thinks SPs are good to go, they may not be".

7. Having SPs look at the role from a different perspective can help. SG describes this type of strategy: "Sometimes what I do is I reverse the roles so if somebody is struggling with the portrayal of the role, I have them be the interviewer so they get to ask the question and I think sometimes that changes the way people understand the role. It puts it in their brain in a different way, especially if people are struggling with memory, I think it helps".

Challenge 4
How do I equip my SPs to deal with the unexpected?

Solutions

1. Experiential practice that builds the ability of SPs to think critically and work their way through the unanticipated has proven to be an excellent strategy for SG. She notes: "I'm a huge believer in experiential learning. If people are struggling with something, the more times you can have them on their feet doing it, the better. I think it's because if people have to think through it and actually do it and if they're struggling with something to have a chance to do it again and have a better approach for it – I think it increases people's confidence if they get a chance to actually do it. They go away feeling like they've got some sense of mastery. You must be careful that you don't do it too many times or SPs might feel overwhelmed. Having the chance to practice is valuable."
2. Draw on SPs' experiences of what learners might do and ask experienced SPs to portray different types of learners.
3. Enlist the help of SMEs who understand and portray the range of variations in learner behaviors in an authentic manner.
4. Practice, practice, practice!

Challenge 5
How do I work with SPs who appear to be defensive or won't buy-in or who cannot/will not standardize their behaviors?

Solutions

1. Providing clear expectations and benchmarks for your SPs about role readiness along with clear feedback during the dry run are effective strategies for addressing this challenge. LP notes: "Base your comments on what the SP said or did and how that measures to benchmarks,

point out objectively what they did wrong with specific examples. There's no argument from the SP then – they can't argue with those points. And so again, when you think of the best interest of the candidate, if an SP cannot receive this and adjust, then we can't have them continue in the role, especially in a high-stakes exam. If I determine that somebody isn't role ready, I don't usually address it in front of the other SPs. I will have a private conversation with them afterwards".

2. JP comments on the on-going value of feedback throughout the training: "I want to be able to give the SPs individualized attention about how they're doing. I'm always very upfront with them. Not in the group. I don't usually address it in front of the other SPs. I let the whole dry run happen and then I ask them if they can stick behind and then I will have a conversation with them".

Conclusion

SPs must be trained in a safe manner in order to provide authentic role portrayal that supports the learning objectives of a session. There is no evidence to suggest that there is one right way to train SPs. In this chapter, we offer a broadly conceived 3-stage model that captures many common practices of the SPEs we interviewed and is also supported by the ASPE SOBP. Although not all elements may be applicable to your context, this flexible model can provide a structure for you and a rationale to those who fund your work as to why each of these stages is integral to the creation of high-quality SP role portrayal.

Appendix 7.1

Trainer Lesson Plan

Pre-Training	
Course Name	
Faculty/Subject Matter Expert Name and Contact	
Goal and Learning Objectives	
Level of Learner	
Learning Domain	
SP Simulation Specific Objective *(a course objective should be related)*	
Event Date and Time	
Description of SP Simulation • Location (Center or remote) • Practice / Teaching / Demonstration /Assessment • Number of Cases • Format (encounter length, feedback, post encounter, etc.) • Learner to SP ratio • Patient Profile (gender, age, ethnicity, physical description, etc.) • Faculty onsite / remote • Exam Room Set-up • AV/IT Resources	

Case Material Development
•   Patient profile
•   Research concepts for essential for case comprehension
•   Case (Create or Revise)
•   SP Checklist
•   Patient Chart
•   Laboratory Results
•   Post Encounter Resources and Props
    o   Moulage
    o   Equipment and supplies
    o Audio or video enhancement	

SP Recruitment Database query Identify training dates and number of sessions needed Confirm and schedule SPs	
Create Training Agenda and PowerPoint *(refer to training protocol to create agenda)*	
Schedule Dry Run with Faculty/Subject Matter Expert	
Create gold standard video (*case portrayal or instruction*)	
Create SP packets	
Create sign-in sheet	
Create evaluation	
Training Session	
Set up time	
Facilitate Training	
Note case questions and changes	
Distribute and collect evaluation	
Post Training	
Report/discussion case questions to faculty/subject matter expert	
Analyze evaluation	
Load case materials into data management system (if relevant)	
Post case materials on shared drive	
Meet with Admin Team for final updates	
Real-time Session	
Conduct Orientation • Update SPs (case changes, format, etc.)	
Assign SPs to Exam Rooms and QA • Review exam room set up • Duplicate QA forms	
Debriefing • Develop standard questions	

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Appendix 7.2

Interactive Training Techniques

Technique	Rationale	When to use?
• Have SPs read through the case as a group	• Allows everyone to hear all the details of the case • Starts to reinforce the information that the SPs must retain. • Allows everyone to speak • Allows you to listen to and start to assess vocal abilities of SPs	• At the beginning of the training when the case is introduced
• Introduce spot quizzes	• Reinforces and solidifies retention of material • Allows SPE to assess if home study has been done • Makes expectations explicit for SPs about the level of their preparation	• After home study • Anytime during the training, especially after a chunk of information has been introduced
• Check in with SPs about their knowledge and/or previous experiences related to the case	• Allows SPE to assess SPs' experiences and triage where attention should be focused	• From the start of the training and when new information is introduced
• Incorporate improvisational techniques (see SPE Perspectives Box 7.18 for some specific examples)	• Promotes active listening, teamwork, and cooperation • Prepares SPs to adapt within the structure of the case to unexpected learner behaviors • Allows you to observe the adaptability of the SP	• At the beginning of the training or dry run to warm everyone up • With new groups of SPs to break the ice. • At any point in the training when energy is waning
• Introduce performance techniques (see SPE Perspectives Box 7.18 for some specific examples)	• Promotes a holistic understanding of the person that the SP is representing • Taps into the SP's creativity and imagination • Promotes integration of cognitive, affective and psychomotor domains	• At any point during the training
• Ask SPs to take their own notes	• Can help SPs retain and recall information	• Throughout the training
• Provide a list of questions that learners might ask, based on actual previous encounters	• Provides concrete examples for SPEs and SPS. • Helps the SPE to think in a more broadly based way of how to prepare SPs. • Can be used by SPs to review at home and to role play with other SPs portraying the same role • Can boost the confidence and preparedness of SPs by dealing with questions that may not be in the case	• After the case content has been covered and as the SP is starting to integrate the content with embodying the role.
• Create performance assessment forms that make explicit the criteria for assessing SP role readiness	• Promotes psychological safety by making expectations clear and transparent for all • Can be used as a tool by SPs when they are observing other SPs to promote their understanding of the role	• During the briefing when you are clarifying expectations for all about role readiness. • When you are assessing role readiness
• Encourage SPs to ask questions	• Allows you to assess where you are clear or unclear and/or where gaps are for SPs	• Have a shared visual field that SPs can write questions on at any point in the training
• Ask questions based on the scoring items	• Ensures SPs know how to answer anticipated questions • Can identify further gaps in the role if the SP does not have answers for these items	• Once you have done an initial review of the material and you are starting to guide the SPs to synthesize material
• Explain the underlying rationale for the disease state	• Ensures SPs have a holistic understanding of why they might be feeling the way that is described so that they can authentically portray the person that they are representing	• At the appropriate point in the training
• Encourage SPs to imagine how others might describe the person the SP is portraying	• Enhances the humanity of the role portrayal by grounding the person being portrayed in an authentic and holistic manner • Taps into the creative imagination of the SP • Promotes empathic understanding	• Throughout the training
• Connect the person/situation to the SP's experience	• Draws on the individuality of the SP • Allows for co-creation of the role portrayal with the SP • Allows both the SPE and SP to assess what details can be drawn on and what are not appropriate for the scenario • Acknowledges the expertise of the SPs and the value of their lived experiences	• Throughout the training
• Have SPs play the role of the learner	• Promotes empathic understanding by allowing SPs to experience the role from the learner's perspective • Can help with memorization	• As the SPs are starting to move from discussing the role to portraying the role
• Incorporate movement and stretching	• Allows SPs to release, relax and refresh uncomfortable situations or emotional affects.	• At any point in a training, especially if you notice energy flagging or if there needs to be a change of pace or if SPs have been in uncomfortable positions or have had to maintain intense affects
• Introduce mental imaging	• Allows SPs to warm up and review role in a gentle and private manner • Can reduce anxiety and errors and increase confidence	• Once the SPs understand the role • As SPs are starting to step into character • Before dry runs

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How to Train SPs in 10 Steps

8

Gayle Gliva-McConvey and Gail E. Furman

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.

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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

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, rein-

forcing 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

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.

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.

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.

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

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			

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Cultivating Compassionate Communication with Clinical Competence: Utilizing Human Simulation to Provide Constructive Feedback to Learners

9

Lou Clark, Gayle Gliva-McConvey, and Adam S. Richards

Abbreviations

ASPE	Association of Standardized Patient Educators
CPX	Clinical Performance examination
EEC	Essential Elements of Communication Scale
HIV	Human Immunodeficiency Virus
MIRS	Master Interview Rating Scale
NMCCS	The New Mexico Clinical Communication Scale (newer version of EEC scale)
OSCE	Objective Structured Clinical Examination
PPI	Patient Position Interaction
SEGUE	Set the stage, Elicit information, Give information, Understand the patient's perspective, and End the encounter
SIU	Southern Illinois University
SP	Simulated/Standardized Patients
SPE	Standardized Patient Educators
UIC	University of Chicago
USUHS	Uniformed Services University of the Health Sciences
WRNMMC	Walter Reed National Military Medical Center

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Introduction: The Compassion Crossroads and SP Feedback

If you were asked to identify the single most critical healthcare problem today, what would you choose? Not surprisingly we identify among top choices – miscommunication in healthcare contexts and ask you to consider what we name *The Compassion Crossroads*. The Compassion Crossroads is the intersection in which a provider's intent to offer genuine caring to people suffering from illness is met with overscheduled days stuffed with too many patient visits, electronic health record systems ineffective for documenting complexities of the patient visit, and where myriad billing codes at various levels are designed to advantage insurance companies above patients and their providers. A day at The Compassion Crossroads frequently concludes with hurried documentation or charting, often done late into the evening after the clinic is closed, a price paid for spending too much time with patients. It must be acknowledged at this point, that this take on The Compassion Crossroads is offered from an American point of view. While this iteration of the problem may be specifically American, no doubt each country and society have their own complicating factors that may come between healthcare providers practicing compassionate care and communication with patients.

In America, The Compassion Crossroads are complicated by the fact that the U.S. has no form of universal health coverage [1]. As patients and charts begin to pile up in the crossroads, burnout and injuries occur. Inadvertent miscommunication and misinformation contribute to the over 400,000 medical errors affecting patients that are made annually in the United States [2]. Physicians are also suffering: 50% of doctors in the U.S. report experiencing burnout, which may manifest as exhaustion and reduced effectiveness in the workplace [3]. Physician lives are at risk due to undiagnosed depression associated with burnout which has, in unfortunately increasing instances, led to suicide [4]. This is not due to a lack of caring clinicians; rather this is due to healthcare systems in

the U.S. that are costly but ineffective, overtaxed and hurting all stakeholders—especially patients and providers [5]. It is well documented that physicians encounter these challenges, which interfere with professionalism and integrity of care, as medical school [6]. So, as Human Simulation Educators, how may we approach communication skills training to support our learners in successfully navigating The Compassion Crossroads they will face in practice? We may engage in collaborative curriculum design or redesign with other institutional stakeholders to create human simulation learning activities that place learners and SPs in conditions more representative of those they face in practice noted above. As SP Educators (SPEs) we support learners by training Simulated Patients (SPs) to provide feedback constructively on a consistent basis, utilizing rigorous processes that include meticulous preparation, routine observation, and creativity. This is purposeful work as evidence shows SP feedback to learners makes a significant, beneficial impact in their learning [7]. This is critical work. Once our healthcare learners depart from simulated experiences into clinical practice, it may be a long time or never again that they are observed and receive feedback on clinical communication skills from the patient perspective.

Chapter components are intended to equip SP Educators (SPEs) with the knowledge and practical tools necessary to train SPs to provide constructive feedback in support of learner communication skill development as they prepare to navigate the Compassion Crossroads. This chapter offers the following for use in training SPs to provide constructive feedback to learners: key definitions of common terms and concepts, a three-stage model for SP feedback training process, exercises and tips for use in SP feedback, and examples. Recognized communication skills assessment tools are also highlighted, as well as unconscious bias which is a critical area for SPEs to include in feedback training and routinely in all training. Additionally, the ASPE Standards of Best Practices applicable to Domain 3 are identified and discussed [8]. Finally, it is common knowledge that familiarity with theatrical principles and pedagogy has been helpful to SPEs—both with and without performing arts backgrounds— in coaching SPs for years [9]. So, we close with novel approaches that draw on theatre and performance pedagogy—including Medical Improvisation supported by program evaluation data—in partnership with SPs to support learners in honing their clinical communication skills.

Challenges in Successfully Navigating the Compassion Crossroads

Providing feedback is a complex and nuanced process that must go beyond simple observations and scripted "I felt" statements for several reasons. First, there is no single accepted definition or interpretation of what competent and compassionate communication should look, sound and feel like. What may seem competent and compassionate to some patients will not feel so to others due to any number of issues which may be informed by (but are not limited to) personal preference, gender, sexual orientation, age, cultural practices, religious beliefs, educational background, race, ethnicity, and socioeconomic status. Additionally, what may seem like abrupt communication to patients may, in fact, be a life-saving compassionate act from the point of view of healthcare providers (e.g. brief statements and/or commands in an Emergency Room setting may feel terse to patients but are necessary due to life saving actions that must be made quickly). Second, and related to the first reason, there are no accepted best practices or a single protocol in healthcare education for training learners to communicate both competently and compassionately. Third, SPs may be challenging to standardize in terms of reliably evaluating learner communication skills as they are inadvertently influenced by unconscious bias as a result of their own patient experiences or experiences of loved ones. Finally, no two learners have the exactly same style, the same successes, or the same challenges when it comes to human communication. So, learning and honing clinical communication skills is a complex process because it is a highly individualized process.

The fact that learner engagement and success with communication skills is a highly individualized process necessitates that SPEs acquire a base knowledge of SP Methodology in relation to healthcare communication curriculum broadly and specifically at their home institution. It is the SPE's responsibility to approach training holistically and to coach their SPs to consistently provide constructive feedback and to reflect on their own biases in relation to how they evaluate learner communication skills.

Concepts and Terms to Reinforce in Training SPs to Provide Constructive Feedback

In order to establish consistency when training SPs to coach and assess learner clinical communication skills, it is critical to establish a common vocabulary of concepts and terms at your home institution. Generally, this shared vocabulary should reflect an emphasis to address *how* or the *style* with which the learner communicates as opposed to commenting on clinical content of individual cases. More specifically, it is essential that the shared vocabulary support specific learning objectives for learners. Ideally, the verbal and/or written feedback your SPs provide to learners should speak specifically to learning objectives and be tied to language from the curricular instrument used to assess their communication skills. In this section of the chapter we will define and explore key terms and concepts SPEs may use in training SPs on how to provide constructive feedback on learner communication skills rooted in observable behaviors.

Observable Behaviors

Observations are the currency of feedback and without them the process becomes 'feedback' in name only. [10]

The statement above by Dr. Ende from his germinal article published in 1983—Feedback in Clinical Medical Education—refers to the fact that feedback is only effective and meaningful to learners if it is rooted in observable behaviors. Observable behaviors are those performed by the learner that are literally *witnessed-viewed or seen*-by another person responsible for providing feedback to them.

Prior to the early 1980s medical students were often graduating without having been observed and assessed in clinic; or, when they were observed, observations of their performance were often not literally fed back to the learners themselves [10]. Since that time, healthcare educators have sought to correct this problem. SPEs and SPs are an important part of this process in providing feedback on communication skills to learners from the patient perspective. SPEs must Train SPs to provide feedback to learners on what they literally and actually observed as opposed to what they interpreted or assumed. Or, the Mirror exercise in this section reinforces, training SPs to provide feedback in a more **objective** versus **subjective** way so that it is based on observable behaviors. For some SPs this will be a more intuitive process than others depending on their personality and preferred learning style(s). Box 9.1 provides a simple exercise that highlights and reinforces this concept that may be used in feedback training with SPs which involves each of them looking into a mirror.

Box 9.1 Mirror Exercise

Looking into a Mirror Exercise – Training Observable Behavior Concept

- Provide each SP with a mirror of any size
- Tell them this exercise is related to providing feedback to learners
- Ask them to silently take a good look at themselves in the mirror
- Request they silently write down one observation about themselves
- One by one have each SP share their observation as you write them on a board
- Lead review of the observations highlighting interpretive vs. literal language *(it is helpful to cross out interpretive language with a different color marker on the board so they can see and discuss the difference between interpretive and literal).*
- Facilitate SPs review of rest of observations to verify understanding of concept

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It is helpful to conduct this exercise in groups of 6–10 SPs so there are a variety of observable behaviors named. Typically, group members give answers ranging along a spectrum of most literal to most interpretive, with many responses in the mid-range. More literal SPs may provide answers such as blue eyes or light brown hair. SPs with a tendency to use interpretive language may provide answers such as "eyes that stayed up late for rehearsal and got up too early for this training" or "sassy lip gloss". It is fun for the group to see and hear the differences in this language, and SPEs should emphasize that while the latter is descriptive language—the others in the room would likely never agree on the same response if we did not know the individual who wrote it. In other words, what might be sassy lip gloss to one person may not be sassy lip gloss to another. The goal by the end of the exercise is to get all SPs to understand that providing more literal responses in verbal feedback sessions with learners is optimal as it means they are acting as a human mirror—reflecting back what they observed or literally saw in the encounter as opposed to assuming or interpreting learner behaviors. When SPs root their feedback in observable behaviors it is easier for learners to understand the content and SP feedback is constructive.

Constructive Criticism vs. Constructive Feedback

I've got some constructive criticism for you…

If you just read these words and debated whether or not to continue reading because your heart fluttered, and your palms got sweaty as you remembered a moment from your youth when someone in your life (e.g. teacher, parent, coach, friend, someone whose opinion mattered) gave you their version of constructive criticism which shut you down from doing something you love for a while–or longer–you're not alone! One that comes to mind for the first author occurred when she was told by a kindergarten gym teacher that she was not coordinated. She didn't pursue sports for several years until she changed schools. Fortunately, participating in sports was mandatory and she went on to enjoy them again and even play competitively in high school. She shares this example in the spirit of solidarity. Few who read these words will have escaped the negative impact of badly framed "constructive criticism."

This book is about human simulation and just as it is with all simulation activities, the goal here is to create a safe learning environment in which we may consider what constructive feedback is and what it is not. First, it is feedback-not criticism. Specificity is one of the hallmarks of effective feedback in healthcare education [10]. Let's explore the definitions below which are all from the same dictionary published in 1980 [11]:

- *Constructive* (adj.): helping to construct (or build, form, devise); leading to improvements or advances; formative; positive [constructive criticism] …
- *Criticism* (noun): the act of finding fault; censuring; disapproval…
- *Feedback* (noun): a process in which the factors that produced a result are themselves modified, corrected, and strengthened by that result…

When we take each definition one at a time, they read in a straightforward manner. However, in looking at the definition of *criticism* after *constructive* we see that they contradict one another. In reading the definition of constructive, one would naturally accept that constructive criticism was an extension of the definition of constructive provided with the intention of improvement. However, when placed in direct opposition to the definition of criticism we begin to understand why we start sweating when we hear the phrase constructive criticism—it is passive aggressive. Just when we think we are about to hear something positive; it is followed by a negative expression or tone. Not only is that jarring, it is confusing. We also realize how pervasive this term constructive criticism is in society as this dictionary dates back nearly 40 years. In further considering these terms, let's examine constructive as a modifier for feedback. In putting those two words together the negative semantic connotation present due to the term criticism is eliminated. Additionally, and relevant to human simulation work, the term feedback directs SPs to comment on observed factors whereas the definition of criticism is more subjective as finding fault could imply disapproving of factors that were or were not directly observed. As discussed above and related, it is essential that SPEs train SPs to provide feedback to learners on observable behaviors as the root of effective feedback. In melding these concepts the following definition of constructive feedback applicable to human simulation is offered as: A formative process in which the SP builds verbal or written statements based on educational objectives in relation to observed performance of the learner to support them in strengthening or modifying specific behaviors contributing to their skill development. All feedback SPs are trained to provide to learners should be constructive feedback whether it is positive or negative.

Positive vs. Negative Feedback

Since it is now established that SPs should always be trained to provide constructive feedback, next SPEs should consider the terms positive versus negative in relation to feedback. Both positive and negative feedback are fine to provide for learners as long as it is done in a constructive way by SPs. Figure 9.1 is taken from a feedback training provided as a "train the trainer" workshop for an SP Educator team.
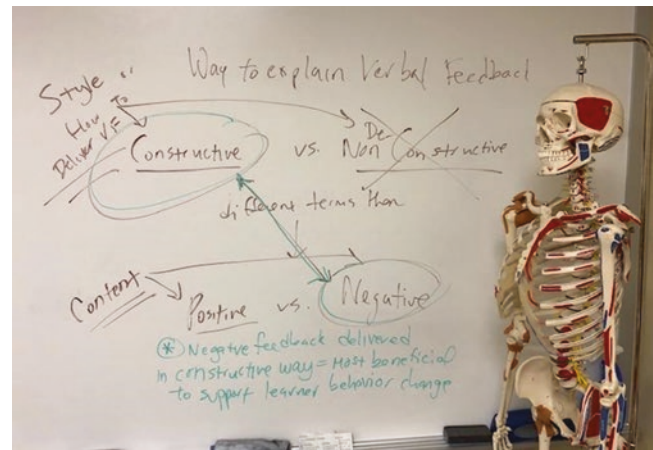
Fig. 9.1 Training Board

Figure 9.1 illustrates the relationship between constructive vs. non-constructive feedback and positive and negative feedback. Namely, negative feedback delivered in a constructive manner is the most effective way to support the behavior change of learners.

As Fig. 9.1 demonstrates, it should be emphasized in training SPs that constructive vs. non-constructive feedback is about the *style* or *how* the feedback was given. Whereas positive versus negative feedback reflects the *content* of the feedback which is based on observable behaviors. In the course of this foundational lesson, it is recommended to ask SPs to recall a time when they were learning something new—whether it was in a formal or informal setting. Guide them in recalling how they learned this new skill, and what feedback was provided along the way. During this *Recall a Time you Received Feedback Exercise*, SPs nearly always agree that they learned the most from mentors and teachers who provided negative feedback but did so in a constructive manner or style. Instructions are outlined in Box 9.2.

In discussing these experiences encourage SPs to explore situations when they received feedback, both constructive and non-constructive. Some SPs will want to share experiences of when they provided feedback rather than received it. SPEs are encouraged to redirect SPs with a tendency to do this and have them focus on recalling a time when they, themselves were the recipients of feedback. It is important for SPs to recall their own feelings during a time that they received non-constructive feedback so they recognize the negative feelings that may be associated with non-constructive feedback. Through these discussions we identify both constructive and non-constructive qualities of feedback. Constructive feedback qualities identified by SPs often match several routinely identified in medical education literature [10, 12] which are included in Table 9.1.

This exercise and discussion allows SPEs to clarify and distinguish these terms and establishes a basic, common knowledge of feedback principles. From there SPEs may

Box 9.2 Recall Exercise: Training Negative Feedback Provided Constructively is Optimal for Learners Concept
Recall a Time you Received Feedback – Training Negative Feedback Provided Constructively is Optimal for Learners Concept
- Ask each SP to silently recall at time when they received feedback in the most neutral way possible (e.g. do not prompt them to provide either positive or negative feedback)
- Tell them this exercise is related to providing feedback to learners
- Ask for a volunteer to share their feedback story with the group
- Next, ask group members what qualities or characteristics they heard reflected in the story that influenced the teller's experience as positive or negative
- Begin to write the qualities on the board

During the discussion, ask the group *if they know what type of feedback is most effective to learners*. If they do not know, emphasize that it is negative feedback delivered in a constructive way that teaches us the most as learners – this is the heart of the lesson.

Continue to have SPs share their observations as you continue to write the feedback characteristics on the board as time allows

Review the characteristics named on the board and highlight once more that negative feedback provided in a constructive manner is optimal for learners-to verify understanding of concept

Table 9.1 Characteristics of constructive feedback

Characteristics of constructive feedback provided to healthcare trainees:
Timely and expected
Specific rather than general
Behaviorally based/rooted in observation
Relevant to learner level and learning objective(s)
Provides information in non-judgmental tone and style
Focus on providing quality information rather than quantity (too much information)
Focus on the task not the individual
Feedback includes the first person ("I") within the statement, so SP takes ownership of the perspective.
Offer a suggestion for behavior change or reflect a specific action when emphasizing positive content to reinforce/strengthen desired behavior

continue to build and develop the verbal and written feedback skills with SPs. Finally, considering the characteristics of feedback through the use of story or narrative is an effective training tool as SPs may internalize the positive feelings associated with receiving constructive feedback versus the negative feelings associated with receiving non-constructive feedback. This enables SPs to craft verbal and/or written feedback in an intentional and rigorous way while considering and empathizing with feelings the learner may experience in receiving their feedback, because the SPs have experienced related feelings in the training session.

Sympathy vs. Empathy vs. Compassion

Sympathy, empathy, and compassion are among the most used and least specifically understood terms in healthcare communication skills training and education. This is, in large part, due to the fact that many stakeholders in the educational process assume that all involved use the terms in consistent and common ways. This assumption bleeds into SP training and SPs ability to provide effective feedback which supports learning objectives and learner assessment. These terms used broadly may manifest as SP feedback statements to learners such as *"I felt understood when you provided empathy"* or *"I felt unheard when you did not treat me with empathy"*. While the first statement is positive, it is not constructive. This type of statement is empty of substance and is essentially the emotional equivalent of *"Good job!"* when offered without specific, supporting evidence. There is no stated observed behavior to indicate what observed behavior the SP experienced that resulted in them feeling they were the recipient of empathy. An equivalent constructive feedback statement could be: *"I felt listened to when you looked me in the eyes and remained silent as I shared my story about my breast lump."* In this revised feedback version, the observable behavior (e.g. looked me in the eyes) is named in support of the SPs feelings (e.g. listened to) along with the context (e.g. patient has a breast lump). The revised statement, rooted in an observable behavior, implies empathy. The second statement— *"I felt unheard when you did not treat me with empathy"*—comes off as simply criticism as there is no specific observed behavior to support the resulting negative feeling. Additionally, no suggestion to improve behavior change is supplied which is likely to leave the learner frustrated and confused. An equivalent constructive feedback statement could be: *"I felt unheard and alone when you looked down at your clipboard rather than at me and took notes as I shared my story about my breast lump. I would have preferred you stopped writing and looked me in the eyes as I shared my story so that I felt listened to."* In this revised feedback version, the specific observable behavior (e.g. looked down at your clipboard rather than at me and took notes as I shared my story) is named in support of the SPs feelings (e.g. unheard and alone) along with the context (e.g. patient has a breast lump). This statement also includes a specific suggestion for behavior change, which results in a new feeling outcome for the patient, so it is offered in a constructive style to

support behavior change. Notice in this second statement, the word empathy is not used. It may be assumed that the SP did not feel empathized with, but it is unnecessary for her to say so, because she has offered specific feelings rooted in observed behaviors. This is more meaningful and helpful than referencing a generic lack of empathy without supporting behaviors. The above example illustrates the destructive potential of lack of specificity when teaching SPs to provide emotion-based feedback. We offer the Waste Basket Exercise in Box 9.3 to include in SP training sessions to emphasize the concept of providing specific, rather than general feedback to learners. This exercise is in preparation for more advanced feedback training including how to distinguish between words associated with emotions such as sympathy, empathy, and compassion. It is critical that SPEs and SPs provide specific versus general feedback on, as well as have a common understanding of the terms sympathy, empathy, and compassion including how to distinguish them from one another in order to provide constructive feedback to learners.

- *Sympathy*: "Sympathy is the act or capacity of entering into or joining the feelings of another person. A deep sympathetic feeling in medical care can sometimes interfere with objectivity in diagnosis and treatment..." [13]
- *Empathy*: "Empathy…is the act or capacity of appreciation of another person's feelings without 'joining' them… Empathy…is a cognitive activity distinguishable from sympathy that is more of an affective response to a patient's misfortunes… [13]
- *Compassion*: the word compassion, derived from Latin, literally means a "shared suffering" [14]. Social scientists have evolved this meaning by observing interpersonal encounters in health related settings into compassion as an action consisting of the following three subprocesses—*recognizing*, *relating*, and *reacting* [15]. Recognizing implies an interpretive or meaning-filled component to the process that is not evident in simply noticing (e.g. literally looking or seeing). The second step, relating, goes beyond feeling and connecting as a process that honors both the affected feeling and also the cognitive implications of connecting as relational. The third step, reacting, occurs when people actively engage with, rather than simply respond, to those in need. It should be noted that these steps are not necessarily linear and may occur in any order. Collective compassion occurs when multiple stakeholders collaborate by recognizing, relating, and (re)acting to the suffering of a member(s) [16]. It is helpful to consider collective compassion in relation to team or group training in healthcare. The key distinguishing feature of compassion from empathy is that it requires tangible action to alleviate the suffering of another as opposed to empathy in which the action is cognitive in nature.

Box 9.3 Wastebasket Exercise

Wastebasket Exercise – Training SPs to Provide Specific vs. General Feedback Concept

- Set up a wastebasket in the center of a room and have 8 crumpled-up paper balls on hand
- Ask for an SP volunteer to participate, and then ask them to stand approximately 10 feet away from the wastebasket; the other SPs will observe and join in coaching
- Provide the following instructions to the SP volunteer: *Here's a paper ball. Stand here, close your eyes and throw the ball into the wastebasket. Don't open your eyes to peek at its location. You will receive more paper balls after some feedback on your throwing technique.*
- Provide intentionally non-constructively framed, general feedback to the SP after s/he throws the first ball such as: *"Good throw, however, other SPs have done better the first time." Or "Do it the same next time and you will do better." Or "Perhaps you should study the position of the wastebasket better next time."*
- Provide SP volunteer with another paper ball and ask them to throw it. Watch how there is little to no improvement. Ask SP how he/she feels about the feedback after the first throw and if it helped to prepare them to throw the second ball. Ask other SPs how they would feel. Elicit feelings of vagueness, under-utilization of specifics, and being compared to others.
- Now, provide SP with constructively framed feedback from their second throw such as; *"You got closer this time, next time aim the ball more to the left (or right), but with the same (or more, or less) pressure. Perhaps consider a bigger arch this time."*

Continue to provide specific feedback after each throw (balls 3–8) and encourage other SPs to do the same or trade-out so all SPs can practice providing specific vs. general feedback. Review the concept that the first SP did not receive specific constructive feedback and once s/he did, the skill and technique of throwing improved.

Put simply these three words may be defined as:

- *Sympathy*: Feeling with someone by joining them in their feeling(s).
- *Empathy*: Appreciating the emotion(s) of another without joining in their feeling(s).
- *Compassion*: Recognizing, relating, and reacting to alleviate another's suffering.

Distinguishing these three words is critical in coaching leaner communication skills, as it is clear that the first two words are rooted in feelings while the third, compassion, is rooted in action. Sympathy is not a desired response from healthcare providers to patients as it signals an inability to distance oneself from the patient in order to maintain some sense of objectivity when providing care. Sympathy also may manifest as the act of feeling sorry for someone else, which is another reason why it is undesirable in healthcare settings. While most patients want some sort of comfort, none want to feel patronized. Expressed sympathy in the patient-provider encounter runs the risk of making patients feel patronized or pitied. While empathy is more desirable then sympathy, it is still an emotion-oriented process rather than action-oriented process.

As it is already established that SPs should be trained to provide feedback on observable behaviors, it important to establish definitions for actions that are often considered the most subjective when coaching healthcare learners on clinical communication skills. For an SP to truly observe empathy in an encounter, a learner would need to provide a statement articulating their ability to empathize with the SP's feeling(s). Otherwise, how would the SP know for sure that a learner was providing empathy? An SP may interpret certain nonverbal behaviors and perhaps tone of voice as demonstrating empathy, but without specific guidelines established in advanced, how does an SP truly know that they are the recipients of empathy? Whereas, a learner may provide any number of interpersonal verbal or nonverbal communicative responses to demonstrate (or show) compassionate action toward an SP. If the SP is working with a team of learners, it is ideal for multiple team members to collaborate in demonstrating a collective compassionate response rooted in actions of recognizing, relating, and reacting to an SP portraying a suffering patient [16]. By adopting precise definitions of empathy and compassion, SPEs can better distinguish the terms themselves in order to train SPs to be specific in identifying related learner behaviors and articulating their observations in verbal and/or written feedback. This will better prepare SPs to be an effective part of the educational team.

SPs and the SPEs who train them are integral parts of health education professions training teams. Traditionally, clinical faculty who observed learners' behavior and provided feedback was from their perspective as medical experts. This is certainly essential for learners to develop their clinical and procedural skills. However, the best medical experts cannot provide feedback from the patient perspective in the same way(s) that SPs can offer it. While healthcare providers are also patients, in training activities it is understandable that they are focused on the clinical and procedural skills that they are teaching and assessing. For this reason, it is recommended that SPs provide feedback on learner communication skills from the patient perspective on observable behaviors, while the medical or content experts provide feedback from the standpoint of their disciplinary expertise. In this way feedback may become an art in which learner, clinical expert, and SP collaborate in service of educational objectives with the SP as a fully integrated educational team member. For SPs to undertake this important role, they must be rigorously trained, coached, observed, and given feedback from their SPEs.

Preparing, Training, and Ensuring Quality—A Three-Stage Model for SP Feedback

We recognize training processes may differ in your institution, and not all processes are applicable to every situation and the order in which processes are applied may vary.

Having considered this, we propose a three-stage model that encapsulates the stages common to many of these processes, including: Preparing for training; leading the training to prepare SPs to provide constructive feedback to learners; and ensuring on-going quality of SP work. Within each of these stages are steps that will be discussed in this section of the chapter, (see Fig. 9.2).

Stage 1 Preparing
Step 1: Identify Communication Curriculum
Step 2: Create, Use, Gather Training Materials
Step 3: Develop a training plan

Stage 2 Training
Step 1: Principles of Feedback
Step 2: Components of Feedback
Step 3: Feedback vocabulary and responses
Step 4: Challenging feedback
Step 5: Standard Framework of feedback
Step 6: SP Bias Training
Step 7: Practice

Stage 3 Ensuring Quality
Step 1: SP Self-reflection
Step 2: SPE Reflect on SP performance
Step 3: Seek feedback from other sources

Fig. 9.2 Steps and stages of feedback training process

The Three Stage Training Process in Relation to the ASPE Standards of Best Practices

The ASPE SOBPs [8] were designed to assist and support SPEs with practical guidelines when working with Human Simulation. Throughout this chapter we are discussing approaches for Doman 3 Training SPs, specifically in relation to providing constructive Feedback. We are referencing the ASPE SOBPs at this point in the chapter, to highlight the connections between them and this feedback model. The principles of these SOBPs are provided in Box 9.4 for your convenience.

Box 9.4 ASPE SOPB for Feedback
- 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 learning.
- 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.
- 3.4 Training for completion of 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.
- 3.4.6 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.
- 3.5 Reflect on the training process
- 3.5.1 Reflect on one's own training practices for future improvement

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Stage One: Preparing

Anyone who has ever planned a training workshop will tell you that it takes organization, focus, and a lot of creativity. It requires the development of a set of activities that promote learning, stimulate discussion and is relevant, productive and memorable. Planning for consistent SP feedback delivery will ensure learners receive constructive feedback that will support them in effectively changing their behavior or reinforce desired behaviors. In Stage 1, we provide three steps with supporting actions to adequately prepare for SP feedback training *(see Fig. 9.3)*.

Step 1: Identify Communication Skills Curriculum and Assessment Tools

Like outstanding patient care, at its best communication skills curriculum for healthcare learners is a partnership comprised of multiple perspectives which are all valid and important rather than a hierarchical model in which a single voice or method is privileged. If leaners are trained by only one voice—either healthcare expert or patient voice—they are disadvantaged in learning the clinical communication skills needed to navigate the ever increasingly complex landscape that is the clinical setting. For this reason, it is essential that SPEs and clinical experts partner together to create educational objectives pertaining to learning clinical communication skills.

Action i: No One Way—Communication Skills Curriculum in Healthcare Education—Consult with Clinical Faculty

Encouraging multiple stakeholders to participate in co-creating communication skills curriculum is appropriate given the current landscape in that there is no single, accepted best curricular model for teaching these skills to health professions learners. There is also no one standard assessment tool for measuring communication skills in healthcare training. Communication skills programs for learners are stronger, more robust, and more effective if SPEs are collaborating with course directors and faculty on curriculum development including SP cases and training as well as assessment tools.

Why?

Often, clinical faculty have so much essential content to provide and assess in short time periods with both undergraduate and graduate learners. Many clinical faculty members express that they wish they had more time in the curriculum to focus on communication skills training. Additionally, when it comes to clinical communication skills there are may be behaviors that clinicians do not notice due to this lack of time, the need to focus on other important aspects of the clinical encounter, and perhaps their own training not emphasizing this area. Faculty members express, informed from their own clinical experience, that communi-

Fig. 9.3 Stage 1 Preparing

Stage 1
Preparing

Step 1: Identify Communication Curriculum

Actions

☐ Consult with Faculty
☐ Consult with other SPEs
☐ Identify Communication Framework for Teaching and
Assessment.

Step 2: Create training materials

Actions

☐ Blueprint case specific feedback
☐ Verify associated logistics
☐ Establish or reestablish general SP feedback delivery
guidelines
☐ Assess SP readiness to provide feedback
☐ Gather or create training materials
☐ Select feedback excercises

Step 3: Develop a training plan

Actions

☐ Create a training agenda

cation skills are paramount in providing excellent care and in upholding the highest standards of patient safety [2, 5].

It is also common practice for communication skills to be taught from the faculty or clinical perspective but assessed from the patient perspective. To avoid a disconnect between how faculty and learners define and interpret best practices for communication skills and how SPs define and interpret best practices for communication skills, there is an essential need for SPEs to build meaningful partnerships and a common approach with clinical faculty members. To support a genuinely patient centered approach it is imperative that SPEs dialogue with all stakeholders to be on the same page in terms of what learners are taught in the classroom and the texts used for communication skills. Additionally, SPEs, Faculty, SPs and all involved in the communication skills teaching and learning process should be informed by the methods with which the learners will be assessed. So that learning drives assessment, and assessment drives learning. Engaging in these practices as a regular, rigorous, and shared dialogue will translate into better outcomes for learners and the patients they serve.

Action ii: Consult with Other SPEs

If possible, it is highly recommended that SPEs new to training feedback shadow or partner with a more experienced SPE. If you are the only SPE at your home institution, we suggest that you seek out feedback training mentorship in your local area at other educational or clinical organizations that may have SP programs or through ASPE or the Society of Simulation in Healthcare (SSH). Training SPs to provide constructive and meaningful feedback requires a nuanced skillset for optimal results. This is not only gained through

the experience of observing and coaching SPs in an introductory training but also over time spent coaching SPs after individual encounters with learners over days, weeks, months, and years.

Since SPs are most often on-call or occasional workers, SPEs may not have the opportunity to immediately notice their patterns and habits when it comes to providing constructive feedback. Additionally, SPEs may need to remind SPs about those patterns and offer continued coaching to support SPs who are sufficient in providing constructive feedback to learners, to become outstanding at this skill. Observing and being mentored by a more seasoned trainer will also bring more confidence to you as you continually work with SPs to support them in providing constructive feedback to learners.

Action iii: Identify Communication Framework for Teaching and Assessment

Selecting a communication framework in which the learner's individual skills are structured is essential before SP training can be conducted. The Calgary-Cambridge Guide [17] is a noted teaching tool that aligns with many core communication skills assessed in the tools noted in Table 9.1. In fact, many of these tools and others used in clinical skills work and SP programs are influenced by a common origin—The Kalamazoo Consensus Statement [18]. This is a short article published in 2001 in the journal *Academic Medicine* that outlines the core communication skills competencies for healthcare learners as defined by experts in the field. Responding to the growing evidence that a new communication rating system was needed in medical education, health communication experts assembled to create core competencies or "elements"

for measuring interpersonal and communication skills now standard in medical school curriculum [9]. These core competencies, outlined in the Kalamazoo Consensus Statement include: Build a relationship, open the discussion, gather information, understand the patient's perspective, share information, reach agreement on problems and plans and provide closure [18]. The consensus statement authors also validated the use of standardized patients in assessing the communication competency of medical learners, arguing that in order for the tool to be used effectively, learners must be assessed from a patient perspective [19]. Learning how to train SPs to accurately assess learner communication skills is a fundamental component in training SPs to provide constructive feedback.

Assessment Tools in Healthcare Communication Skills Curriculum

In the past 40 years healthcare practitioners, researchers and educators have begun to challenge the traditional biomedical model [20]. This traditional model privileges the biology of disease and emphasizes physical symptoms and factors without considering the patient's psychological or social factors. So, in challenging this model it is important to develop assessment tools rated from the patient perspective, which include psychological and social factors. As a result, scholars produced evidence supporting patient-centered global rating scales as effective assessment tools for measuring the communication competency of medical learners. Global rating scales are now commonly used to assess healthcare learners' communication skills.

Field experts also questioned the reliability of the most traditionally utilized assessment tool up to that point, the binary checklist, which was previously accepted as objective and bias free [21, 22]. While the checklist tool was proven reliable for measuring history taking and physical examination skills of medical learners, experts questioned its reliability in term of measuring communication competency. Subsequently, several studies were published supporting the fact that global rating scoring methods are equally as reliable as checklists and, in some cases, more reliable for measuring clinical communication skills [23–25].

While this chapter and book are not designed to delve into the nuances of assessment practice in healthcare education and training, it is essential for SPEs to have basic knowledge of assessment tools used at their institution in their work. *(For in-depth knowledge on assessment practices in healthcare education, we recommend consulting the second edition of the book Assessment in Health Professions edited by Rachel Yudkowsky, Yoon Soon Park and Steven M. Downing* [26]*.)* Most often, these tools take the form of binary case-specific checklists created as part of individual scenarios (refer to Chap. 6). The other assessment tool routinely used in SP Programs is for learner communication skills. Just as is

Table 9.2 Communication skills tools

Clinical skills communication skills assessment tools:
Jefferson empathy scale
Master interview rating scale (MIRS)
∗The revised rendition of the Arizona Communication Interview Rating Scale (ACIR)
The New Mexico clinical communication scale (NMCCS)∗
∗The revised rendition of The Essential Elements of Communication Scale (EECS) (Appendix 4)
The SEGUE framework
University of Chicago (UIC) communication and interpersonal skills scale

the case with curriculum, there is not one accepted communication skills assessment tool used across all Clinical Skills and SP Programs. The Table 9.2 includes communication skills assessment tools (also used as teaching tools) anchored by behaviors, which are or have been used in multiple Clinical Skills and/or SP Programs:

We recently spoke with Robert MacAulay, MMHPE, Director of Simulation Education at the University of California San Diego to ask him about how his SPEs train their SPs to use their assessment tool, a modified SEGUE:

Lou   *You use a communication assessment tool that is reflective of the Kalamazoo Consensus Statement elements, don't you?*

Rob   We do. We use a modified SEGUE tool that we actually use for all of our third and fourth year [medical student] assessments.

Lou   *So, do all the schools that are members of the California Consortium of SP Educators use that same tool?*

Rob   They do. They all use it for the CPX (clinical performance examination). And I think many of us [CA Consortium member institutions] use it as a tool for clerkship assessments, which we do in San Diego. And that's because we did not want to have multiple assessments tools for our SPs. So, it's easier if they're all trained on one assessment tool.

Lou   *Could you confirm for our readers, is that a validated tool?*

Rob   It is. We just modified it because the original SEGUE was considerably longer than the SPs could effectively use.

Lou   *Sounds like an advantage of your modified tool is you've been able to make it shorter so that the SP is, I'm assuming, more accurate in their scoring. Can you tell me more about the tool in relation to the SP training?*

Rob   When we use the assessment tool and the SPs do a checklist, we do anywhere from three to four training sessions. So, the overall training when they actually complete a checklist is anywhere from nine to 12 hours.

Lou   *And that's on the whole case, including the checklist?*

Rob   Yes, including the clinical skills components of the checklist.

Lou   *We know nine to 12 hours is on the high side of training side for most SP programs. Approximately how much of that time is spent on communication skills training and assessment?*

Rob   I would say a good 30% is probably spent on that. Our communication checklist is comprised of two sections. The overall satisfaction item, which is a subjective-*were you satisfied with this event?* and then the PPI (e.g. patient position interaction), which is a modified SEGUE. That's 10 items. Then there's also a written feedback component—this is our graduation exam in the fourth year—it's an eight-station exam. We share all of the written comments with our students. The reason we do that is when you print off the comments from all eight stations, you have eight patients writing a paragraph on each student. And what's so fascinating to me, and we use this in training, is we show the simulated patients how the eight of them together are working as a team are telling a very specific story. So, in training when SPs start questioning, *"Well why am I writing these comments? What are you doing with them?"* I always show them an entire sheet of all the eight patient comments, and we'll read it and then we'll discuss together and then we'll put together a story of who is the student. None of us know who the [actual] student is because I don't name them. I say, *"Let's construct who the student is"*. And, on the Whiteboard we'll put up everyone's [all eight SPs'] impressions. Then, at the end we realize that as a group of eight SPs, they are telling us who the student is and all of the strengths they name are pretty much the same. All of their suggestions for improvement are also the same. That's a very powerful thing because I think a student can disagree with one person, but when there's five, six, seven patients [SPs] telling the same story, I think that's very impactful.

Clinical Communication Skills Tools and Learning Management Software

The most well intentioned SP Educators and best trained SPs may run into logistical difficulties when providing feedback if their efforts are not coordinated with the learning management software used to record learner encounters including assessment data. When providing feedback on clinical communication skills, this often comes in the form of the assessment tool on paper not being reflected in its entirety in the learning management software system—especially if the tool is a global rating scale as opposed to a binary checklist. If the behavioral anchors, that represent behaviors observed by SPs in encounters with learners, associated with global rating scales are not entered as choices in the software then SPs are not scoring assessment tools as they were intended to be scored. In this case the data becomes less reliable not due to training but due to the technology not capturing the full scope of the assessment tool. Worse yet, in these cases when institutions are only using assessment tools as partially intended, the impact of feedback is lessened for the learners who do not have the tangible evidence from the SP raters of the observed behaviors on which they based feedback to the learner. While coordinating these elements (e.g. the assessment tool and the technology) may take some time, your efforts will ultimately be worth it. Such coordination also provides an opportunity for innovation for SPEs in collaboration with technical colleagues and the learning management companies themselves. When the assessment tool and technology synch up, your well-coached SPs are able to provide the most effective feedback to learners with the software supporting, rather than undermining, these efforts.

Step 2: Select Training Materials

Planning for consistent and specific SP feedback training will ensure learners receive impactful feedback that will result in effective outcomes for learners in keeping with educational objectives. Developing compelling and well-constructed training materials are one of the core components of an SP training program. Prior to selecting case training materials including SP feedback training materials it is important to identify the learning objectives.

Action i. Blueprint Case-Specific Feedback

Blueprinting clinical communication skills learning objectives holds potential for increased learning and more targeted, effective feedback from SPs to learners. Just as healthcare educators blueprint other clinical skills in the curriculum (e.g. medical history-taking, physical exam, clinical reasoning), we recommend creating a Clinical Communication Skills blueprint that establishes case-specific feedback guidelines for every encounter in which students will receive feedback. As part of this blueprinting process, we recommend correlating items on your patient-centered communication skills assessment tool.

SPEs are well poised to highlight authentic patient voices with advanced clinical communication skill-building into healthcare education curriculum. Once the case/scenario learning objectives are identified, the next step is to deduce whether or not the case contains specific communication learning objectives and if the character backstory can support those objectives. Why is this important? Every patient is a person and so all human simulation cases/scenarios should be written with the same care and consideration that patients

are diverse, unique, and have different motivations and communication styles and preferences. By establishing a communication learning objective for each case/scenario and providing SPs with the patient background to share with the learner in pursuit of that goal, SPEs may elevate the effectiveness of constructive feedback and, ideally, mirror the diversity of the patient populations. Next, we recommend a collaborative development process in which SPEs work with clinical faculty members to triangulate the communication skills learning objective(s), selected behavioral anchors on the assessment tool, with patient background/backstory. (See appendices for examples on this method including sample case scenario including communication skills learning objectives and identified behavioral anchors on the assessment tool, and SP verbal feedback form.)

In many or most instances, SPEs will involve other curricular stakeholders in this endeavor. Establishing a shared dialogue in this process holds potential for team growth as well as, ultimately, learner growth. In this type of exchange, clinical faculty members provide valuable input as to the specific communication skills required in the scenario and the SPE may contribute as well from the patient perspective. Also, SPEs may add creatively in terms of pathways to achieve the learning objectives, specifically in terms of developing the patient's story. SPEs may bring the added bonus of being mindful of diversity of SP case/scenarios in their overall programs as they engage in this process.

Action ii. Verify Associated Logistics

It is essential to verify logistics so you avoid having a great plan in theory but then not being able to implement it due to practical constraints. So, as soon as clinical communication skill(s) learning objective(s) are identified, and you have blueprinted your case to complement these objectives—verify your associated feedback logistics! You will want to confirm overall number of learners, length of encounters, length of time for post-encounter feedback, transition time (if any) between the end of encounters and when the SPs must begin providing feedback to learners, whether SPs will provide verbal or written feedback or both, and how this feedback is to be captured (e.g. video, in a learning management software system) for later reference by learners and their faculty. If at all possible, if even for a few moments or a few minutes, we highly recommend that SPs are given time between the end of encounters and the beginning of the following feedback sessions, especially for verbal feedback. This will result in higher quality constructive feedback to learners. All too often SPs feel rushed due to lack of time in this arena, and SPEs are encouraged to partner with course directors and other stakeholders in stressing this important issue which can raise up the quality of simulation training exercises for all involved.

Action iii: Establish or Reestablish SP Feedback Delivery Guidelines

We realize that each institution working with SPs may have variances in terms of how feedback is delivered. We encourage originality and creativity in terms of feedback formats and delivery and also recognize that there are legitimate curricular reasons why feedback may vary in form What does apply to all feedback delivery is the essential need for quality preparation of the SP, the SPs knowledge of feedback strategies and the consistent applicability of the institutional guidelines. This section details general guidelines to be considered despite any potential variances.

A side note: if your program happens to be located in an area in which SPs work at multiple institutions it is especially helpful to consider collaboration in your guidelines. In such regions an SPE has only to walk into the break room to hear, *"Yeah, here they do it this way and over at that school they do it this other way. It's sort of similar but different enough that it's confusing. I wish they could all agree."* We share this 'hypothetical example' as a cautionary tale to encourage SPEs working in a shared region to dialogue about this issue. Collborating may ultimately lead to stronger programs on all fronts and resources saved including SPE time and SP training funds.

Determine Logistics and Delivery Point-of-View

There is no hard and fast rule about providing feedback in the first person (e.g. "*I felt*") or in the third person (e.g. "*The patient felt*") or with a combination of the two styles (e.g. "*As this patient I noticed/felt…*"). This being acknowledged, we recommend that in order to keep SP feedback from sounded stilted or a bit robotic that the SP comes out of their patient role to provide feedback. It is recommended that SPs have time between the encounter and the feedback session to compose their thoughts, and often learners will be completing a post-encounter assessment on their own simultaneously. Encourage the SP to introduce themselves at the beginning of the feedback session to establish with the learner that the transition from the encounter to the feedback session has begun. If several minutes pass between the encounter and the feedback session, it is recommended the SP comes out of role at the beginning of the feedback session to avoid confusing the learner. Everyone knows this was a simulation so extending the fiction contract [27] from the encounter—meaning the SP remains in role to provide feedback—could have the inadvertent effect of confusing the learner. An exception to this likely may be in formative sessions when SPs have little or no time to compose their thoughts for feedback (not recommended) and must go directly from portrayal into providing feedback to the learner. In this situation, we understand and acknowledge that your program may choose to go with a third person approach. Whichever delivery approach you use, make sure it is clear

to SPs and learners, and that SPs consistently use this format. Some other general guidelines recommended are:

- Clarify for SPs, learners, and any other participating facilitators what the timeframe is for the feedback session as well as the logistics (e.g. SP and learner stay in room and faculty joins). Nothing is more frustrating to all involved than losing valuable time for feedback because participants are unclear in terms of logistics.
- Clarify the role of the SP if there is another participant in the feedback session (e.g. student peer or faculty). For example, is it the responsibility of the SP to help to transition between participants, so all have equal opportunity to participate?
- Feedback is consistently delivered using the institutionally approved framework (more later in this chapter).
- Feedback does not come from the SPs' personal perspective (unless this is intentional) and should only be used in the context of the patient role that they played.
- SPs provide specific examples of feedback by directly quoting or paraphrasing the learner.
- Less is more, or one, two, or three well-designed pieces of feedback about observable behaviors constructively delivered are much more valuable to leaners than a lengthy and disorganized montage of feedback that is delivered in a non-constructive manner.

These guidelines above, for the most part, apply to written feedback, too. Please note that it is recommended to assess general writing skills of SP applicants in the interview process in order to assess if their skill level in relation to providing constructive written feedback. In addition to our recommendations, we draw on (and expand) Linda Dayer Berenson's work published in the *Journal of Allied Health* [28]:

General Do's and Don'ts
Do's
- Set a tone that focuses on improvement.
- Utilize open-ended questions.
- Acknowledge and explore emotional responses.
- Use active listening skills.
- Respond to both verbal and nonverbal communication cues.
- Use good facilitation skills.
- Involve the student in plans for future improvement.
- If offering an alternative, always speak from the patient role.
- Verify understanding of the content by the student.

Don'ts
- Don't ignore emotional responses from the student.
- Don't comment on personal attributes that cannot be changed.

- Don't use the term 'negative feedback'. Suggest 'areas for improvement.'
- Don't provide false praise.
- Don't use a judgmental approach.
- Don't be vague or use global statements.
- Don't start feedback with "*you didn't*" which may cause the learner to feel blamed or judged and to be defensive
- Don't compare learners to each other
- Don't discuss learners' behaviors outside the session (confidentiality)

Finally, it is likely that learners may also have debriefing sessions with faculty apart from post-encounter feedback sessions with SPs. While SPEs will not likely need to train SPs in these debriefing techniques, it is helpful for SPEs to know about them. As SPEs become more skilled in facilitating feedback and communication skills-related training sessions they may be called on to participate or lead debriefing sessions. It is critical that learners engage in some form of debriefing immediately following simulation activities for stress-relief and to reinforce experiential knowledge and skills gained [29]. Common formats used by clinical faculty to debrief learners include plus-delta; GAS (gather, analyze, summarize); 4Es (events, emotions, empathy, explanation); and Advocacy with inquiry-Debriefing with good judgement [30, 31].

Action iv: Determine Criteria and Process for Readiness of SPs
SPEs should assess the readiness of an SP to provide constructive feedback to learners prior to an actual event day on which SPs are expected to undertake this skill. This is also modeling best practices for SPs if SPEs provide them with constructive feedback on their developing feedback skills. We know, it's very "meta" but hey, that's the profession we are working in! So, how can SPEs best provide feedback to SPs on their feedback skills? We recommend using or developing a rubric or observation form and familiarizing SPs with the criteria from when they first begin with your program.

Additionally, we recommend that proficiency with feedback delivery to learners is one of several categories on which SPEs should evaluate SP performance. SP Programs making evaluation of SPs a priority will benefit by including a range of SP traits to be observed for quality performance. Suggested categories include (but not limited to):

- Professionalism:
  - punctuality for training and event days
  - case-specific attire (e.g. gown)
  - communication with SPEs and peers
  - behavior in monitor area and simulation center

– Training:
  • self-awareness while working in training sessions with other SPs and with learners
  • the ability to receive feedback in the training process
  • engagement with training process
– Feedback:
  • readiness to provide feedback to learners as evidenced in the training session practice
  • ability to maintain institutional feedback framework and delivery
  • accuracy and reliability in assessing learners with communication skills scale
  • ability to provide constructive verbal feedback to learners (if applicable)
  • ability to provide constructive written feedback to learners (if applicable)
– Case Portrayal (refer to Chaps. 6, 7 and 8 for more details on quality assurance of role portrayal and checklist completion)
  • accuracy in case portrayal including case details and patient affect
  • accuracy and reliability in assessing learners on checklist items (if applicable)

Considering these categories in a concise list is helpful in remembering the holistic work of SPs. Namely, this work extends beyond accuracy of case details and portrayal. See Appendix 7 for an example of a past SP Observation form utilized by the University of New Mexico School of Medicine Assessment & Learning Office. The Director of Assessment & Learning at the time and a team of four other SP Educators including the first author collaboratively developed this form. The form was implemented in 2008 and in first 3 years of use, it was noticeable to the SP Education team that SPs appreciated the consistent feedback and the feedback contributed to their skills in providing constructive feedback on a routine basis. To determine readiness of an SP to provide constructive feedback it is recommended to assess their acumen and ease with using the recommended format. To recap, the format guides SPEs in assessing the ability of SPs in providing feedback, knowledge of feedback logistics or guidelines for delivery of feedback, and ability to identify observable behaviors to reinforce or identify those recommended for modification including suggestions for how to implement behavior change.

New SPs as Observers

It is optimal to have new SPs observe experienced SPs provide feedback to learners before they provide feedback themselves during a simulation event. While this may be done by having the new SPs observe videos, it is a more effective training exercise to have the new SP do this in person during a live simulation event and ideally, to have them sitting next to you—the SPE—so you can do this together. Why? First off, the SP will understand the constraints involved in having to craft constructive feedback, often very quickly, while managing other logistical needs such as balancing time to provide your own feedback with learner questions and faculty feedback (if they are present, too), completing post-encounter assessments in the computer along with crafting feedback, and preparing the room for the next encounter. Second, if you both observe the same encounter together, you can ask the new SP to write down their feedback as the encounter is unfolding and before the experienced SP provides their feedback to the learner. Then, you and the new SP can discuss their feedback, the seasoned SP's feedback, and your own (SP Educator's) viewpoint on the encounter. While this requires more resources in terms of your time and funding for the new SP to observe with you, it ultimately sets up new SPs for success by providing an intermediary step between the introductory training session and providing feedback to learners. Also, by spending more time up front training new SPs to provide constructive feedback, it often means less time spent coaching following the initial training.

Action v: Gather or Create Training Materials

It is essential that SPEs are prepared for training sessions to maximize the time and promote optimal learning and skill development for SPs, which results in more effective human simulation training for learners. To do so, consider gathering or creating all training materials well in advance of training sessions, especially when training feedback. Especially allow time for identifying ideal encounter videos to use in having SPs practice feedback skills in training. SPEs routinely note several key materials that should be included in feedback skills training:

• Training agenda
• Feedback manual
• Standard verbal and written feedback framework
• Emotion/feeling words vocabulary sheet
• List of constructive feedback examples (written and verbal)
• Audio/Visual: PowerPoint presentation, video of a learner interview followed by an example of an SP providing constructive feedback to the learner

Please see the Appendices 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 in this chapter for examples of written training materials. In terms of selecting videos for training, we recommend you choose videos shorter in length as it is essential that SPEs spend the majority of training time having the SPs practice creating and delivering constructive verbal and written feedback. A well-chosen five to seven-minute video will likely be more effective in SP training that a 20-minute video which means less practice time for SPs.

Action vi: Select Feedback Training Exercises
SPEs are creative in terms of generating feedback training exercises to reinforce foundational concepts detailed in this chapter. One has only to attend an annual ASPE conference to experience a wide variety of feedback training exercises for SPs including quizzes to emphasize understanding of content, games for purposeful practice of feedback frameworks, and various ways of engaging SPs in practice utilizing a video review process. We have included several exercises for training SP feedback in this chapter in various forms.

- Looking into a Mirror *(defined earlier in this chapter)*
- Recall a Time You Received Feedback *(defined earlier in this chapter)*
- Waste Basket Exercise *(defined earlier in this chapter)*
- Constructing the Learner discussed with Rob MacAulay *(interview earlier in this chapter)*
- Live Role Play discussed with Dr. Tamara Owens *(interview later in this chapter)*
- Brady Bunch Exercise *(defined later in this chapter)*

Realizing that time constraints nearly always apply to SP training sessions, we recommend the inclusion of at least one feedback training activity in routine case training when feedback will be provided to learners. Time spent on such an activity in the SP training session will ultimately lead to better outcomes in terms of SPs providing constructive feedback to learners.

Step 3: Develop a Training Plan

Action i: Create a Training Agenda
If your SP program resources, including budget and time, allow it is recommended to train all new SPs on the foundational concepts discussed earlier in this chapter so that they may provide constructive verbal and written feedback to learners. Providing an introductory session on feedback skills for new SPs is advisable because once they complete it, they will be able to step into any case training more confidently. Also, SPEs will not spend valuable time in every case training session in order to get one or a few new SPs up to speed on this important skill set.

Once you have determined your resources, general guidelines for providing feedback, logistics, point of view for SP feedback delivery and established criteria to observe and assess readiness of SPs to provide feedback you have the information you need to create a training agenda. As with any training, it is recommended to start this foundational training by developing an agenda to help keep you on track in terms of both content and time. The practice of developing an agenda for each training session you conduct with SPs will support you in clarifying and crystallizing the points you

know are most important as you work toward learning objectives as an educator. Additionally, it enables SPs to see, up front, learning objectives and related content emphasized in the training session. Finally, undertaking this process before the training ensures that you—the SPE —have spent necessary preparation time to run the session smoothly. This has a trickle-down effect in that smoother training sessions in which all learning objectives are met with SPs, generally translate to a more effective and smoother running human simulation event with learners.

Beginning training sessions with an agenda also helps SPEs practically by being time conscious which translates into respect for our SPs. In other words, when SPEs keep training sessions running on time SPs feel respected when their time is well-utilized, and they are released from work at the promised time. On an interpersonal level, by following the guidelines specified above you will earn the respect of your SPs, and simultaneously be modeling effective communication skills. Additionally, ensuring that training sessions finish as scheduled is a cost-conscious measure all SPEs should strive for that will support the overall SP program budget.

The sample training agenda offered in Appendix 1 is designed to serve as a guide for SPEs seeking to create an introductory session on providing constructive feedback for new or newer SPs. It is purposefully annotated to explain why and where certain items are included in the session. As with any human simulation scenarios designed for learners, any training materials for SPs should feature key-learning objectives clearly stated early in the agenda (refer to Chap. 6).

Stage Two: Putting It All Together: Training SPs to Provide Constructive Feedback

When SPs are competently trained, learners are more likely to accept, value and use the SP's feedback [35]. Many feedback training sessions, though not all, combine a brief lecture-style introduction with review of case-specific details and feedback in relation to the communication assessment tool (and binary checklist items if applicable). This is usually followed by an observation of a learner encounter, (video clip or simulated live with SPE often portraying learner), then SPs practice scoring the assessment tool and providing feedback based on the video encounter. At some point in the training, there are role-play activities for SPs to practice portrayal and case details in addition to practicing feedback. During the role-play activities, the SPE or other facilitator models different learner styles to provide opportunities for SPs to observe a variety of behaviors and refine their delivery of the mock feedback. Figure 9.4 summarizes seven steps for a feedback training session which are detailed in the following section.

Step 1: Principles of Feedback
Step 2: Common Terms and Concepts
Step 3: Feedback Characteristics
Step 4: Barriers to Providing Constructive Feedback
Step 5: Standard Feedback Framework
Step 6: Bias Training for SPs
Step 7: Practice
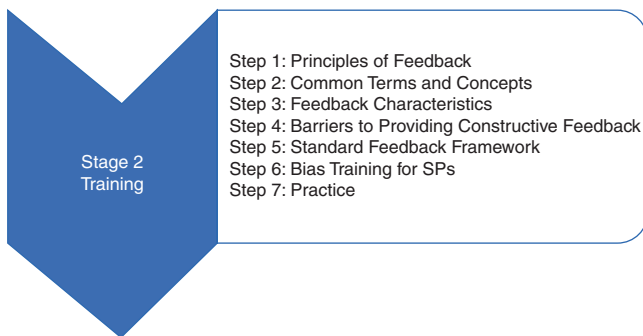
Stage 2 Training

Fig. 9.4 Stage 2 Training

Step 1: Principles of Feedback

Throughout this chapter we have been sharing germinal principles of feedback and related theory, knowledge and examples to benefit SPEs in having a holistic understanding of the process. While it is essential that SPEs have a greater depth of knowledge in this area, it is not necessary to share all of the information in this chapter with your SPs due to time constraints and the fact that SPEs hold a different role from those responsible for facilitating training with SPs. So, this section features summarized key points for inclusion into SP feedback training sessions.

Why Feedback Matters in Healthcare Education Settings

Feedback is a crucial component of clinical education. It fosters learner self-reflection by asking them to think about the interaction and by providing the patient's unique perspective. SPs are trained to provide both verbal and written feedback to healthcare learners to assist them in becoming more effective and thoughtful communicators with patients within clinical settings. Research shows SP feedback is helpful to healthcare learners in practicing and improving communication skills with patients [7].

Why SPs Give Feedback

Discuss the difference between clinical faculty feedback and SP feedback. Feedback from clinical instructor focuses on the learner's knowledge base of medical interviewing and physical exam skills, clinical reasoning, and other performance measures. In contrast, SPs provide learners with feedback on their clinical communication skills from the patient perspective. This includes unique and valuable information about how their actions and behaviors impacted the SP's emotional experience, the impression they left with the SP and the SP's understanding of information exchanged. Thus, the SP's feedback fills a critical educational role in the interpersonal and affective domain [28]. Feedback from SPs is also more objective than from clinic patients [32]. Also, SPs take on the responsibility to shape authentic, safe and helpful feedback, where clinical patients are not purposefully trained

in this skillset. Finally, SPs are trained to give feedback that supports curriculum-learning objectives.

Step 2: Common Terms and Concepts

Throughout this chapter we provide a detailed description of several key terms and concepts SPEs should use in training SPs to provide constructive feedback. As a review and for easy reference, these include:

- Observable Behaviors
- Constructive vs. Non-Constructive
- Constructive Criticism vs. Constructive Feedback
- Positive and Negative
- Sympathy, Empathy, Compassion
- Characteristics of Constructive Feedback (Tables 9.1 and 9.3)
- Bias (including inference and judgment)

Once SPEs establish a common set of key terms and concepts applicable in training constructive feedback to learners, it is important to revisit and name these terms and concepts in case-specific training sessions. Regular reinforcement of this vocabulary is helpful to all SPs as it is easy for them to forget these concepts in the midst of having to remember case-specific details and logistics associated with simulation events. Finally, routine inclusion of these concepts in case-specific trainings is critical for SPs who may not have worked for a significant period of time between assignments.

Step 3: Review Feedback Characteristics

SPEs should reinforce characteristics of constructive feedback to SPs. Earlier in this chapter we provided constructive feedback qualities as identified in medical education literature [8, 10] in Table 9.3. We offer an expanded table here with further explanation and examples for use in training SPs.

Step 4: Barriers to Providing Constructive Feedback

Vocabulary use and facility can present challenges for SPs in crafting and delivering both written and verbal feedback. As noted above, many of the principles in creating constructive verbal feedback apply to written feedback as well. However, when an SP lacks an expansive vocabulary it is all the more apparent in written feedback, which is often documented in learning management software for leaners and faculty to review following the simulation activity. For this reason, it is important for SPEs to review and edit written feedback of new SPs. A note here as we recommend editing for grammar which might cause confusion and therefore make the feedback ineffective or less effective; we do not recommend editing the feeling words or content whenever possible. It is important that these aspects of the feedback remain as it is

Table 9.3 Characteristics of Feedback and examples

Characteristics of constructive feedback for healthcare trainees for use in SP training	
Characteristic	Further explanation & examples
Timely and expected	Excellent feedback presented at an inappropriate time may do more harm than good. It is important the learner expects feedback and is receptive to receiving it.
Specific rather than general	Give specific examples of what happened in the interview, using the learner's own words or paraphrasing the discussion. Resist making global assessments of the learners' performance – such as "*overall you did great*".
Behaviorally based and rooted in observation.	Focus on <u>behavior</u> that is observed and that has the possibility to change.
Relevant to learner level and learning objective(s)	Feedback must match level of learner and curricular objectives. Providing feedback on 'too easy' or 'too complex' techniques will not support learning objectives and may not apply to the learner's abilities.
Focus feedback on description rather than judgment	Judgment is based on a personal frame of reference (good or bad, right or wrong, nice or not nice or values). Avoid using judgmental terms/tone and adopt a descriptive vocabulary and supportive tone. Try using "strengths" and "target areas", "improvement", rather than "good", "bad", "weaknesses".
Focused on providing quality information rather than quantity (too much information)	Be cognizant of the amount of information the learner can use. Overloading a learner with feedback reduces the possibility that they may use what they receives effectively. When we give more than can be used we may be satisfying some need for ourselves rather than helping the learner.
Focused on the behavior not the individual	It is important to identify behaviors that a learner performs rather than make a comment about an assumed characteristicof the L earner. Feedback uses adverbs which relate to qualities rather than assumptions (inferences). Thus, we might say a learner" talked considerably in this office visit," rather than that this person "doesn't listen."
Offer a suggestion for behavior change when emphasizing negative content or reflect a specific action when emphasizing positive content to reinforce/strengthen desired behavior	"*You seemed unsure of yourself*" implies a problem with self-confidence but leaves the learner with no clear ideas for improvement. Instead, the SP could say "*I fetl nervous when I saw you hesitating before moving onto the next step in the exam. You said 'um' a lot then, and you were not looking directly at me. I would have felt more confident if you had proceeded without pausing, spoke without hesiting and made more consistent eye contact with me throughout the encounter.*"
Focused on sharing of ideas and information rather on giving advice	Feedback is delivered best as a conversation, a dialogue – not a lecture or an opportunity to give advice. When sharing ideas we should involve the learner and give them the ability to decide for themselves, how to use the feedback specific to their own goals.

Adapted from George Lehner

from the SP's perspective as the patient who participated in the encounter with a given learner. Due to this potentially becoming cumbersome in terms of time, and as SPEs do not have time to be ongoing writing coaches for SPs, we recommend here and earlier in this chapter to have a written component as part of the SP recruitment process.

It is essential to assess an SP applicant's writing competency prior to hiring, as it is a common misconception that SPs have an innate vocabulary required to discuss their observations and emotions required for quality and specific feedback. Helping them develop and use a robust and functional vocabulary will not only provide learners with rich experiences but will help the SPs cognitive load in the immediacy of giving feedback. Provide opportunities to encounter and learn words from context during the feedback training. Teach the meanings of specific words (what to use and what to avoid) and make of list of these words. Practice and judiciously review words as needed. *Please see a sample list of emotion/feeling words in Appendix 2 of this chapter.* Additionally, keep a watchful ear out for SPs using the same words over and over again as well as providing the same

piece of feedback repeatedly. For example, while an SP felt comfortable when a learner washed their hands this is likely not the most constructive and effective feedback to be offered following most clinical scenarios, (*see case-specific feedback in this chapter for more information*).

Another barrier for SPs in providing constructive feedback to leaners is time. Timing of event logistics as well as timeliness of the feedback itself may present challenges. As discussed earlier in this chapter it is important for all involved in simulation events including SPs to understand logistics in terms of time available to provide feedback to learners. If SPs take too much time, it frustrates learners and clinical faculty members if they are also providing feedback. In terms of timing beyond the feedback session itself, there is much and contradictory research about timing of feedback to learners in terms of which is more effective—immediate or delayed [33, 34]. While it may depend on level of learner, context, and learning objectives in other contexts, for simulation learning activities it is generally agreed on that immediate feedback to learners is most effective to support learner skill development and needed behavior change. This may be

challenging however, especially when SPs and faculty members have contradictory feedback for leaners which happens routinely in SP Programs. This is due, in part, to the fact that it is typical for the SPs to have received more training in this area than most faculty receive and may also occur because faculty members may tend towards providing more lenient feedback to learners in face to face settings [35]. Giving feedback can be uncomfortable for both faculty and SPs. Many assessors fear that corrective feedback will undermine a student's confidence or will be met with a strong emotional response. It is important for faculty and SPs alike to recognize that they will need to tolerate a certain level of discomfort throughout the feedback proces [28].

Additionally, some faculty observing and providing feedback on simulation activities who are not actively involved in curriculum may be unaccustomed to providing such feedback outside of clinic settings [36]. It is important to make SPs aware when they are working with clinical experts who are not familiar with routine processes in your simulation center and SP Program. For these reasons, we also recommend faculty development training sessions for all clinical experts participating in simulation activities and especially those who are not regular faculty members in your programs. Providing "just in time" training prior to simulation activities for occasional clinical experts working with your simulation program also provides SPEs the opportunity to set clear expectations and goals in terms of logistics and content, and ultimately sets all stakeholders—learners, faculty, and SPs—up for success in providing and receiving constructive feedback. This will also support learners and faculty in terms of recognizing and valuing SP feedback as making effective and significant contributions to learners as is evidenced in human simulation research [7].

Despite best efforts, preparation, and training sometimes there will be conflict when learners receive feedback from SPs. This is normal. Conflict is normal [37] especially in the learning process. It is best to prepare SPs up front that it is not an issue of *if* conflict will happen with a learner during a feedback session, but more likely *when* it will happen. Encourage SPs to understand this is a normal part of growth that a learner may be defensive when receiving feedback, and to try and not to take such a response as a personal attack. Rather, to stay focused on the learning objectives of the simulation activity. Also, should that happen, instruct SPs to go to you, the SPE, as a resource to help them in processing the situation. It is important for SPs and students to understand that feedback is an investment in the student's development. Constructive feedback is a caring gesture and should be presented to the student, collaboratively, in this light. When students perceive feedback as caring and understand the investment the SP is making in their learning, they may be less likely to have strong emotional responses and are more likely to be open to the feedback [28]. Finally, while defensiveness, high emotions, tears, and even seemingly aloof or rude behavior may result from conflict occurring in a feedback session—it is never acceptable for students to act aggressively or disrespectfully toward an SP.

Step 5: Use a Standard Approach/Framework for the SP to Give Feedback

Most SP programs use a structured and interactive approach to feedback delivery. This supports the development of a dialogue between the learner and the SP and contributes to time management. It often begins with the learner's self-assessment and, since it is collaborative, helps the learner take responsibility for his or her own learning. A sample framework for post-encounter SP feedback is provided below which is largely adapted from Dayer [28] though it should be noted that the building blocks for this framework have been emerging in the human simulation field for several decades. SP Educator Sydney Smee did foundational work in this area in the 1990s when training SPs to provide feedback to leaners on complex ethics cases at the University of British Columbia [38]. SP Educator Lisa Doyle Howley built on this work creating a workshop for SPs on providing focused feedback to learners on interpersonal communication skills [39, 40]. So, this framework represents a compilation of their work and our own. Please note this framework is intended for use with one learner and an SP, though may be adapted further for team trainings or those with multiple learners.

Sample SP Feedback Framework
The SP will:

I. *Introduce self to learner and role*
   - Introduce yourself to the interviewer before beginning feedback. This will clearly change your role from the patient to an educator.
   - State the purpose of the encounter.
   - State how much time you have to accomplish the task
     Sample *Opening Statement: "Hi. My name is Carol, I'm your Standardized Patient for today. Over the next 10 minutes, I'd like to give you feedback on some of your communication skills that support today's learning objectives."*

II. *Elicit learner's self-reflection*
   Ask the learner an open-ended question about what they thought of the encounter. The response(s) of the learner will help you gauge how they are feeling and if the feedback you are planning to provide is in-line with their thoughts or contradictory. If the feedback you are planning to provide is similar, then often you can build on and reinforce the learner's comments. If the feedback you plan to provide is contradictory, then you can take care in being sensitive as to how you

phrase the feedback in the most constructive manner so that the learner will appreciate and learn from it rather than being provoked by it.

  Sample questions:

- *"How do you feel the encounter went?"*
- *"What do you feel were your biggest communication challenges during this encounter?"*
- *"What were your specific objectives and concerns when you came into this interview?"*

III. *Ask a follow-up question to further elicit learners' thoughts*

  Follow-up by asking the learner why they think that way. What happened during the encounter that made the learner think/feel that way? Often during feedback learners will begin with few words, especially with SPs. This may be because they are feeling like they did not perform as well as they had hoped, or perhaps because they are anticipating faculty feedback. Whatever the reason, if they are hesitant to speak asking a follow-up open-ended question encourages them to expand on their thoughts and models effective communication skills.

- Reinforce the learning process by asking the learner for specific examples. This also will help you to gauge the learner's understanding of the technique(s).

IV. *Introduce the communication assessment tool in relation to case-specific feedback*

  Do not assume that a learner is familiar with the communication assessment tool even if it is one routinely used in your SP Program. Always inquire if the learner has had prior experience with the tool and the feedback process. If not, briefly educate them on both.

- Clearly review the communication assessment tool with the learner. Be sure to encourage comments from the learner regarding each anchor (e.g. anchors are the specific observable behaviors) and provide specific examples from the session.
- If you have been trained in case-specific feedback, which correlates to the communication assessment tool and the learning objectives, provide that feedback now and make explicit connections for the learner during this process.

V. *Reinforce/Validate observed behaviors that meet learning objectives*

  Discuss strengths you observed the learner demonstrate. Use constructive feedback from the patient's perspective supported by specific examples to reinforce behaviors that meet or exceed learning objectives in relation to the case and communication assessment tool. To help remember these moments from the encounter, ask yourself when you experience positive, strength-based emotions (e.g. listened to, appreciated, understood, validated). Remember that "less is more" and a few well-constructed pieces of feedback are more valuable than too much feedback, which may overwhelm the learner.

VI. *Suggest changes in relation to observed behaviors that do not meet learning objectives*

  Discuss confusing behaviors you observed the learner demonstrate, or behaviors they engaged in that resulted in negative emotions for you as the patient. Use constructive feedback from the patient's perspective supported by specific examples to reinforce behaviors that did not meet or exceed learning objectives in relation to the case and communication assessment tool. To help remember these moments from the encounter, ask yourself when you experience negative, deficit-based emotions (e.g. unheard, ignored, sad, misunderstood, neglected, patronized). Remember–again–that "less is more" and a few well-constructed pieces of feedback are more valuable than too much feedback which may overwhelm the learner.

VII. *Review feedback with learner*

  Ask the learner to rephrase highlights of the feedback to ensure clear communication. This will help the SP answer the question, *"Is the student clear about what I am stating?"* Ask the learner to repeat suggestions for change in order to establish a plan for improvement for any observed behaviors that need modification. Encourage learner questions at this time to make sure they have the opportunity to clarify any information you shared or ask a final question(s).

VIII. *Ending the feedback session*

  Provide a polite conclusion and instruct the learner on the logistics (e.g. now you are supposed to exit the room and I stay here).

Footnote: Please—Hold the Sandwich

A final few words on providing a feedback format for SPs. While many well-intentioned educators have, at one time or another endorsed the sandwich method, it has been found to be less effective than originally thought [41]. For those unfamiliar, the model follows a formulaic structure in which positive feedback is given (e.g. slice 1 of the metaphorical bread), followed by negative feedback (e.g. imaginary meat, filling), followed be positive feedback (e.g. slice 2 of the metaphorical bread). This well-intended feedback format backfires in undermining negative feedback, that when delivered constructively, holds the most power to effectively support behavior change in line with learning objectives for healthcare trainees [38]. Additionally, once learners hear this formula repeatedly, they simply stop paying attention to parts or all of the feedback. So please, don't just hold the mayo - hold the entire sandwich.

Step 6: Bias Training for SPs

Training SPs to be aware of and acknowledge their own unconscious bias in SP work is understandably becoming a priority topic nationally in our human simulation profession. A recent study by members of the Mid-Atlantic Consortium of SPEs found significant evidence of interaction effects of ethnicity and gender in simulated encounters between learners and SPs [42]. They noted that of the 84 SPs in the study, the majority of them tended to rate female learners higher in empathy than the male learners. The learners the SPs rated the lowest in terms of empathy were male, African American learners. As SPEs work to diversify their programs to reflect the diversity in our local, regional, and national patient populations, we must consider unconscious bias an integral part of our training our SPs to provide constructive feedback to learners. This chapter section offers an interview with an expert in the field, as well as a simple SP training exercise to encourage SPs to reflect on their own bias.

Interview with Dr. Tamara Owens from Howard University

We recently spoke with Dr. Tamara Owens, Ph.D.., Director of the Clinical Skills and Simulation Center of Howard University who is also a longtime expert in the Human Simulation field, known for her attention to bias training, and is also a Health Communication scholar. She shared approaches on training SPs to provide constructive feedback—specifically about bias and SP training, and also spoke about cultural differences when training SPs outside of America:

Lou   *Tamara, can you tell me how long you've worked in healthcare simulation education?*
Tamara   Since 1997.
Lou   *So, tell me, you know, this chapter is about training SPs to provide constructive feedback to learners and to assess learners on communication skills. Before I ask you anything specific, I would love to hear about your experiences doing that or training trainers to do that. Just anything off the top of your head on this subject.*
Tamara   Communication skills training is really where our patients in simulation shine because the SPs are able to provide the patient perspective. They can own their feelings as to how the learner interacted with them and how it impacted them. Then we can determine the impact of what the learner did or did not plan to do for them in terms of their healthcare. In training them [SPs] we always want to first and foremost learn if they have any past experiences with the medical profession that would bring out a type bias or angst that they may have against the health care worker. Once we're able to

do that then we can get on an objective playing field where they are able to look at the communication skills of the learner such as setting the agenda, [whether the learner is] inclusive or excluding the patient's thoughts and the patient's concern in the encounter. So, we're able to now lay some foundational goals for SPs in order to better assess and provide feedback to the learners. So, I always like to start off with looking at any biases and then go into the different components that make up what good communication looks like. Then layer on case specific, you know—if it's a psychiatry versus emergency medicine case.

Lou   *What are some ways that you've found helpful over the years for you at Howard to train SPs to assess and provide feedback on learner communication skills?*
Tamara   As the trainer, I think preparation is always key. First and foremost, you need to get professional development for yourself in terms of training communication. Also, looking at interactive activities for the training sessions where you will be able to immerse the SPs in an activity that will hone in on what they're supposed to be doing to solidify their knowledge and understanding of that particular area of communication. You also have to look at the instrument with which you're going to assess the learners.

Lou   *You made a great point just now about being prepared yourself as the trainer to teach those communication skills to the SPs. I'm curious if there was specific preparation you received or if there's preparation you would recommend to new trainers before they train SPs in feedback and communication skills?*
Tamara   For new trainer, I think it's critical that you attend a professional development conference such as ASPE that has communication skills training. Then I'm always going to always go back to SIU, [Southern Illinois University School of Medicine has a weeklong workshop program for new trainers to teach them foundational knowledge needed for SPEs] in terms of giving you some foundational knowledge about training on communication skills. Back in the day you had to, you know, talk to other people. I would talk to my mentor like, okay, what are we doing here? How are, you know, we talking about communication? I had to do a lot of talking with my mentor to just make sure I understood what it is we were trying to obtain about the learners in order to provide them feedback and help them grow. Today, there are opportunities such as I indicated to go and get pro-

fessional development from some great work-shops around the country.

Lou   *I agree 100%, I received on the job mentoring, too but we now have some wonderful train the trainer workshops in our country. Switching gears, I think our readers would enjoy learning about your work in other countries. Can you tell us about your experiences of training SPs outside the U.S., in Nairobi, I believe?*

Tamara   I am working with practicing [healthcare] profes-sionals…all of whom specialize in HIV.

Lou   *Any cultural differences you observed from train-ing SPs in Narobi vs. the United States?*

Tamara   So many!

Lou   *Can you give us a couple of examples?*

Tamara   I can definitely tell you that here in the United States, for the most part; our SPs speak English as their first language. When you go abroad my expe-riences in both South Africa and Nairobi, is that English is not necessarily…their first language. In their mother tongue, word choice-to me-came across very harsh and too direct. And I'm trying to soften that up, just a little, because I know that the healthcare workers that they're going to work with feel the same way when you're speaking English. So, it's a fine line. As a trainer I say, you know, I want it to sound like North America, but I really can't because I'm in another country. So, I do that in relation to our goal, and try to make them understand our goal which is to enhance the com-munication skills of the nurses in an HIV clinic so that adolescents will come back. We will repeat that over and over. I wouldn't necessarily do that in North America, but I had to keep that in the forefront of their mind. So, what I did this time is that we did a lot of demonstration of feedback. I did a lot of role-playing in front of the group. Everybody had to get feedback and we all gave feedback to the person who was the facilitator.

Lou   *And did you go first and model it for them, or how did you do that?*

Tamara   I did it first and I modeled it. And in these ses-sions, I always have the researchers—one was a pediatrician and one was an internist—do it. Okay. I made them [the researchers] do it for trust factors because I'm leaving and, and all of my SPs are going be left with that internist and pediatrician and they need to feel comfortable and confident that they know how to provide feedback. So, yes, we did generic cases in terms of feedback. Then we did his or her case [specific] role-plays and each person had an opportunity to give feedback, and we did.

Lou   *What next?*

Tamara   They practice, practice, practice. I gave videos, and we watched videos together. I had already watched videos all of the learners before I got there and gave them feedback on what I saw. And then we also watched the video, and I didn't just do that. And I didn't necessarily only watch the videos with the SPs who were trained on that case. Everybody watched each video and we all cri-tiqued it. What was good, what was not so good.

Lou   *That's great. So, it sounds like a really thorough approach.*

Tamara   Yes, very. I think one of the biggest differences was the tone and tenor of the delivery of the feed-back from the word choices that they would use. So, I gave them a feeling word list to help them better articulate what they were feeling and what they were trying to say [when providing feed-back]. And then you also have to go through that list because understanding while they may know how to pronounce the word; they might under-stand the meaning as something different. I had to spend time on that. In North America, I could give you a list of words and you would know with me what it meant and how to use it, but there I had to go through that list.

Lou   *That's some really great practical advice if SPEs are working in countries where they (the SPE) do not speak the predominant language, and in dual language countries. Thank you for your time today, and specifically for sharing your thoughts and experience on SP training and cultural differ-ence, and on how to help SPs identify and better understand their own biases.*

SP Training Exercises to Encourage SPs to Reflect on Bias

Unconscious biases are those we are unaware of but influ-ence judgments and assessments of people and situations. Our biases are influenced and shaped by our personal experi-ences, background, and cultural environment. While most SPs aim to be objective, they bring unconscious bias into learner encounters. Research shows that SPs have the poten-tial of being reliable raters of learner performance [43]. However, research also indicates implicit bias may exist when SPs rate learners [42, 44]. Feedback is most construc-tive when it focuses on observed behaviors in keeping with learning objectives rather than the person [45]. Therefore, SP educators must be aware of the phenomenon of bias among SPs and account for it in the training process in order to ensure fair treatment and assessment of learners.

A helpful reference for the concept of behavior-based rather than person-based feedback is George Lehner's *Aids*

for giving and receiving feedback [45]. In this simple, straightforward publication he presents concepts that may support SPEs in distinguishing between important terms that indirectly relate to training SPs to recognize and understand their own biases, which can impact how they provide feedback to learners. Terms Lehner discusses in relation to providing behaviorally based constructive feedback include **inferences** and **judgments**. His core guidelines for providing constructive feedback concerning these terms include [45]:

- Focus feedback on behavior not the person
- Focus feedback on observations rather than inferences
- Focus feedback on description rather than judgment

By training SPs to these guidelines, SPEs may support them in focusing on learning objectives and tasks when providing feedback to learners rather than letting SPs fall back on their own personal likes and dislikes. Lehner explains that this is important because inferences are interpretations or conclusions, we make based on our own preferences and so may skew feedback based on direct observations of learners [45]. Another word with a similar meaning to inferences is assumptions. We recommend to always coach your SPs to provide feedback based on observed behavior, not assumptions or inferences clouded by their own perspectives. Also, a single behavior may evoke multiple inferences depending on the lens of the person doing the evaluating. Related, judgment is an evaluation rooted in a personal framework rather than based on a neutral set of criteria [45]. There is a connection and fine line between inferences and judgments. Many people make judgments based on inferences, which is a hazardous thing to do in learning and in life generally as judgments tend to be final. Inferences, assumptions, and judgments are perilous in SP training and simulation education broadly, because—if left unchecked—they may lead to implicit or overt bias.

In 2016–2017 a group of SPEs from the Mid-Atlantic SP Consortium including Dr. Owens, Jackie Klevan from Jefferson University School of Medicine, Nancy Budd-Culpepper from the University of Maryland School of Medicine, and the first author of this chapter–Dr. Lou Clark, (then at Uniformed Services University of the Health Sciences) made focused efforts to expand their SP training practices to include exercises to encourage SPs to reflect on their overt and unconscious bias. This was one of several workshops presented on bias at the 2017 ASPE conference in Alexandria. Within the past several years, SPEs from across America and the world are increasingly considering bias as a required component of SP feedback training.

The collaboration of this group resulted in creating and presenting a training techniques workshop entitled *Training Techniques to Support SPs in Recognizing and Reducing Unconscious Bias in Learner Encounters* and featured presenter experiences from undertaking this as part of SP training as well as sample training exercises for attendees to try at

their own institutions. The first technique shared, *Establishing Conversations,* encourages SPs to reflect on their implicit biases in training. The second, *Taking Inventory*, is a training tool that may be used with a variety of case scenarios. In our group, two schools have used it—one for breaking bad news cases and the other with cases on gender identity and transgender care. Through discussion, perspective taking, and self-reflection, SPs are able to identify their own expectations and imagine how a person in the same situation would prefer empathy to be expressed. By taking inventory the SP is able to expand their empathy vocabulary and more accurately address observable behaviors and statements of empathy. The third technique presented, The Brady Bunch Exercise, challenges SPs to literally choose the face of the physician to whom they wish to provide feedback. This exercise, which has a whimsical name inspired by the hit 1960's and '70s television show of the same name which featured the visual of the 9 boxes (3 rows across, and 3 columns down) in the opening credits, surprises SPs. SPEs engaging in the activity should not tell the SPs this is an unconscious bias activity until near the end of the discussion following the silent activity. The directions and visual are in Box 9.5 and Fig. 9.5.

Box 9.5 The Brady Bunch Exercise
- **Purpose:** a quick method to use in SP training sessions to promote dialogue and awareness of unconscious bias.
- **Activity:** You can use this for training any case scenarios.
- **Sample Case:** Andy Jones, Male or Female, use your own age. You have horrible abdominal pain today, (8 out of 10). You've been having this pain off and on for several weeks but never as bad as today. You know you should have better eating habits, and your spouse nags you constantly about it – to the point where it is negatively impacting your marriage and causing a lot of stress in addition to the physical pain. When you brought this up to the medical learner s/he said *"You really should eat better. Your spouse is right to be nagging you about this."*
- **Your (SP) Task**: Following this encounter, your SP Educator has asked you to provide verbal feedback to this learner. Your feedback should target whether or not you felt judged about your eating habits. Please flip this page over, and silently (e.g. no discussion with your neighbor please) pick a physician on the front of this handout (numbered 1–9) and visualize them as you write a piece of feedback in the space below. You will have 9 minutes to do this.

Note the number of the doctor you picked, and why you chose him/her/them.

Fig. 9.5 Physicians for Brady Bunch exercise

The sample group of SPs who tried this activity in an SP training session was compromised of approximately 16 SPs who were diverse in race, gender, age, and ethnicity. The results were illuminating. After each SP choose the picture of the physician to whom they intended to direct their feedback, our group discussed the results which were surprising! Several of the SPs (regardless of their own demographics) chose physicians – all of whom happen to be Caucasian men likely over the age of 50. When asked why, several replied that the person in one of these three pictures looked "the most like a doctor". After this first admission, the SPs began to catch on, laughing at themselves and their own unconscious biases. One SP, a stately, articulate, and well-liked African American woman over age 50 exclaimed, "I chose mine because he was hot!". The laughter continued with an uproar. Other members of the group admitted choosing a certain picture because it looked like a loved one, friend or family member. Still others admitted to avoiding certain pictures because the physicians in these pictures reminded them of people they do not like and in some cases, even disdain. By the end of the training session we laughed a lot and learned a lot by utilizing a creative, new training technique named after an old television show.

Step 7: Practice

By now you are familiar with the myriad ways SPEs may support SPs in practicing verbal feedback skills. Similar to role portrayal – practice, practice, practice. If your institution requires the SP to provide written feedback, it is important to practice that skill as well. This may be done any number of ways such as having them write down their verbal feedback based on a video encounter before providing it verbally and then either read it aloud or hand it to you. If you choose to have the SP hand the written feedback to you, then you can read along as they articulate the feedback verbally. This demonstrates their ability to paraphrase and also recall key information. Additionally, this will provide the SPE with evidence of the SPs' ability to write meaningful constructive feedback and of their technical (e.g. grammar, error free) writing abilities. Another written feedback exercise would be to have SPs pair up and trade written feedback to edit it for one another, then review together in pairs and share what they learned with the whole training group.

A key aspect to emphasize when SPs are providing both verbal and written feedback to learners is their written feedback, often documented in the learning management system, must match or be reflective of the verbal feedback they provide to SPs face to face immediately following encounters. Nothing is more frustrating and confusing to learners than only hearing positive verbal feedback then reviewing their written feedback later and finding critical comments that were not addressed in real time. Such inconsistency between

Fig. 9.6 Stage 3 Ensuring quality feedback

verbal and written feedback is an essential issue that will lead to learners and faculty devaluing SP feedback. So, when training SPs who will be providing both verbal and written feedback, emphasize that they make the feedback consistent both verbally and in writing.

At the end of training, SPs will have an appreciation of why SP feedback is critical in training healthcare providers in clinical communication skills development. They will also have learned key definitions and concepts utilized in feedback training and understand qualities that constitute constructive feedback in healthcare education. They will have gained a working knowledge of the communication assessment tool(s) used to assess learners at their home institution. They will be ready to provide constructive verbal and written feedback.

To review, there are numerous feedback exercises provided throughout this chapter. Training sessions should be interactive and include demonstrations, role plays, quizzes, games, peer practice, and video review.

Ensuring the SP is providing quality and genuine feedback while following the trained guidelines is a responsibility of the SPE. The heart of this stage requires SPEs to routinely assess and provide feedback to SPs. While this is so critical, it is often one of the most difficult tasks for SPEs to accomplish largely due to time and resources. The third and final stage of our feedback process breaks down steps to support SPEs in ensuring quality feedback delivery from SPs as seen in Fig. 9.6.

Step 1: Reflect on Your Training

Reflective practice is learning from experience. We ask our SPs and learners to self-reflect, and as SPEs we must as well. Reflecting on what you did, what happened and what would be done differently next time is a professional commitment. For the SPE, reflection can take many forms and having tools with benchmarks can help guide your reflection process and the self-assessment of your work. *More details on this are discussed in* Chap. 7.

Step 2: Observe and Assess SPs Providing Feedback

Once new SPs have participated in an introductory training and have observed a seasoned SP with you comparing notes, it is now time for the new SP to provide feedback to a learner with you observing. It is recommended you use some sort of rubric or standard evaluation form for this activity. This form should ideally be introduced in the introductory training session and be used with each SP throughout your program. This way SPs will understand and have clarity on how they are supposed to provide feedback to learners and whether they are meeting these milestones in moving from training to practice. In our experience, we have found SPs are similar to our healthcare learners in that they appreciate timely and regular feedback on their performance.

Step 3: Routinely Observe Each SP in Your Program and Provide Feedback

As an SPE it is good practice to routinely observe each SP when they work, even those most skilled at providing constructive feedback to learners. While, yes, this is time and labor intensive, it is necessary because if you do not observe this in real time, you cannot ensure it is happening correctly or up to the standards that you provided in the introductory training. This is important for several reasons. First, because many SPs work for years in the same program and so may have received the introductory training many years ago. While it is likely that the most seasoned SPs may be your most skilled in providing constructive feedback, this is not always the case. Second, skills unused atrophy over time. As SPs are on-call workers weeks and months may go by between their assignments, so it is only natural that their skills in providing constructive feedback may atrophy a bit if there has been a significant time lapse between assignments. Third, SPs like all employees and learners—it is helpful to view SPs as both—appreciate feedback so that they know what they are doing well and may modify behavior that is not working well on the job. It is important for SPEs to model providing constructive feedback to SPs, so they in turn, model providing constructive feedback to learners. Fourth, if your program has any sort of levels or promotional opportunities for SPs, SPEs should document their performance on a routine basis including feedback skills. As recommended earlier in this chapter, we advise you establish criteria or guidelines for SP observations and share this as a written document with your SPs when they are first hired, and in regular training sessions.

Step 4: SPs Self-Reflection on Feedback

After an SP feedback session, the SPE should encourage SPs to ask themselves:

- *Did I ask the learner to reflect on the encounter before providing my feedback?*
- *Did I acknowledge or respond to the learner before moving ahead with my feedback?*

- *Given the time frame, did I address the relevant, case-specific feedback points?*
- *Did the feedback address specific, observed behaviors?*
- *Did I give specific examples to support suggestions for behavior change?*
- *Did I provide the most bias-free feedback possible?*
- *Did the student leave with constructive information to support behavior change when needed and reinforce behaviors that meet learning objectives?*
- *Did I offer a polite conclusion informing the learner of what, logistically, to do next?*
- *Did I deliver feedback using the institutions' guidelines and standard framework?*

As SPEs if we have provided thorough training and grounding in feedback principles and practices, our hope is that the answers to these questions will always be a resounding—yes! However, we also know that because we are SPEs–we train people and that human simulation is an art and a craft. No two SPs are the same just as no two learners in our simulation activities are the same. Give yourself permission to be patient with yourself and your SPs. If providing constructive feedback was easy then it would go smoothly every time, and we know this is not the case in our work as human simulation professionals and in life. So, whenever possible, employ some creativity and enjoy the process!

SPE and SP Creativity in Clinical Communication Skills Training with Learners

SPEs and SPs come from multiple and varied backgrounds. Among the most frequent disciplinary backgrounds for SPEs are Education, Theater and Communication as noted by a recent ASPE Grants & Research Committee survey led by one of the editors of this book, Cate Nicholas. The results are presented in the poster below in Fig. 9.7. Along with this being true for SPEs, it is well known that SP Program demographics generally follow suit. Many SPs have professional backgrounds in related areas and those with a Theater background often have formal actor training which is beneficial to SP Programs in many respects. Specifically, trained actors come to the job knowing how to safely portray and then come out of emotionally or physically demanding patient portrayals. Additionally, many SPs with a theater background have some form of improvisational theater training which enables them to perform on stage or screen without a script. Finally, many SPs who engage in theater work also work as teaching artists and so are accustomed to using their art form as educators to benefit learners in a wide variety of settings.

With this unique background and skillset both SPs and SPEs with theater backgrounds are excellent resources for facilitating communication skills training sessions as lead edu-
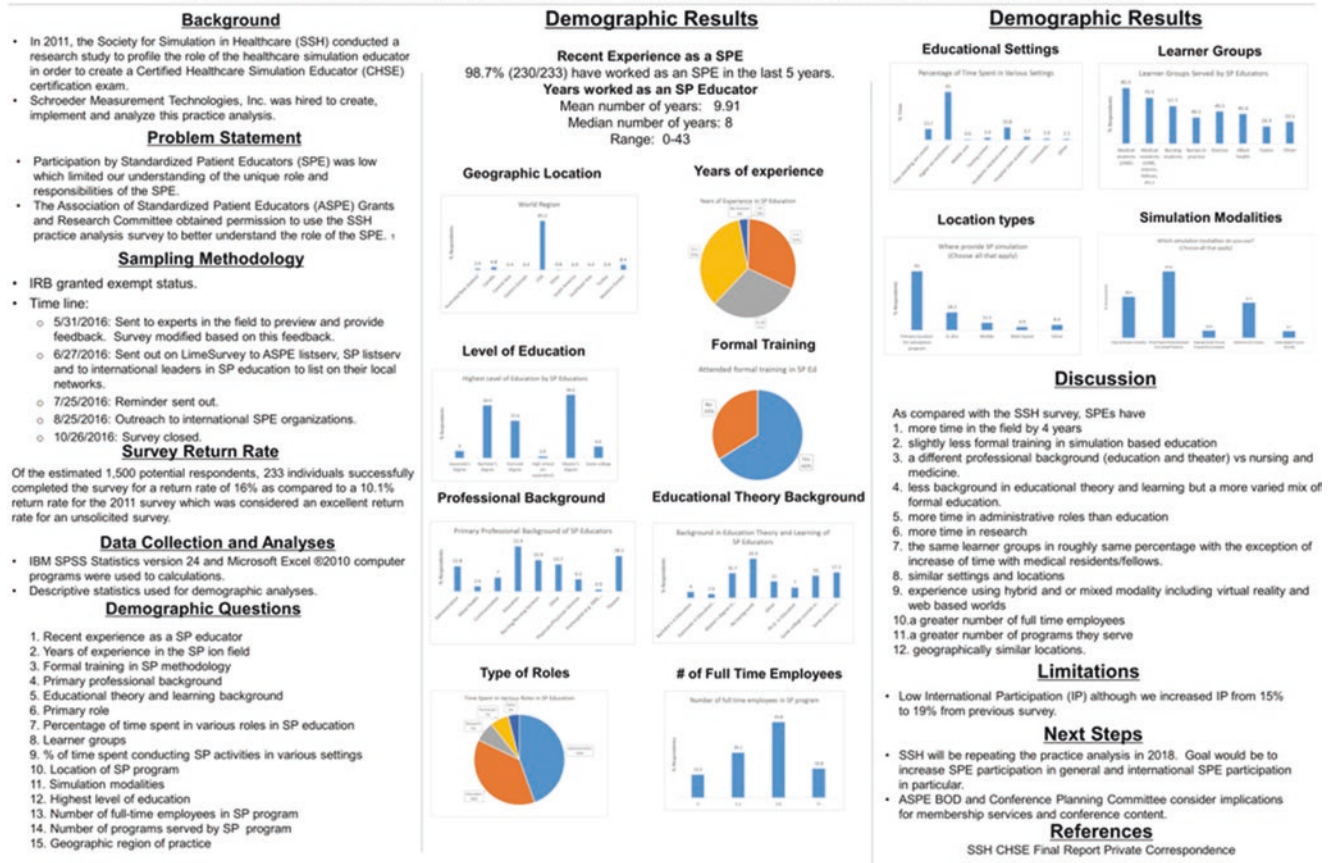
Fig. 9.7 SPE practice analysis poster. (Reproduced with permission of the Clinical Simulation Laboratory, University of Vermont)

cators with learners. While some in the healthcare professions assert that a clinician must be present for this type of training, we have found unique benefits to having SPs or SPEs lead these communication skill building trainings solo or in teams without clinicians from the patient perspective. Among these benefits include that learners are not trying to impress their clinical faculty and so tend to be more relaxed than in more traditional learning settings. In other words, this setting enables learners to ask questions and make mistakes without feeling the pressure of failing in front of clinical faculty members.

Another benefit is that goal setting and debriefing can be led from the patient perspective calibrated to the communication skills assessment tool completed by SPs in your simulation program. Since SPEs and SPs are the ones generally scoring this tool, they are the experts in training the observable behaviors noted on the tool. Finally, and most recently, the first author has coached residents in the clinic identified as having challenges communicating with patients and healthcare team members at the request of senior institutional GME leaders. In doing so, it became apparent that several of these learners were challenged because of other external factors that concerned their well-being which manifested as communication skills challenges. This is a subtle but important distinction and leads us back to considering The Compassion Crossroads where we found ourselves at the beginning of this chapter. It will take creative solutions as we navigate this intersection, and SPEs and SPs have the potential to be important and useful allies in their educational process due to the unique skill sets they bring to human simulation. This section of the chapter highlights SPEs and SPs use of theater and performance-based pedagogy in training healthcare learners. Through the training sessions described, SPs have the opportunity to provide constructive feedback to learners in highly creative ways.

Medical Improvisation with Healthcare Learners Led by SPs, Trained by SPEs

Medical Improvisation (Improv) is an active learning method that uses participatory group and paired theatrical exercises to support health care learners in building clinical communication skills such as listening, teamwork, building relationships, sharing information, emotion handling, and professionalism.

Improvisation is a theater training technique and practice that calls for actors to engage in unscripted performance activities and games. In order for improv participants to be successful they must be flexible, clear communicators, and willing to take part in team-based impromptu activities where the end results are unclear [44]. The skills built in improv are very similar to medical practice [45] which calls for health care providers to be flexible, communicate clearly in service of patient safety, collaborate with teams, and demonstrate a willingness to take part in spontaneous activities in which the results are unknown. So, Medical Improv courses utilize theatrical training in service of health care education goals and practice. Preliminary research into this method has shown promising results in self-reported increases in professional risk taking, listening and responding in the moment, flexibility, and collaboration [46]. After conducting preliminary research showing that Medical Improv courses may be a beneficial learning tool in graduate medical education [47], staff at Walter Reed National Military Medical Center (WRNMMC) and SP Educators at the Val G. Hemming Simulation Center at Uniformed Services University of the Health Sciences (USUHS) created and implemented a 10 hour Medical Improv course for fellows and residents in need of communication skills remediation in 2014. This course was initially modeled after the 10-hour "Playing Doctor" course taught at Northwestern University by Katie Watson [46]. This course was offered to learners in the Graduate School of Nursing as well as resident-level learners at WRNMMC. Following 2014, the demand for Medical Improv at USUHS and Walter Reed has grown, and Medical Improvisation was since included in the undergraduate medical school curriculum for post-clerkships learners.

In March 2016, the SP Education team at USUHS implemented an adapted 3-hour Medical Improv course to meet the needs of post-clerkship medical learners as part of the Bench to Bedside and Beyond required Humanism Series. One hundred and sixty-five MS3 learners from the USUHS Class of 2017 participated in the course. In order to deliver the course for the much larger undergraduate medical learner population which averages 165–170 learners per class, our team expanded facilitator training to include SPs who possessed theater and teaching backgrounds. (Initially 1 SP Educator who completed formal training with Katie Watson at Northwestern University taught the Medical Improv courses.) 6–8 SPs were trained per year over 3 years to implement a 3-hour Medical Improv workshop for all undergraduate medical learners beginning in 2016. Training included goal setting for the training session and learning and practicing the improv exercises the SPs would lead for the learners. Goal setting with the learners occurred in the beginning of each 3-hour session after an initial ice-breaker game. At this time, the SPs would ask learners to name the challenges they face when in clinic as seen in Fig. 9.8.
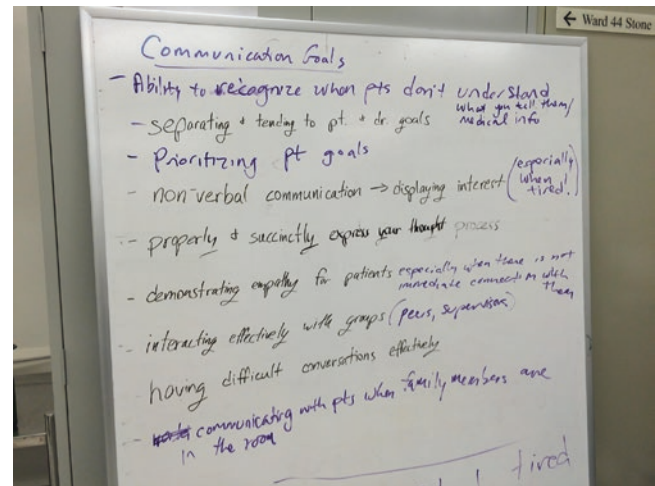
Fig. 9.8 Goal Setting ice-breaker game

Learners were split into small groups of 9–10 participants to ensure active participation in the improv exercises and discussion about the application of each exercise to their work with patients and other members of the health care team. The curriculum was continually improved, new SP facilitators were trained due to availability, and the 3-hour workshop was given again to learners at the same point in the curriculum in 2017 and 2018.

The SP Medical Improv facilitators, not surprisingly given their backgrounds, excelled at learning and leading the improv exercises. The SPs found it more challenging to lead the debriefing of the exercises in which the post-clerkship learners discussed their clinical experiences following the exercises. This is because our SPs had previous minimal experience dialoguing with students about challenges they faced in the clinic, but rather only had the experience of feedback exchanges in simulated settings. So, this presented an opportunity to educate our SPs to expand their area in this knowledge. In 2017, additional time was spent in training the SP facilitators in debriefing the improv exercises in relation to the Essential Elements of Communication global rating scale that is used to assess medical learner communication skills throughout their education at USUHS. Increased support in the debriefing process resulted in the SP facilitators being more comfortable in this role, and in a higher quality level of conversations with learners during the Medical Improv workshops (Fig. 9.9). This was important, because in order for the learners to feel this was beneficial to learning clinical communication skills, they had to experience the workshop as more than a collection of games. They had to make the connection between the theater exercises and their experiential learning of clinical communication skills–that they were actually receiving feedback by gaining a greater awareness of their own communication skills abilities through playing these games. Our program evaluations over the course of 3 years provide significant evidence that learners did, in fact, make this connection leading them to perceive their clinical

Fig. 9.9 SP Faculty med improve exercise

communication skills as being improved due to the Medical Improv workshop.

Medical Improv Program Evaluation Results

Program evaluation data indicate the success of the Medical Improv curriculum. Over 3 years of trainings, post-clerkship medical students ($N = 442$) rated their perceptions of their communication skills before and after the training session. The questions assessed people's beliefs about their abilities to listen, speak, and interact with patients, colleagues, and supervisors. This data is notable both in terms of findings, and also because it provides empirical proof of training effectiveness of Medical Improvisation for a large number of learners as part of a required course for medical students as opposed to previous written reports documenting improvisation used in elective course for healthcare trainees including medical students [46, 48]. As seen in Table 9.4, the learners' self-reported interpersonal communication skills competencies markedly improved after this Medical Improv training.

While their beliefs about their communication skills were relatively positive at the start (all pretest mean scores were above the midpoint of the measurement scale), each skill showed significant improvement after improvisational training. The largest improvements included learners' confidence in public speaking, ability to respond to unexpected challenges, and perceived flexibility. Though still significant, learners reported smaller increases in attentiveness toward and ability to collaborate with patients. Most notably, people increased in their belief that studying improvisation would improve their clinical practice.

Qualitative comments made about the training provide further insight into the efficacy of the program. Although a number of learners reported being open minded prior to the

Table 9.4 Mean differences in post-clerkship medical students' perceived communication skills before and after Medical Improv workshop

Communication skill	Pretest Mean (SD)	Posttest Mean (SD)	t
I consider myself to be a flexible person.	6.48 (1.38)	6.85 (1.26)	8.19
I am attentive to patients when they express their concerns.	7.31 (1.06)	7.45 (0.93)	3.53
I am comfortable when eliciting emotional concerns of patients.	6.58 (1.49)	7.02 (1.23)	9.12
I am able to successfully respond to and solve unexpected challenges with patients and colleagues.	6.44 (1.19)	7.05 (1.05)	12.11
I feel confident speaking publically in front of colleagues/supervisors in the workplace.	5.94 (1.83)	6.65 (1.57)	13.98
I collaborate well with patients and colleagues.	7.36 (1.01)	7.50 (0.96)	3.53
I believe that studying improvisation today will help me be a better doctor.	5.37 (1.90)	6.70 (1.86)	18.21

Note. All comparisons differed significantly ($p < .001$). Means reflect responses on a 9-point scale assessing agreement with the statement (1 = Not at all, 9 = Fully)

training, it is clear that many learners were initially wary about or even openly resistant to participating in the training. For medical students concerned with taking the National Board of Medical Examiners licensing examination (step 2 CS), studying for classes, and routine responsibilities, this is perhaps understandable. However, a recurrent theme showed that learners who did not see the value in applied improvisation beforehand reversed their position afterward. Consider the following feedback in Table 9.5, which shows learners' responses about their feelings toward participating in the Medical Improv workshop:

Other comments focused on the value of the training with particular recommendations as to its implementation in medical education:

> I can see the benefit of these exercises, especially if they were spread out over the course of med school.
> I most enjoyed thinking about and hearing about communication as med learners and what to expect moving forward. This exercise was much more valuable after a year of clerkships, seeing what it is like in a hospital.
> I think we should do it earlier in the curriculum and then have an additional session. Practice and repetition are keys to learning.

Additional qualitative data included resounding feedback that learners felt this was a "fun" experience and should be offered earlier and integrated throughout the curriculum. More in depth responses articulated learners' ability to tie

Table 9.5 Post-clerkship medical students' comments before and after Medical Improv workshop

Before the training	After the training
I don't know what to expect. A little nervous to be vulnerable in front of peers	I hadn't really thought about how improv is so prevalent in medicine! Glad we did it!
Not sure how this is helpful.	It was a good time to decompress. It helped loosen people up and helped us readdress how important communication is.
I am not an actor and don't do well with stuff like this. I don't mind watching and I'm sure there are valuable lessons, but I just don't want to be on stage.	Much better than anticipated! The atmosphere was great. Much less stressful than I thought going in. Awesome job.
It might be able to possibly help, maybe.	It was surprisingly enjoyable with applications to real life.
Meh.	It was unexpectedly helpful.
Hesitation, skepticism.	It highlighted the importance of nonverbal communication, which is a huge part of developing rapport and connecting with people.
I'm a little nervous as I don't know many people in the class…but I also think it'll be fun.	I enjoyed the experience and was surprised by how many of the games parallel patient interactions.

improv training to challenges they face as health care learners. These comments highlight participants' recognition that Medical Improvisation rooted in theater pedagogy would best be integrated throughout their medical education. These comments also support the impact and effectiveness of well-trained SPs and SPEs as lead teachers for communication skills training with healthcare learners.

Theater Based Exercises for SP Training and Learner Clinical Communication Skills Development

In addition to formal Medical Improvisation curricula helpful for providing constructive feedback to learners on communication skills, many SPEs have used theater-based exercises routinely in SP training for a number of years [6]. Though this section is a departure from conventional feedback training, we thought it valuable to expand on this topic here especially in considering SPs as learners. These exercises support SPEs in providing constructive feedback to their SPs in the training process. Theater-based exercises are creative ways to train SPs safely and are especially helpful in supporting SPs to create authentic portrayals when taking on emotionally challenging patient roles. As with many actor-training techniques, those in this chapter section encourage exploration of portrayal in emotionally and physically safe ways. The benefit to learners is sitting opposite an SP who is coached to authentically and safely portray a patient character in distress. When SPs portray such characters many anecdotally cite this as draining but especially rewarding work. Through their commitment to authentically portraying emotionally challenging roles, they create opportunities for learners to practice communication skills in response, most notably compassion. Many theatre-based exercises may also be used in coaching learners directly to help them practice clinical communication skills. Exercises may be led by SPEs or SPs for learners as evidenced in the Medical Improvisation section of this chapter.

Emotional Memory

The emotional memory concept evolved from the work of famed Russian actor and theatre director Konstantin Stanislavski. Stanislavski, whose life spanned the later half of the nineteenth century into the first part of the twentieth century, was best known for his system of training actors, which involved specific preparation and methods for rehearsal [49]. His techniques have been utilized and adapted by theater artists from around the world over many decades including by American actor and well-known acting coach, Uta Hagen. In her book Respect for Acting [50], Hagen explains: *"Emotional Memory or emotional recall deals with the problem of finding a substitution in order to release that big burst of tears, the shriek of terror, the fit of laughter, etc., demanded by the playwright, the director or by yourself as interpreter when the given circumstances of an immediate event in the play (something done to you by something or someone) fail to stimulate you sufficiently to bring it about spontaneously."*

The first author has used the emotional memory concept in training SPs for a number of years and has presented this work as part of a training techniques workshop series called *"Innovative Training Techniques for Actors & Non-Actors to Improve SP Portrayals"* at the ASPE annual meeting in 2008, 2012, and 2015. The emotional memory concept is useful in training SPs to drawn on their own memories to create memories for a patient character they are going to portray that they, themselves, have not experienced. Why is this helpful? This exercise is helpful to SPs because, especially when portraying emotionally challenging cases, they may not have experienced what the patient is going through as a result of their illness. In certain cases, such as cases dealing with breaking bad news or domestic violence, SP Educators may actively screen and recruit SPs to portray those roles who have not had similar experiences to try and safeguard SPs from feeling vulnerable or unsafe as a result of their work. So, for example, when you need to train SPs to portray severe depression or anger or a mix of both, but you do not

Fig. 9.10 Emotional memory tableau

want to cast SPs at risk for these issues, emotional memory exercises are helpful.

Figure 9.10 is from a 2008 SP training session at the University of New Mexico (UNMSOM) School of Medicine. In it, the patient character, Amy Long, is a woman in her mid-30's who presents for fatigue. Amy is the Development Officer of a local non-profit. She enjoys her job, has good friends, is a relatively healthy young woman who works out each week and was engaged to be married until recently when her fiancé Francis broke it off 6 weeks ago. She comes into the doctor's office, as *"She just isn't feeling like herself."* If prompted further by learners asking what she felt like, Amy was scripted to reply *"Blue."* Since none of us in the training session had been through this exact situation, we were not sure of exactly how blue Amy really felt. We were determined find out how blue was blue for Amy. So, we decided the SPs should role-play the moment Francis breaks up with Amy—subsequently breaking her heart. We used adapted emotional memory technique to create a breakup that never happened for SPs to feel what it is like to have gone through a difficult breakup, which was the catalyst for this patient's major depression. Our colleague Mike, who is one of the nicest people around, decided to put himself on the line and portray Francis opposite our 3 Amys who tag-team role-played this memory. Meaning, since time was short in training, each of the SPs portraying Amy took a turn and tagged in and out of the continuous role-play. Box 9.6 provides a description of the exercise:

Along with providing some great role-play practice as this character and creating the emotional memory for Amy to draw on when working with learners, the group had fun. Two of the SPs in the training session happen to be actors the other SP was not working full time outside of the home at this point as she was focusing on her family needs and has since gone back to work as an engineer. This is very indicative of the SP Program at UNMSOM at that time—a true mixture of those with formal actor training backgrounds and

those without. Each of the SPs and Mike provided feedback about the exercise:

> **Jenette (Actor) –** *This exercise was helpful to me because it gave me a memory to recall during performances. It also made training more fun and bonded the group.*
> **Holly (Actor) –** *The exercise definitely made training a depression case more fun.*
> **Karen (Non-Actor) –** *I appreciated the non-verbal acting in training that helped us get at the "root" cause of concern for Amy. Since I haven't had this particular experience, the exercise helped me develop my affect.*
> **Mike (SP Educator) –** *I felt like a jerk being Francis.*

Following the SP training session, each of the three SPs were observed during the OSCE encounters with third year medical students. The emotional memory exercise contributed to them portraying a demanding case with emotional consistency throughout the three-day OSCE event and being standardized in terms of nonverbal affect or "Blue level" as we came to call how Amy felt. The SPs shared that they drew on the emotional memory role-play exercise for scripted moments as well as nonverbal moments. Ultimately, their consistent and standardized portrayal of this emotionally challenging OSCE case afforded each of the learners equal opportunity to demonstrate their communication skills with this patient especially their ability to communicate compassionately.

Sense Memory

Sense memory, like emotional memory has roots in the work of Stanislavski [49]. As is the case with emotional memory, acting coach Uta Hagen further adapted this concept: *"I use*

the term Sense Memory in dealing with physiological sensations…I believe that the sensation occurs most fully at the moment when we are occupied with the attempt to overcome it, not when we wait for it while trying only to imagine and remember it." [50] So, emotional memory deals with creating memories for the heart and mind, while sense memory techniques are used to create memories for the body including physical sensations.

We also utilized the sense memory technique at UNMSOM in training SPs. Our department received funding to design and implement an interprofessional simulation event for Family Medicine residents and Family Law students to teach them to better treat/serve and refer patients/clients who experienced intimate partner violence, (at the time it was referred to as domestic violence). The SP scenario development team included the psychiatrist and nurse leaders of our department, three other SPEs, emergency medicine physicians, the Assistant Dean of the Law School, and an attorney from New Mexico Legal Aide. We designed four cases that were part of a formative OSCE which had both medical and legal components. We also crafted medical and legal assessment checklists that were used to assess interviewing and physical exam skills. The Essential Elements of Communication was used to assess clinical communication skills and modified to assess law student communication skills. Additionally, as we were in New Mexico, our cases reflected the diverse cultural landscape including components of Native American Tribal Law, and several aspects unique to the Hispanic culture that comprises almost 50% of the state's population. After our first successful implementation in 2008, we received it another grant enabling us to carry out the second successful formative OSCE for an additional round of learners and published this work in the *International Journal of Clinical Legal Education* [51]. All this to say, it was a significant project and much care was taken in terms of recruiting, casting, and training the SPs portraying the patients/clients who experienced intimate partner violence.

Our SP Education team intentionally screened all SPs we asked to consider portraying these four, sensitive roles. Due to the backgrounds of the patients/clients, we did not want to cast any SPs who had actually experienced this type of violence themselves. This necessitated a few challenging conversations with some SPs who had, in fact, experienced related issues, but felt capable of portraying one of the roles. Ultimately, we thanked them for their honesty but declined and offered them other work as our goal was their emotional and physical safety and well-being. So, the fact that we cast all SPs who had not experienced such violence necessitated that we simulate the experience in a safe environment. So, we used the concept of sense memory to simulate a violent experience for the SPs portraying Gabriela, a young woman who is newly pregnant whose boyfriend kicked her in the stomach when she told him the news.

We simulated this experience by creating this experience in a closed training session with only the three SPs, two SPEs, and one videographer present who recorded the technique on film. We laid out a blanket in the middle of the floor and noted that whenever an SP stepped off the blanket this meant they were safe, out of the scene. All movement conducted was in slow motion as one of the SPEs (the first author who is a woman slight in stature) silently role played the part of the abusive boyfriend, and took each SP by the arm, forced her to the ground, and ever so gently took their foot and made connection with each SP's belly. Following the exercise, the SPs and SPEs debriefed and all SP commented on how, even thought they new they were in a safe environment; this physical experience informed how they would portray Gabriela. One SP commented:

Faye (SP/Non-Actor) *– First, I found that the exercise helped me visualize what the transition would look like and feel like - from being happy to see my partner is home and then instantly realizing something is wrong. The exercise showed me what it might feel like to love someone yet be afraid of them. The exercise was helpful because I've never been in this situation before.*

The former SP Program Manager, a nurse, commented:

SP Program Manager – I specifically asked our SPE with the theater background if she had or could create a theater-based exercise to help me train this case. The SPs did the exercise at the start of their first of three training sessions and it helped lay the foundation for everything we did together in the remaining training sessions. For me this experience reinforced the strength we draw from our diversity as a training team and served as a reminder that we have very dedicated SPs who are willing to try new training techniques as they tackle the most difficult cases.

The SPs who portrayed Gabriela were able to do so convincingly though they, themselves, had fortunately not experienced intimate partner violence themselves. The sense memory exercise supported them in created authentic portrayals despite this lack of first-hand experience with associated trauma. This contributed to the overall success of this event for both the emergency medicine residents and family law students, many of whom had already encountered patients/clients routinely who had experienced intimate partner violence. The sense memory exercise supported the SPs in authentically portraying Gabriela, which provided the learners the opportunity to demonstrate the full range of their communication skills for this simulated formative OSCE.

Mirrors

There are many variations on the actor training exercise known as mirrors, which is very helpful for standardizing both emotional and physical portrayal with SPs. Mirror activities are also helpful for coaching healthcare trainees

on skills associated with clinical communication. Two theater luminaries who evolved and innovated the concept of mirrors include Brazilian theater maker Augusto Boal and Viola Spolin, an American theater educator and acting coach who influenced the first generation of Chicago's Second City Improv troupe. SPEs are encouraged to consult Boal's Games for actors and non-actors and Spolin's Theatre games for the classroom: A teacher's handbook for numerous exercises that may be adapted and used in training with SPs.

Most variations on the mirror exercise begin with two partners facing one another about 18 inches apart, with their arms down by their sides, relaxed face, breathing together at a regular to slow pace. This is called the neutral position. A facilitator then guides the partners through the exercise using the metaphor of a mirror. Prior to either of the partners initiating a movement, the facilitator explains that the object of the exercise is for both partners to move together, in simultaneous motion—silently—so that it unclear to observers who is leading and who is following. The facilitator will also recommend that both partners move as slowly as possible so that the other may follow as closely as possible. Once the facilitator instructs the movement to begin, they will side coach the participants which includes prompting them to make sure to alternate who is leading and following, usually also to slow down their pace, and that it is o.k. to laugh if needed. This is normal and, in most groups, there is some laughter due to participant discomfort with prolonged eye contact especially at the start of the exercise. Participants should be side coached to try and move beyond their laughter to maintain focused eye contact promoting concentration and connection. This, in fact, is one of the primary reasons to use the mirror exercise—to foster eye contact in both SPs and in learners. Once each of the partners has taken a turn leading and following, bring the exercise to a close and discuss the relevance to SP training or for learners, clinical communication skills training. In both cases, one of the most prevalent topics for discussion is how this exercise promotes nonverbal communication, connection, and relationship building—integral components for demonstrating compassion.

Conclusion: Back at the Compassion Crossroads

We have travelled different paths throughout this chapter since the introduction of The Compassion Crossroads. The intent was to explore and learn various, effective training modalities to support SPs in providing feedback to learners to support them in their communication skill development which contributes to their abilities to articulate the empathy they feel and to demonstrate compassion. Again, we highlight that learners include all stakeholders including SPs. In this chapter, we have learned key vocabulary and concepts to root us in a common language, experienced training exercises and examples rooted in North America and beyond, considered bias and its role in feedback and clinical communication skills training in human simulation, and explored creative performance-based ways in which SPs may participate as educators in providing feedback to learners and that are useful in providing feedback to SPs during training sessions emphasizing challenging case portayals. In the short term, SPEs may support learners by training SPs to provide feedback constructively on a consistent basis, utilizing rigorous processes that include meticulous preparation, training, routine observation, and creativity. This is critical work. Once our healthcare learners depart from simulated experiences into clinical practice, it may be a long time or never again that they are observed and receive feedback on clinical communication skills from the patient perspective. In the future, we may consider creating human simulation learning activities that place learners and SPs in conditions more representative of those they face routinely in clinical practice. This will necessitate collaborative curriculum design or re-design with other institutional stakeholders. Anything is possible, but curricular reform is critical and needed urgently because it impacts everyone at The Compassion Crossroads participating in healthcare today. We–educators, clinicians, patients, SPs–are all at The Compassion Crossroads. Which path will you choose?

Director of Neurosurgery at Walter Reed Military Medical Center for inviting us to collaborate with him and his residents to support their growth and development of clinical communication skills utilizing Medial Improvisation techniques. Finally, sincere thanks to Belinda Fu, MD at the University of Washington for her support of the Medical Improvisation program at USUHS, and to Katie Watson, JD at Northwestern University for her vision in creating the Medical Improvisation curriculum which we adapted in order to implement this program at USUHS.

Appendix 1: Sample Training Agenda

Training Agenda: Introduction to Providing Constructive Feedback for SPs

Suggested Number of Participants: 6–10 SPs is optimal, 15 maximum with less sharing time per participant

Training Session Length: 3 hours with 10-minute break

(Annotations are provided to explain why and how items on this agenda are created, are provided in italicized parentheticals throughout the document.)

(This first note is about suggested time and duration for this training. This training session is designed for SPEs to spend approximately 2 hours of training time on agenda items before the 10-minute break and to leave the remaining hour for practice. In order to maximize practice time, it is recommended to pick a short, sample video(s) for practice.)

(While it may be tempting to have less paper to deal and admirable for those conscious of resources and the environment, it is highly recommended to provide each SP with a copy of the training agenda. This way they can take notes as they go along, they can appreciate the specified time on the agenda and have a better understanding that there is much to be accomplished in a short period of time. Being able to see the agenda will likely also help allay concerns that certain questions will be answered during the training and prevent tangents or side conversations as well as questions asked at inopportune times that could likely throw off the flow of the training session.)

1. **Hand out materials to SPs** (before start of training as SPs enter the training room)

   (Hand out materials before training to save time. This is also a helpful thing to do for a group that does not know each because they have something to review if they tend towards shyness. Once you start the training session, instruct participants to put these materials to the side once as you won't need them until later. Participants may easily become distracted and be tempted to "half-listen" to critical information if they are looking at these written materials in the first part of the training.)
   - Verbal Feedback Manual
   - Verbal Feedback Format Sheet
   - Emotion/Feeling words Sheet
   - Mirrors

2. **Introduction and Name Tags** (5 minutes): SPEs & SPs

   (Consider using name tags for any training sessions in which there are new or newer SPs. Also, it is recommended to include names for all participants on the training agenda.)

3. **Learning Objectives for Training Session** (5 minutes)

   (include learning objectives with every agenda for training sessions you hold with SPs. This will provide clarity and guidance and help focus all involved in the training session including SPEs. It can also be helpful to revisit the learning objectives at the end to ensure they are met or to any remaining questions if they are not.)
   - Appreciate significance of SP feedback in health professions education
   - Familiarize yourself with logistics related to providing feedback including setting, format, materials, timing
   - Create list of constructive feedback qualities applicable to health professions education
   - Learn home institution format for providing feedback to learners
   - Practice writing constructive feedback
   - Practice delivering constructive verbal feedback
   - Build confidence in providing constructive feedback to learners

4. **Why Feedback Matters in Healthcare Education Settings** (5 minutes)

   (While it is important for you as a human simulation education professional to understand and having a working knowledge of the concepts discussed earlier in this chapter about communication skills in healthcare education, they may be summarized for your SPs in order to save time and communicate what is most relevant to their training needs. If they ask probing questions and want to know more, you will be prepared to share more with them!)
   - SPs are trained to provide both verbal and written feedback to healthcare learners to assist them in becoming more effective and thoughtful communicators with patients within clinical settings
   - Research shows SP feedback is helpful to healthcare learners in practicing and improving communication skills with patients

5. **Introduction to Verbal Feedback** (5 minutes)
   - SPs provide verbal feedback to learners following many but not all encounters with learners
   - The feedback portion of the encounter consists of the SP, the learner, and sometimes a faculty member talking together
   - The SP leads the session offering feeling-based feedback to the learner. Then, if there is a faculty member, he or she will provide input on clinical content
   - A verbal feedback format sheet and a sheet with emotion words is provided for you in each exam room to help you better construct your feedback. We will go over each of these forms in this training

6. **Feedback Tour** (15 minutes)

   (Once SPEs provide the learning objectives and broad overview, it is helpful to get up and see the space in which feedback takes place. Often, this introductory training session is provided for SPs new to the program so it is likely that not every SP in the session may have seen the space. Understanding logistics is also helpful for all SPs providing feedback and can be a source of apprehension and prompt many questions at the outset of the training session. By providing a short tour of the space SPEs can answer all of these questions at once, thereby maximizing training time, as they will not have to repeat themselves. Finally, getting up and moving during a training session is helpful to break up extended periods of sitting and for stimulation. In accordance with learning principles and theory, we recommend generally using as many variances/ modalities in your training approach as possible to ensure optimal learning and engagement with SPs as learners.)

   - The Monitor area is the place where SPEs are located during simulation events to answer SP questions, and to observe and provide feedback to SPs. It is also often where faculty members watch SP encounters with learners. Sometimes SPs will observe other SPs in the Monitor area as well as part of our quality assurance program
   - Each exam room is set up in the same way, so whatever room the SPs are assigned to will have verbal feedback format sheets, and a sheet with emotion words in one of the exam room drawers
   - For all feedback sessions, (unless otherwise specified) SPs should sit in a chair at a comfortable distance across from the learner. There is no need to be sitting on the exam table when providing verbal feedback. This is because the SPs are in the role of educator rather than patient when providing feedback to learners. While the feedback is based/rooted in the character's preferences and the SP speaks from this perspective – the SP is in the dual role of educator at this time
   - After each encounter SPs are to login to the computer in the exam room to access our learning management system software. Once inside the software SPs may score learners on Case Specific Checklists and the Communication Scale used by our SP program, learners, and faculty as part of the curriculum. SPs will also enter written feedback into this system about each learner to support ratings assigned on the Communication Scale
   - Note – If SPs give verbal feedback as part of the encounter – it is very important for you to be consistent with verbal and written feedback provided to the learners. In other words, if you only say positive things in the verbal feedback encounter but then write all negative comments in the computer, this will surprise learners and put them on the defensive
   - SPs should utilize the behavioral anchor language on the Communication Scale when providing written and verbal feedback to learners. This will emphasize the patient experience of observed behaviors in a framework they learners will understand because they are trained on the tool, too

7. **Review Verbal Feedback Manual** (75 minutes total: 25 minutes each to review-manual, for Waste Basket and Mirror Exercises and for Constructing Feedback Qualities based on SP stories)

   (sample Feedback manual provided as Appendix 8)

   - Reiterate (quickly) purpose of feedback in medical education
   - Identify constructive feedback qualities based on SP stories exercise
   - Conduct Mirror Exercise *(see earlier in chapter for activity description)*
   - Review I-statement format and the Verbal Feedback Form
   - Learn the definition of unconscious bias and consider in relation to providing SP feedback to learners
   - Review Verbal Feedback Format Sheet
   - Review Handout with emotion/feeling words

   (If it is possible to get through all of the material before the break without rushing, then it is recommended to do so. Leaving as much time as possible for practice is optimal.)

10-minute BREAK

(This break is for the SPs not for SPEs. During the break it is recommended SPEs cue up the sample encounter video(s) so there are not technical difficulties that delay the training session during the valuable practice time in the last hour.)

8. **Practice Writing Feedback and Delivering Verbal Feedback** (50 minutes)

   (To maximize practice time, it is ideal to have a video in approximately 5 minutes in length, no more than 10 minutes. The video should ideally be of a learner demonstrating effective and ineffective communication skills. If necessary, it is recommended your SP program make a video so that you can stage these observable behaviors into a concise timeframe. Scripting and staging your own video are also helpful to SPEs as they are most familiar with the behaviors in relation to the training session learning objectives. This also provides an opportunity for collaboration with a clinical faculty member at your home institution if you have them play the learner. Not all clinicians are comfortable to do this, but many enjoy it. Ask and see!)

   - Watch sample SP/learner encounter video
   - Create constructive written and verbal feedback based on video
   - Practice giving written feedback as verbal feedback to peer

- Large group sharing both written and verbal feedback
- Additional practice video if time permits

9. **Review/Restate Learning Objectives for Training Session** (5 minutes)
   - Appreciate significance of SP feedback in health professions education
   - Familiarize yourself with logistics related to providing feedback including setting, format, materials, timing
   - Create list of constructive feedback qualities applicable to health professions education
   - Learn home institution format for providing feedback to learners
   - Practice writing constructive feedback
   - Practice delivering constructive verbal feedback
   - Build confidence in providing constructive feedback to learners

10. **Questions?** (5 minutes)

    (Give formal opportunity to ask questions not already brought up and answered throughout the training session.)

Appendix 2: Sample List of Feelings and Emotions

Positive Feelings

Acknowledged	Appreciated	At Ease
Calm(ed)	Cared for	Cheered
Comfortable	Comforted	Confident
Connected	Delighted	Encouraged
Engaged	Engrossed	Enthusiastic
Excited	Friendly	Glad
Grateful	Guided	Happy
Helped	Helpful	Hopeful
Inspired	Intrigued	Nurtured
Open	Pleased	Reassured
Received	Relaxed	Relieved
Respected	Satisfied	Sensitive
Supported	Surprised	Sympathetic
Touched	Trusting	Understood
Warm		

Negative Feelings

Afraid	Agitated	Alienated
Angry	Annoyed	Anxious
Apathetic	Apprehensive	Belittled
Bitter	Concerned	Confused
Cut off	Dehumanized	Dejected
Demeaned	Desperate	Discouraged
Dismayed	Distant	Disqualified
Disrespected	Edgy	Embarrassed
Exasperated	Frustrated	Helpless hostile

Indifferent	Ignored	Impatient
Infuriated	Interrupted	Irate
Irritated	Judged	Livid
Nervous	Outraged	Overwhelmed
Patronized	Passive	Peeved
Provoked	Put down	Puzzled
Rushed	Skeptical	Shamed
Tentative	Terrified	Torn
Troubled	Uncomfortable	Uneasy
Unsure	Withdrawn	Worried

Appendix 3: Sample Case with Case Specific Feedback

Val G. Hemming Simulation Center

Uniformed Services University of the Health Sciences

SP Case: Charlie Harper, Spouse of Patient Frankie Harper, Patient

Standardized patient (SP) case author and date written: Lou Clark, PhD, MFA – Deputy Director of Clinical Simulation for the Val G. Hemming Simulation Center; Chris Neal, MD – Program Director Neurosurgery at Walter Reed Military Medical Center on 8/1/16.

Date(s) and content revised: 8/10/16 by Dr. Clark with contributions from Grant Cloyd, MFA- Clinical Educator; Jennifer Brown, On-Call SP Trainer; Jon Reynolds, On-Call SP Trainer; and Standardized Patients Topher Bellavia, Jack Evans, Tiffany Garfinkle, Kristina Riegle, and Clare Schaffer.

Case objective(s) for learners:

There are three sets of objectives for the Neurosurgery residents that are to be assessed during the parts of this longitudinal case that focus on breaking bad news and obtaining informed consent.

Objectives Part 1 – objectives for breaking bad news (assessed during parts 1 and 4 of the case):

1. Explain to patient's family member that their spinal cord has been injured
2. Clearly explain the extent of the spinal cord injury
3. Explain what the extent of the spinal cord injury means (i.e. physical deficits)
4. (4a) Explain acute treatment and recovery plan (4b) Explain needs for future treatment/procedures
5. Give prognosis for recovery (short term/week vs. long term/1 year)
6. Communicate the bad news in a manner that demonstrates empathy/compassion for the patient's family member including by validating the fact it is understandable to be upset – this is not good news
7. Gauge family member for their level of understanding of the patient's health status

Objectives Part 2 – objectives for obtaining informed consent (assessed during parts 2 and 3 of the case):

1. Educate the patient's family member as to why surgery is needed
2. Describe to the patient's family member what surgery involves
3. Assess the knowledge the family member has with regards to patient's health care wishes
4. Review the risks of surgery with the patient's family member
5. Explain the benefits of having the surgery to the patient's family member
6. Obtain informed consent for surgery from the patient's family member

Objectives Part 4 – objectives for breaking bad news (assessed during part 4 of the case):

1. Explain clearly to patient's family member that their spouse has died
2. Provide summation of why the patient died
3. Demonstrate empathy
4. Validate family member's emotional response
5. Answer all of the family member's questions
6. Mention support services hospital provides (i.e. chaplain)
7. Offer opportunity to see the deceased patient for as long as the spouse wishes

Diagnosis: Learners will be provided with the fact the patient has sustained a C5–6 Fracture-Dislocation.

Family Member Communication Issue: The spouse of this patient will be told that they have sustained a serious spinal cord injury; at two, separate times that the patient needs operations; and finally that the patient has died.

Family Member Opening statement: *"I've been here waiting and no one will tell me anything."*

Family Member demographics:

- **Age range:** 30–60
- **Gender:** Male or female
- **Ethnicity:** Any
- **Height/Weight:** Any

Medical Setting/Location: Trauma Waiting Room
Patient clothing: Street Clothes
Is there a gown required during encounter? No

Is there a door sign with this case? Yes, there are 4 door signs, one for each part of this case, CAE Learning Space Pre-Encounter

Are there debrief sessions with this case? Yes, there are 4 debrief sessions associated with this case. One after each of the encounters. The standardized patient (SP) will also provide verbal feedback to residents following the fourth encounter.

Presenting Situation (Part 1 of 4)

Patient Information	
Name:	Frankie Harper
Setting:	Trauma Waiting Room
Time:	3 hours after the car accident occurred
Known Information:	Patient was in a car accident, hit by a drunk driver 3 hours ago. You have X-ray and PE that shows fracture dislocation. The patient is currently getting CT and MRI scans, which you are waiting on.
Vital Signs	
BP:	132/70
Pulse:	72/minute
Resp.:	12/minute
Temp.:	98.6 F
Learner Instructions	
Tasks:	
• Explain to patient's family members that their spinal cord has been injured	
• Explain to family member you are waiting on CT and MRI scans that will reveal more about the injury	
Time Limit:	20 Minutes

Presenting Situation (Part 2 of 4)

Patient Information	
Name:	Frankie Harper
Setting:	Trauma Waiting Room
Time:	1 hour after you initially spoke with the family member
Known Information:	CT scan shows a fracture dislocation through the body of C-5. MRI shows cord compression at C-5 with significant T-2 signal change from C-4 to C-6. You are going to do a C-5 corpectomy with C-4 to C-6 anterior spinal fusion with a posterior C-4 to C-6 spinal fusion.
Vital Signs	
BP:	140/85
Pulse:	80/minute
Resp.:	15/minute
Temp.:	98.7 F
Learner Instructions	
Tasks:	
• Obtain informed consent from family member for C-5 corpectomy	
Time Limit:	20 Minutes

Presenting Situation (Part 3 of 4)

Patient Information	
Name:	Frankie Harper
Setting:	In patient
Time:	10 days post spine-surgery and 4 days post tracheostomy and percutaneous G-tube placement.
Known Information:	Patient has increasing fever, bad wound infection, and incision is breaking down. There has been no neurological improvement since surgery. At this point, the infection must be cleaned and incision closed.
Vital Signs	
BP:	95/70
Pulse:	95/minute
Resp.:	15/minute
Temp.:	102.1 F
Student Instructions	
Tasks:	
• Obtain informed consent to clean out infection and close wound	
Time Limit: 20 Minutes	

Presenting Situation (Part 4 of 4)

Patient Information	
Name:	Frankie Harper
Setting:	In patient
Time:	7 days following attempt to clean out infection and close wound.
Known Information:	Patient has died after becoming septic after 7 days of wound care.
Learner Instructions	
Tasks:	
• Tell the family member the patient has died.	
Time Limit:	20 Minutes

Trainer Notes: Charlie Harper/Frankie Harper Case

Trainers: Lou Clark – lead trainer; Jennifer Brown & John Reynolds, on-call trainers.

  Date: August 9 & 10, 2016

  Activity: Neuro Resident OSCE – August 15, 2016.

  Describe any changes (e.g. specific case information or relevant past medical history) to the checklist:

  Describe any changes in or clarification to case details and why:

  Describe any changes in the door sign:

  Describe adjustments or changes in SP portrayal (e.g. affect, verbal or non-verbal cues):

  Describe changes in information/responses given by SPs (e.g. medication cards, findings cards, ways of answering open- and close-ended questions):

  Describe any new training tools/aids/techniques used (e.g. relevant Mind Map, timelines, previous encounters reviewed):

  Describe props and how used:

  Describe any pressing issues for immediate or future changes (e.g. new questions to checklists):

  Describe any problems/difficulties to bring to debrief/ SPOT meeting for resolution (e.g. student issues from debrief, awkward case moments):

Standardized Patient Training Notes

Case description and timeline:	This is a compressed, longitudinal case designed with 4 discrete parts to assess the abilities of Neurosurgery residents at Walter Reed Hospital in breaking bad news to and obtaining informed consent from a family member who has had a loved one suffer a serious spinal cord injury. This case is designed so that all 4 parts happen chronologically on the same day in the Simulation Center with debrief sessions in between each part. However, the timeline of the case, were it actually happening in real time, takes place over the course of approximately two and a half weeks:
	Part 1: Spouse arrives at hospital and told patient suffered serious spinal cord injury 3 hours ago due to car accident
	Part 2: 1 hour later, spouse is told patient needs surgery to survive
	Part 3: 10 days later, spouse is told patient is not making progress and needs further surgery
	Part 4: 1 week following the second surgery, spouse is told patient has died
Patient name:	Frankie Harper

Family member name:	Charlie Harper, spouse of patient
Social history:	You are Charlie Harper, (use your own age which should be between 30 and 60 years old), years old. Your spouse, Frankie Harper, is the same age as you. You and Frankie have been very happily married for the past 5 years. You live together in a house you own in Rockville, MD with your dog. You do not have children. You have a strong connection as neither of you have siblings and neither of you have the presence of parents in your life as relatively young people. (Frankie's parents are both dead and you are estranged from yours.) when you met each other, you each really felt you "got" one another because of this. You met on a camping trip and were introduced by good friends and have been inseparable ever since. You are each other's primary source of support along with a close circle of friends you've developed over the years living in the area and at your work. You work as an English Professor at Montgomery College in Rockville, a job you love. You have been teaching there for several years since finishing your Master's in English at UMD College Park. You are passionate about helping your students learn developmental English language skills and often spend extra time outside the classroom coaching them and have even helped a few study for their U.S. citizenship exam.
Social history (cont.):	Frankie just left the military, a career he/she loved. Frankie began as an enlisted soldier in the Army and worked his/her way up as he/she took college courses while working full time. Frankie graduated from college during this time ago and was subsequently promoted to Second Lieutenant. He/she served as a Communication Specialist in the military and was proud to have served and returned successfully from two tours in Iraq. Not wanting to tempt fate, Frankie recently decided it was time to leave the military and was discharged honorably. He/she always loved training and had recently landed a job as a corporate trainer working in Human Resources which he/she was set to start in 2 weeks. You were both scheduled to spend the next 2 weeks together on vacation, celebrating Frankie's transition to civilian life. This was supposed to be a very happy time for you both.
Part 1:	You received a call from someone at the hospital about an hour ago asking if Frankie was your spouse. When you said "yes", they told you to please come quickly. You arrived and waited for several minutes. The first person you will speak with about Frankie's condition (your learner for the day – a Neurosurgery resident) will break the bad news to you that Frankie was in a car accident 3 hour prior. Frankie was hit by a drunk driver and sustained a very serious, spinal cord injury. The driver who hit Frankie died on impact. You are sad and shocked when receiving the news that Frankie has suffered a serious spinal cord injury. From this point forward, the Neurosurgery resident will be your point of contact for information about Frankie over the next two and a half weeks.
Clothing, part 1:	Street clothing, what you were wearing when you rushed to the hospital when you heard your spouse was there.
Reason for visit: Part 1:	All you know is that your spouse was in a serious accident so you came to the hospital
Opening statement, part 1:	*"I've been here waiting and no one will tell me anything."*
Opening follow up, part 1:	*"I want to see Frankie."*
Trigger question, part 1: Trigger question, part 1 (cont.):	*"Do you think Frankie will ever walk again?"* ∗Instructions to SPs: Ask this question after the resident explains the extent of Frankie's spinal cord injury. Ask it even if they have already told you it is unlikely that Frankie will walk again.
Additional questions to ask suggested by first SPs cast in this case – Part 1:	*"Is Frankie awake?"* *"Is Frankie in pain?"*
Doorknob challenge – Part 1:	*"When can I see Frankie?"* ∗Instructions to SPs: Only ask this question if the resident completes the encounter and is leaving the room with time to spare.
Communication style part 1:	**Emotional cues:** SPs who initially portrayed this case articulated the following emotional responses during a guided meditation training exercise that they experienced in the moments before encounter 1 – "Frustrated, Afraid, Freaked Out, Impatient, Ignored, Powerless, "I just want someone to come in here at this point whatever it is." **Physical cues:** SPs who initially portrayed this case articulated the following physical responses during a guided meditation training exercise that they experienced in the moments before encounter 1 – "Shaky, tense." **General notes:** You are shocked and very, very sad. You may look at the floor, you may look away from the resident. If it feels natural you would cry when you hear the news that your spouse's injury is very serious. If the resident tries to comfort you with an appropriate touch to the hand, shoulder, etc., you will accept it.
PART 2	ONE HOUR LATER
Part 2:	You waited, as instructed, for more news about Frankie. It's been over an hour now and your mind is racing with worry. You are confused, out of sorts, and beginning to get suspicious as to what is going on and wondering why no one is coming back to tell you anything. The resident enters and tells you Frankie needs a complicated, two stage surgery called C5 Tx to decompress the spinal cord to allow for maximal healing and to stabilize the neck. The surgeons will need to go in the front and back of his/her spine with a drill. The resident educates you as to the risks and benefits of this surgery. They then explain that they need your consent in order to proceed. You are hesitant but will give your consent for them to proceed.

Clothing, part 2:	You are in the same clothes as you were for Part 1, but you should appear more haggard and disheveled now in Part 2.
Reason for visit: Part 2:	You are waiting in the hospital, as instructed by the resident, to get more news about Frankie's condition.
Opening statement, part 2:	*"What's happening with Frankie?"*
Opening follow up, part 2:	*"We were supposed to be heading to the shore this week."*
Trigger questions, part 2:	*"If this were your wife/husband, would you give consent for the surgery?"∗* ∗<u>Instructions to SPs – ask this question</u> after resident explains risks and benefits of surgery *"Could Frankie die?"∗∗* <u>Instructions to SPs – ask this question is resident does not mention "death" as risk of surgery</u>
Additional questions to ask in suggested by first SPs cast in this case – Part 2:	*"Is there another option?"* *"What are the chances this will work?"* *"Is this a common procedure?"* *"How many times have you done this procedure?"*
Doorknob challenge – Part 2:	*"I want to see Frankie before the surgery"∗* ∗<u>Instructions to SPs: Ask this question when the resident is about to leave the room **even** if time has run out for the encounter.</u>
Communication style part 2:	**Emotional cues:** SPs who initially portrayed this case articulated the following emotional responses during a guided meditation training exercise that they experienced in the moments before encounter 2 – **"**<u>Frustrated, Pissed off, Angry, Resentful, Stuck, Worried, Impatient, Distracted, Restless, Helpless."</u> **Physical cues:** SPs who initially portrayed this case articulated the following physical responses or demonstrated them physically during a guided meditation training exercise that they experienced in the moments before encounter 2 – <u>"Fidgety, arms closed tightly over and across chest, arm propping up head, looked down and away.</u>
Communication style part 2 (cont.):	**General notes:** Your speech and posture should reflect that you are sad, and slightly suspicious of the resident who has kept you waiting for over an hour. Your posture is indicative of you wanting to hear something, some news about how Frankie is doing. You may wring your hands, pace, and exude some nervous energy if it feels natural to you.
PART 3	**TEN DAYS LATER**
Part 3:	You have been at the hospital every day for the past 10 days since the surgery. It doesn't seem like much has changed and the resident comes in to speak with you about complications from the surgery. He tells you there has been no neurological improvement since the surgery. Also, apparently Frankie's surgical wound and incision has become infected and is breaking down. The resident tells you that he needs to get your consent in order to do an additional surgical procedure to clean out the infection and close the incision. You are very angry and will reluctantly agree to this procedure but only after you feel completely convinced this resident is not going to cause further harm to Frankie.
Clothing, part 3:	You are in sweats or the equivalent. Hair is messy. You've been camped out at the hospital for days.
Reason for visit: Part 3:	You are being visited by the resident as he needs to update you on Frankie's condition which requires an additional surgical procedure for which he needs to obtain informed consent.
Opening statement, part 3:	*"Every time I see you it seems like things get worse."*
Opening follow up, part 3:	*"I thought you said this surgery would help Frankie."*
Trigger question, part 3:	*"If you didn't do the surgery last time, who's going to do it this time and why aren't they here talking to me?"∗* ∗<u>Instructions to SPs – ask this question if the resident tries to shift the blame for Frankie's condition to another doctor who performed Frankie's first surgery.</u>
Additional questions to ask in suggested by first SPs cast in this case – Part 3:	*"This is a hospital, how the hell did this happen?"* *"What the fuck is going on?"*
Doorknob challenge – Part 3:	"What would you do if this was your spouse?"∗ ∗<u>Instructions to SPs: Only ask this question</u> if the resident completes the encounter and is leaving the room with time to spare.
Communication style part 3:	**Emotional cues:** SPs who initially portrayed this case articulated the following emotional responses during a guided meditation training exercise that they experienced in the moments before encounter 3 – <u>"Tired, lost, despondent, guilt, sad, scared, confused"</u> **Physical cues:** SPs who initially portrayed this case articulated the following physical responses or demonstrated them physically during a guided meditation training exercise that they experienced in the moments before encounter 2 – <u>"Exhausted, Drained, Frozen" There was a noticeable stillness in moments before SPs begin Part 3.</u> **General notes:** You are angry. You are sick and tired of this bad news and the fact that there was a complication with Frankie's surgery makes you doubt this resident. You may raise your voice, and use foul language – whatever is a comfortable display of anger for you. You may clench your fists, clench your teeth, and/or demonstrate anger in any way you see fit as long as you do not harm the resident or yourself.

PART 4	SEVEN DAYS LATER
Part 4:	A nurse has just ushered you into a quiet, exam room following a code the doctors called in Frankie's room. You were on your way back from the cafeteria when you saw the commotion. You ran for the door, but the nurse asked you to please wait, and come in here. The resident comes in and tells you that despite their best efforts, Frankie's died. You are devastated. Your whole life just changed in this moment. Everything you just imagined for the next few weeks and for the rest of your life has taken on a different landscape, one without Frankie.
Clothing, part 4:	You are in a different pair of sweats, jeans, or something disheveled and look your worst yet in terms of outward appearance.
Reason for visit: Part 4:	You are being told Frankie has just died.
Opening statement, part 4:	*"The nurse told me to wait here."*
Opening follow up, part 4:	*"I just left for a few minutes, to get something to eat."*
Trigger question, part 4:	*"What am I supposed to do now?"*∗ ∗Instructions to SPs – ask this question after resident explains Frankie is dead.
Additional questions to ask in suggested by first SPs cast in this case – Part 4:	*"How did this happen?"*
Doorknob challenge- part 4	*"Do you know what it feels to lose someone like this?"*∗ ∗Instructions to SPs: Only ask this question if the resident completes the encounter and is leaving the room with time to spare.
Communication style part 4:	**Emotional cues:** SPs who initially portrayed this case articulated the following emotional responses during a guided meditation training exercise that they experienced in the moments **before** encounter 4 – "Panicked, terrified, 'this is it', 'scared to death'. SPs who initially portrayed this case articulated the following emotional responses during a guided meditation training exercise that they experienced in the moments **during** encounter 4 – "Grief, Anguish, Confused, Guilty, Lost, Helpless, Angry, Numb, Scared." **Physical cues:** SPs who initially portrayed this case articulated the following physical responses or demonstrated them physically during a guided meditation training exercise that they experienced in the moments **before and during** encounter 4 – "Drained, Sick, Numb, Paralyzed, Chocked." **General notes:** You should feel free to communicate verbally and non-verbally in any way(s) that feels authentic to you throughout this encounter.
MEDICAL HISTORY	ABOUT THE PATIENT, IF ASKED DURING ANY PART
Patient's past medical history:	If asked, Frankie has always been healthy. Frankie has no history or diagnosis of chronic health issues. If female, there is no chance Frankie could be pregnant.
Patient's family medical history: Patient's family medical history (cont.):	Frankie's parents have both passed away, her/his mother of breast cancer in her mid-50's and her/his father died 3 years later from a heart attack. His father just "let himself go" with excessive drinking and poor health habits after Frankie's mom died. Frankie has no siblings. So, as Frankie's spouse, you must make all medical decisions needed.
Patient's current medications & allergies to medications:	Frankie is not allergic to any medications that you know of and is also not taking any medications right now.
Patient's lifestyle risk factors:	**Activities**: Frankie is active, works out regularly, and has always been in great shape. You are both health conscious and enjoy cooking together and taking day hikes around the area. **Sexual history**: You've been monogamous with each other for the past 7 year. Neither of you has had STD's during this time. **Alcohol**: Very seldom, special occasions once/twice a month. **Drugs**: None **Tobacco**: None
Organ donation	**If asked**: Frankie was not an organ donor.
Patient's health maintenance practices:	**Immunizations**: Up to date **Physical checkups**: Up to date **Dental care**: Up to date

SPs will provide the following feedback to learners after each Part:

1. EECS– Communication Scale
2. Written feedback to support EEC scoring

SPs will provide the following feedback to learners after the 4th Part:

1. Verbal Feedback

Learner post-encounter after the 4th Part of the case:

1. Self-reflection about all four parts of the case

Faculty checklist: (see separate checklist).

Appendix 4: Essential Elements of Communication Scale (4 Parts)

2. BUILD A RELATIONSHIP   ● 1   ● 2   ● 3   ● 4   ● 5

	1	2	3	4	5
Empathy & Attitude	• **Gives false reassurance** • **Does not acknowledge your situation** If the learner demonstrates any variation on the above behavior, mark this anchor reflecting a '1' or '2' score. It is especially important that learners do not provide false reassurance as this is a serious injury that may not have a good outcome. Giving you false reassurance at this point also sets up the learner to fail when giving bad news in subsequent encounters because you, the family member, will be much less likely to trust them. Also, if the learner does not acknowledge your situation, meaning if they ignore your emotions about the severity of injury to your spouse, mark this anchor reflecting a '1' or '2' score.		• **Demonstrates or expresses appropriate concern for you** If the learner offers you statements of support when you express worry/concern/ sadness/ or any emotions for your spouse, mark this anchor reflecting a '3' score.		• **Expresses genuine concern throughout the entire encounter** In addition to providing statements of support to you when you become emotional, if the learner provides appropriate comfort, touch, and follows up on your emotions by asking open ended questions to explore your life with your spouse, mark this anchor reflecting a '4' of '5' score depending on how supported you feel. Remember, a '5' score should reflect that this provider is among the best you have ever seen.

NOTES FOR GLOBAL RATING SCORING & PROVIDING CONSTRUCTIVE SP FEEDBACK: As you score the EEC for part 1 of this case, please pay special attention to the above anchors and score them as directed. Also, please tailor your written S P feedback to these anchors specifically.

Appendix 5: Sample SP Verbal Feedback (Reproduced with permission from Ed Fancovic, MD, University of New Mexico)

5. SHARE INFORMATION	● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Vocabulary	• **Uses language you don't understand** • **Uses inappropriate language (slang or technical)** It is important learners explain the patient's spinal cord injury in a manner you can understand. If the learner uses technical vocabulary that you do not understand and does not clarify it for you when asked, mark this anchor reflecting a '1' or '2' score depending on you felt when this was happening.		• **Uses language appropriate to your educational or intellectual level** • **Clarifies vocabulary upon request** If the learner provides general information about the injury and the needed surgery in a manner you understand and clarifies information upon your request AND clearly states they need to obtain your informed consent before moving forward with surgery, score a '3'.		• **Checks your understanding of technical words and explains if necessary** If the learner asks you if you understand what he/she is explaining to you and offers further explanation if you don't understand AND the learner answers any and all questions you have regarding the informed consent process, score this person a '4' or '5' depending on their skill level and how you felt when this was happening.
Clinician Information and Explanation	• **Ignores your request for information** If the student does not provide you with information upon your request, mark this anchor reflecting a '1' score.		• **Gives information that is specific and clear but not personalized** If the student addresses your concern about finding out more information about your spouse as quickly as possible, mark this anchor reflecting a '3' score.		• **Tailors information to you (values, meaning, life context, readiness)** If the student provided information about the surgery and informed consent sensitively – acknowledging that this is a traumatic situation without rushing you; mark this anchor reflecting a '4' or '5' score depending on their skill level and how you felt when they were sharing this information.

GLOBAL RATING SCORING NOTE: As you score the EEC for part 2 of this case, please pay special attention to the above anchors and s core them as directed. Also, please tailor your written SP feedback to these anchors specifically

Appendix 6: Sample Communication Tool (Reproduced with permission from Ed Fancovic, MD, University of New Mexico)

5. SHARE INFORMATION	● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Vocabulary	• **Uses language you don't understand** • **Uses inappropriate language (slang or technical)** It is important learners explain that the patient's health status is declining so further surgery/ procedures are needed to treat your spouse. If the learner uses technical vocabulary that you do not understand and does not clarify it for you when asked, mark this anchor reflecting a '1' or '2' score depending on you felt when this was happening.		• **Uses language appropriate to your educational or intellectual level** • **Clarifies vocabulary upon request** If the learner provides general information about why further surgery is needed in a manner you understand and clarifies information upon your request AND clearly states they need to obtain your informed consent again before moving forward with surgery, score a '3'.		• **Checks your understanding of technical words and explains if necessary** If the learner asks you if you understand what he/she is explaining to you and offers further explanation if you don't understand AND the learner answers any and all questions you have regarding the informed consent process, score this person a '4' or '5' depending on their skill level and how you felt when this was happening. *Please also pay special attention to how the resident navigates your emotions as an angry spouse as they are negotiating to get your informed consent.*
Clinician Information and Explanation	• **Ignores your request for information** If the student does not provide you with information upon your request, mark this anchor reflecting a '1' score.		• **Gives information that is specific and clear but not personalized** If the student addresses your concern about understanding why further surgery is needed at this time, mark this anchor reflecting a '3' score.		• **Tailors information to you (values, meaning, life context, readiness)** If the student provided information about this further surgery and informed consent sensitively – acknowledging that this it is understandable that you would be frustrated at this point; mark this anchor reflecting a '4' or '5' score depending on their skill level and how you felt when they were sharing this information.

GLOBAL RATING SCORING NOTE: As you score the EEC for part 3 of this case, please pay special attention to the above anchors and score them as directed. Also, please tailor your written SP feedback to these anchors specifically.

Appendix 7: Sample SPE Observation Form

4. UNDERSTAND THE PATIENT PERSPECTIVE	● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Expression of Feelings	• **Changes the subject when you express emotion** If the learner demonstrates any variation on the above behavior, mark this anchor reflecting a '1' or '2' score. It is especially important that learners allow you to express your emotion following the death of a loved one. Suppressed grief can be very damaging in the short and long term for the health of the loved one.		• **Recognizes and acknowledges explicit expressions of emotions** • **Asks about your emotions after you have given clues** If the learner listens, acknowledges that you are devastated, and checks in/asks how you are feeling once you have reacted to the news that your spouse has died, mark this anchor reflecting a '3' score.		• **Facilitates the expression of your feelings** • **Anticipates emotional reactions you might be expected to have** • **Responds to your perspective as understandable and valid** If the learner helps you to work through your feelings after hearing the bad news, provides support statements or some other indications acknowledging that they understand and empathize with you about the emotional gravity that comes with the death of your spouse, and responds to your emotion as valid, mark this anchor reflecting a '4' of '5' score depending on how supported you feel. Remember, a '5' score should reflect that this provider is among the best you have ever seen.

NOTES FOR GLOBAL RATING SCORING & PROVIDING CONSTRUCTIVE SP FEEDBACK: As you score the EEC for part 4 of this case, please pay special attention to the above anchors and score them as directed. Also, please tailor your written SP f eedback to these anchors specifically

Appendix 8: Sample Feedback Manual for SPs (Reproduced with permission of Jennifer Styron, EVMS)

Creating and Giving

Constructive Verbal Feedback

2. BUILD A RELATIONSHIP	● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Empathy & Attitude	• **Gives false reassurance** • **Does not acknowledge your situation** If the learner demonstrates any variation on the above behavior, mark this anchor reflecting a '1' or '2' score. It is especially important that learners do not provide false reassurance, as this is a serious injury that may not have a good outcome. Giving you false reassurance at this point also sets up the learner to fail when giving bad news in subsequent encounters because you, the family member, will be much less likely to trust them. Also, if the learner does not acknowledge your situation, meaning if they ignore your emotions about the severity of injury to your spouse, mark this anchor reflecting a '1' or '2' score.		• **Demonstrates or expresses appropriate concern for you** If the learner offers you statements of support when you express worry/concern/sadness/ or any emotions for your spouse, mark this anchor reflecting a '3' score.		• **Expresses genuine concern throughout the entire encounter** In addition to providing statements of support to you when you become emotional, if the learner provides appropriate comfort, touch, and follows up on your emotions by asking open ended questions to explore your life with your spouse, mark this anchor reflecting a '4' of '5' score depending on how supported you feel. Remember, a '5' score should reflect that this provider is among the best you have ever seen.

How did you feel when the resident broke the bad news to you that your spouse has had a serious spinal cord injury?

I felt _____ **When you** _____

I would have preferred _____

So that I felt _____

A Training Manual for Standardized Patients
   Written & Facilitated by Lou Clark, PhD, MFA
   Deputy Director of Clinical Simulation Assistant Professor of Medicine
   With thanks and acknowledgment for contributions from Nancy Schneider, RN, MBA, PhD
   Director of Assessment & Learning at the University of New Mexico School of Medicine

Creating and Giving Constructive Verbal Feedback

A Training Manual for Standardized Patients

Training Agenda:

- Feedback is like water, a few ripples are enough to create change.

- Why is constructive feedback literally a reflection (i.e. water, a mirror)?
- Discuss the general purpose of feedback and in a medical education setting
- Create our own definition of constructive feedback
- Learn difference between positive and negative vs. constructive and non-constructive feedback
- Describe the purpose of verbal feedback in relation to written feedback
- Review the "I" statement format for offering constructive feedback
- Describe the context of post-encounter verbal feedback
- Practice verbal feedback

Constructive Feedback Is Literally a Reflection

5. SHARE INFORMATION ● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Vocabulary	• **Uses language you don't understand** • **Uses inappropriate language (slang or technical)** It is important learners explain the patient's spinal cord injury in a manner you can understand. If the learner uses technical vocabulary that you do not understand and does not clarify it for you when asked, mark this anchor reflecting a '1' or '2' score depending on you felt when this was happening.		• **Uses language appropriate to your educational or intellectual level** • **Clarifies vocabulary upon request** If the learner provides general information about the injury and the needed surgery in a manner you understand and clarifies information upon your request AND clearly states they need to obtain your informed consent before moving forward with surgery, score a '3'.		• **Checks your understanding of technical words and explains if necessary** If the learner asks you if you understand what he/she is explaining to you and offers further explanation if you don't understand AND the learner answers any and all questions you have regarding the informed consent process, score this person a '4' or '5' depending on their skill level and how you felt when this was happening.
Clinician Information and Explanation	• **Ignores your request for information** If the student does not provide you with information upon your request, mark this anchor reflecting a '1' score.		• **Gives information that is specific and clear but not personalized** If the student addresses your concern about finding out more information about your spouse as quickly as possible, mark this anchor reflecting a '3' score.		• **Tailors information to you (values, meaning, life context, readiness)** If the student provided information about the surgery and informed consent sensitively – acknowledging that this is a traumatic situation without rushing you; mark this anchor reflecting a '4' or '5' score depending on their skill level and how you felt when they were sharing this information.

How did you feel when the resident obtained informed consent from you to do the C-5 corpectomy surgery?

I felt _____ When you _____

I would have preferred _____

So that I felt _____

Constructive feedback should be offered objectively in order to accurately reflect observed behavior back to the learner. The ability of a novice to self-reflect is an essential step in developing their learning new skills.

Does the reflection in the water match the image above the surface?

Rudolph J, et al. Debriefing with Good Judgment: Combining Rigorous Feedback with Genuine Inquiry; Anesthesiology Clinics, Volume 25, 2007, 361–376.

Non-constructive Feedback Skews the Reflection

5. SHARE INFORMATION		● 1 ● 2 ● 3 ● 4 ● 5

	1	2	3	4	5
Vocabulary	• **Uses language you don't understand** • **Uses inappropriate language (slang or technical)** It is important learners explain that the patient's health status is declining so further surgery/procedures are needed to treat your spouse. If the learner uses technical vocabulary that you do not understand and does not clarify it for you when asked, mark this anchor reflecting a '1' or '2' score depending on you felt when this was happening.		• **Uses language appropriate to your educational or intellectual level** • **Clarifies vocabulary upon request** If the learner provides general information about why further surgery is needed in a manner you understand and clarifies information upon your request AND clearly states they need to obtain your informed consent again before moving forward with surgery, score a '3'.		• **Checks your understanding of technical words and explains if necessary** If the learner asks you if you understand what he/she is explaining to you and offers further explanation if you don't understand AND the learner answers any and all questions you have regarding the informed consent process, score this person a '4' or '5' depending on their skill level and how you felt when this was happening. *Please also pay special attention to how the resident navigates your emotions as an angry spouse as they are negotiating to get your informed consent.*
Clinician Information and Explanation	• **Ignores your request for information** If the student does not provide you with information upon your request, mark this anchor reflecting a '1' score.		• **Gives information that is specific and clear but not personalized** If the student addresses your concern about understanding why further surgery is needed at this time, mark this anchor reflecting a '3' score.		• **Tailors information to you (values, meaning, life context, readiness)** If the student provided information about this further surgery and informed consent sensitively – acknowledging that this it is understandable that you would be frustrated at this point; mark this anchor reflecting a '4' or '5' score depending on skill level/how you felt when they shared this information.

How did you feel when the resident obtained informed consent from you to do the procedure to clean the wound/close incision?

I felt_____ **When you** _____

I would have preferred _____

So that I felt _____

Non-Constructive feedback is not offered objectively and so does not accurately reflect observed behavior back to the learner. When feedback is not an accurate reflection of observed behavior learners may become confused and frustrated.

Does the reflection in the water match the image above the surface?

Feedback Purpose

To communicate observed behaviors of learners in a constructive style in order to facilitate behavior change and improve learning.

Feedback Purpose in Medical Education

- Standardized patients provide reflections of observed, communication behaviors to students in the form of verbal and written feedback – from a patient's perspective
- Standardized patients are experts on how it feels to be the patient but do not provide feedback on clinical skills
- The goal of feedback from standardized patients to students is to help students become doctors who have an awareness of how their patients feel.

The language of feedback is descriptive and not evaluative.
Ende J: Feedback in clinical medical education. JAMA 250:p780.

Recall a Time You Received Feedback: Creating Our Definition of Constructive Feedback

Through stories we will decide what qualities constitute constructive feedback.

Use the space below to take notes of feedback qualities during the group discussion.

Creating Constructive Feedback

- Focus on one moment per verbal feedback statement – less is more
- Use "I" statement somewhere in a sentence

- Begin with how you felt as the patient when recalling the moment you've chosen to focus on.
- Use a concrete, specific example of behavior you observed the student perform that supports your feeling.
- If your feeling is negative, includes a suggestion for a behavior the student could have performed that would have made you feel more positive about the encounter.
- Be honest and objective as possible
- Think of yourself as a mirror reflecting the experience back to the students

Review "I Statement" Format
SP Format for Giving Verbal Feedback:
(Example of first person delivery)

| 4. UNDERSTAND THE PATIENT PERSPECTIVE | ● 1 ● 2 ● 3 ● 4 ● 5 |

	1	2	3	4	5
Expression of Feelings	• **Changes the subject when you express emotion** If the learner demonstrates any variation on the above behavior, mark this anchor reflecting a '1' or '2' score. It is especially important that learners allow you to express your emotion following the death of a loved one. Suppressed grief can be very damaging in the short and long term for the health of the loved one.		• **Recognizes and acknowledges explicit expressions of emotions** • **Asks about your emotions after you have given clues** If the learner listens, acknowledges that you are devastated, and checks in/asks how you are feeling once you have reacted to the news that your spouse has died, mark this anchor reflecting a '3' score.		• **Facilitates the expression of your feelings** • **Anticipates emotional reactions you might be expected to have** • **Responds to your perspective as understandable and valid** If the learner helps you to work through your feelings after hearing the bad news, provides support statements or some other indications acknowledging that they understand and empathize with you about the emotional gravity that comes with the death of your spouse, and responds to your emotion as valid, mark this anchor reflecting a '4' of '5' score depending on how supported you feel. Remember, a '5' score should reflect that this provider is among the best you have ever seen.

How did you feel when the resident obtained informed consent from you to do the C -5 corpectomy surgery?

I felt _____ **When you** _____

I would have preferred _____

So that I felt _____

Constructive or Non-constructive Feedback?

Example 1:
"You did a good job of asking me questions."

Vs.

"I felt you were listening to me when you maintained eye contact and leaned forward in your chair while you asked me questions."

_____

_____

Example 2:
"I was scared when you told me I had cancer without preparing me for the news. I would have preferred you warned me so that I was more prepared when you gave me the bad news.

Vs.

"You scared me with the bad news."

_____

_____

Example 3:
"You made me feel like I was wasting your time when you kept looking at your watch."

Vs.

"I felt I was taking up your time and that I should stop talking when you looked at your watch three times."

_____

_____

Example 4:
"You made me frustrated when you asked about my worry then cut me off."

Vs.

"I was frustrated when you asked about my concern and then interrupted my response. I would have preferred you ask me a follow up question about my concern rather than interrupt my initial response, so that I felt you genuinely cared."

_____

_____

Instructions for Giving Verbal Feedback Post SP Encounter:

The student and faculty will re-enter the room 5 minutes after the encounter is over. When they come back and after they are seated, you (the SP) will begin the feedback session using the instructions below:

1. **Please repeat (or paraphrase) these two statements at the beginning of every verbal feedback session:**
   - _"I am here to give you feedback on what it felt like to be your patient."_
   - _"How do you feel it went?"_

2. **Acknowledge the student's response (This could be a verbal or nonverbal acknowledgement).**
3. **Once student has told you how he/she feels it went, repeat the next 'warning/preparation' statement:'**
   - _"Now I'm going to share what it felt like being your patient today."_
4. **Give verbal feedback to student using I-Statement format below.**
5. **Thank the student conclude the feedback in a timely manner. Remember less is more. It is important to offer a confident conclusion so the feedback session does not linger too long and lose impact:**
   - _"Thank you and good luck in your medical training."_

Something to remember – the statements above are suggestions. I encourage you to put these statements into your own words that are comfortable for you. Also, once you're comfortable and able to paraphrase these statements, you will sound more natural in your delivery.

Tips for Giving Verbal Feedback

- Help students become more aware of their <u>behavior</u> (verbal and non-verbal) and how it affects the patient.
- Students are not being graded with your feedback, but this is very useful information for the students to observe their behavior.
- Verbal feedback is not evaluative, you are not telling them what they forgot to do or did wrong in their clinical skills. You are observing their behavior and relating how you felt with them as their patient.
- One or two real clear statements of observed behavior are often enough. Don't try to list 5 or 6 different behaviors to change in one session, it is too much to remember for the student. This is a slow process of change.
- Try writing down a few key words immediately after the encounter to capture the Verbal Feedback essence, then go on to the checklist.
- Avoid words like "good" and "great". Be specific.
- Use "I" statements.

Sample Words (Case Specific)

Constructive (Positive Words)		Critical (Negative Words)	
Acknowledged	Helpful	Unheard	Ignored
Relieved	Encouraged	Frustrated	Distanced
Reassured	Engaged	Disappointed	Overruled
Cooperative	Connected	Depressed	Overwhelmed
Considered	Included	Unimportant	Oppressed
Pleased	Comforted	Nervous	Talked down to
Listened to	Optimistic	Uncomfortable	
Understood	Heard	Lectured to	Disrespected
		Anxious	
		Judged	

Experiential Feedback Words[1]

Positive Feelings

Acknowledged	Appreciated	At Ease	Calm(ed)	Cared for	Cheered		
Comfortable	Comforted	Confident	Connected	Encouraged	Engaged	Glad	
Grateful	Guided	Happy	Helped	Hopeful	Pleased	Reassured	Received
Relaxed	Relieved	Respected	Satisfied	Supported	Sympathetic	Understood	

Negative Feelings

Afraid	Alienated	Angry	Annoyed	Anxious	Belittled	Confused	Cut Off
Dehumanized	Demeaned	Disqualified	Disrespected	Embarrassed	Frustrated		
Ignored	Infuriated	Interrupted	Irritated	Judged	Nervous	Overwhelmed	
Patronized	Peeved	Provoked	Put Down	Rushed	Shamed	Tentative	
Terrified	Uncomfortable	Unsure	Worried				

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[1]Standardized Patient Manual, Bayer Institute for Health Care Communication, 2002.

Appendix 9: Common Mistakes with Verbal Feedback (Reproduced with permission of Jennifer Styron, EVMS)

Verbal Feedback

Common Mistakes in giving verbal feedback to a Learner and how to fix them

Providing SPs examples of incorrect and corrected feedback will stimulated discussion and allow for the SPE to explain common mistakes and how to fix them.

Below are some examples of common mistakes when giving verbal feedback, how to correct the mistakes and the explanations of why the incorrect feedback was a mistake

Example 1:

Incorrect Feedback:

"You needed to ask more of a family and social history – this caused you to miss the diagnosis."

Correct Feedback:

"We have already reviewed the checklist for the items you may have forgotten to ask, let's move on to the process or communication skills."

Explanation:

The content and the process are two different things. Standardized Patients may be asked to review a checklist with a Learner. This will show the Learner which items were considered important by the case author. It is not the SP's job to discuss if a Learner was thorough in the completion of the checklist or to discuss the diagnosis, only faculty can discuss these with the Learners.

Example 2:

Incorrect Feedback:

"I didn't like the way you came into the room and started firing questions at me."

Correct Feedback:

"As this patient, I felt overwhelmed and rushed with the fast paced questions. There were times that you asked me several questions without letting me answer. I was confused as to which question to answer.

Explanation:

The Learner hears "**I** didn't like you**.**" Keep in mind that you are portraying a Patient and should react as the Patient in role, but be very professional and detached from the role during feedback. Don't take Learner mistakes personally, remember that they are here to learn from you and are nervous about performance. Starting feedback in a negative fashion will cause any person to shut down and put up defenses. Always start feedback with a positive tone.

Example 3:

Incorrect Feedback:

"All in all, I think you did great – you were really wonderful."

Correct Feedback:

"You have a lot of great strengths in the techniques of the interview. Your open-ended questions allowed me to share some sensitive information and built rapport."

Explanation:

The first statement is too vague. The Learner will leave the room thinking that they have "aced" that session. Don't give the Learners the wrong or vague information. If you feel

a Learner is "wonderful" stop and think first why you feel that way. Which behaviors did they excel at? Be sure to give that feedback to the Learners and provide specific examples.

Example 4:
Incorrect feedback:

"You got a lot more information from me than any other Learner."

Explanation: Never compare Learners. This is not a competitive nor a comparative "sport" but an individual performance. Comments are to be specific and non-comparative

Adapted from Eastern Virginia Medical School

Appendix 10: Common Mistakes When Giving Written Feedback

Written Feedback

Common Mistakes in giving written feedback to a Learner and how to fix them

During training, providing the SPs with some examples of poorly written feedback, reasons why the feedback is not supportive of the learner and examples of revisions allows the SPE to guide the SP in the development of written feedback skills.

Below are some examples of common mistakes when giving written feedback, the explanations of why the original comment was in error and how to write constructive comments.

Original comment	Themes/Perceptions	Revision
Seemed flat as far as attitude goes.	Judgmental/it reads as if the SP didn't like the learner personally	*Tone of voice may be perceived as uninterested in Patient. Use of empathetic statements and verbal cueing suggested as alternatives.*
OUTSTANDING!!! Besides leaving out the drug history she nailed everything that she needed.	This comment addresses the scenario content – not the communication process. It gives the impression the Learner "passed" the assessment	*Facilitation and empathy techniques were strong throughout interview. Eye contact and tone of voice were warm and caring along with establishing rapport through the eliciting of Patients feelings, ideas and expectations of the visit.*
Did not use summarization.	No value to Learner	*Summarization is a technique the Learner may want to incorporate into the interviewing process. As the patient, I appreciate this technique because it tells me that the learner heard me correctly.*
Eye contact could be improved.	Advice – no sharing of ideas or solutions	*I feel rapport was established by open body language and conversational, friendly tone of voice. Eye contact was interrupted a number of times when the Learner looked at his watch and the clock on the wall, which concerned me that I was taking up his time.*
Good closing as far as what she thought was wrong with me.	Learner may perceive the SP is telling them the diagnosis was wrong.	*I was very clear on what was happening at the closure of the interview – what the Learner will do (set up some further tests), and what I had to do next (come back for another appointment after the tests). Some diagnoses and management plans were also discussed in a clear and easily understood language (no jargon was used by the Learner.)*

Adapted from Eastern Virginia Medical School

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Standardized/Simulated Patient Program Management and Administration – Spinning Plates

10

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Abbreviations

ASPE	Association of Standardized Patient Educators
CQI	Continuous Quality Improvement
FERPA	Family Education Rights and Privacy Act
GTAs	Gynecology Teaching Assistants
HIPPA	Health Insurance Portability and Accountability Act
HR	Human Resources
IAT	Implicit Association Test
IHI	The Institute for Healthcare Improvement defines
MUTA	Male Urogenital Teaching Assistants
ODI	Office of Diversity and Inclusion
P&P	Policy and Procedure
PDSA	Plan-Do-Study-Act method.
PE	Program Evaluation
PHI	Protected Health Information
SDOH	Social Determinants of Health framework
SMART	Specific, Measurable, Achievable, Relevant, Timeline
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
VMOSA	Vision, Mission, Objectives, Strategies, Action Plans

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Introduction

Standardized/Simulated Patient (SP) programs come in all shapes and sizes. A 2016 Association of Standardized Patient Educator (ASPE) survey revealed that while the average program may only have three to six full time employees, an SP Educator (SPE) can be responsible for over 100 SPs. Although the 2016 survey also revealed primary professional backgrounds for SPEs are education, theater, nursing and administration, the average SPE spends most of their time in administrative duties (44%) followed by education (38%) [2]. Whether you work in a stand-alone program with a few staff, or in a program embedded within a larger simulation program, having policies and procedures to guide ongoing administrative, educational, and quality management of your program is key to your success.

There are six key principles in Domain 4: Program Management in the Association of Standardized Patient Educators' (ASPE) Standards of Best Practice (SOBP).

These principles are: 4.1 Purpose, 4.2 Expertise, 4. 3 Policies and Procedures, 4.4 Records management, 4.5 Team management and 4.6 Quality management [1]. Each principle has associated practices to guide the SP Educator. In this chapter we will explore different facets of SP Program Management and Administration for the SPE while the principles of Domain 4 throughout the chapter.

The Beginning

The core of all successful Simulation Programs is effective leadership and management practices to lead, manage, and sustain change within organizations [3].

Managing a team of SPs effectively begins with fostering a healthy work environment for the core SP administrative staff – trainers, case developers, coordinators et al. Like any work environment, best practices include clear communication, trust and respect among colleagues, and a common vision and mission. These elements are arguably even more critical in an SP environment, given the high volume and varying types of tasks from inception to implementation of an event. These tasks are largely unique to SP education and assessment and therefore have limited documentation in the literature. They range from initial contact with the course director to clarify objectives and develop cases or scripts, to more granular jobs like loading scoring checklists into a data management system and physically preparing exam rooms with supplies, forms, or other props. A program checklist or inventory detailing each of these multiple steps is one tool that teams can use, but it is essential that there is a shared understanding of responsibilities among team members (who's doing what), the purposes of each of the tasks, and downstream effects if any task is not completed correctly (why we're doing it). Lack of specificity in instructions or assumptions about others' understanding can quickly lead to errors that impact the efficacy of the event.

Purpose

Whether are you creating a new program or working within a well-established program, having a well thought out **strategic plan** is essential. The process of developing a plan allows you to step back, examine where you are, where you want to go and how to get there. A good strategic plan can help your program set and achieve short and long-term goals. Being familiar with your larger institutions mission and vision statements as well as its stated values will help you align your strategic plan to support the wider institutional goal. To understand how to develop a strategic plan, we will borrow from the business world framework of Vision, Mission, Objectives, Strategies, Action Plans (**VMOSA**) with the addition of Program Evaluation (**PE**) as seen in Fig. 10.1 [4, 5].

- **V**ision- the dream
- **M**ission- the what and why
- **O**bjectives- what will be accomplished by when
- **S**trategies- the how
- **A**ction Plans- what change will be done by who by when
- **P**rogram **E**valuation- how do we know what was successful and what we need to change

Creating your vision and mission statements are the first 2 steps in the VMOSA strategic planning process. Without a clearly articulated vision/mission statement, one is operating without a compass. To quote the Roman philosopher Seneca "If you don't know where you are headed, no wind is favorable" [6].

Vision

A vision statement is a sentence or short paragraph that creates an image of the future, a common identity and answers the question "What will our success look like?" It is a wishful statement about what you *hope to accomplish/change or become* in the next 3–5 years. A good vision statement

Fig. 10.1 Strategic plan
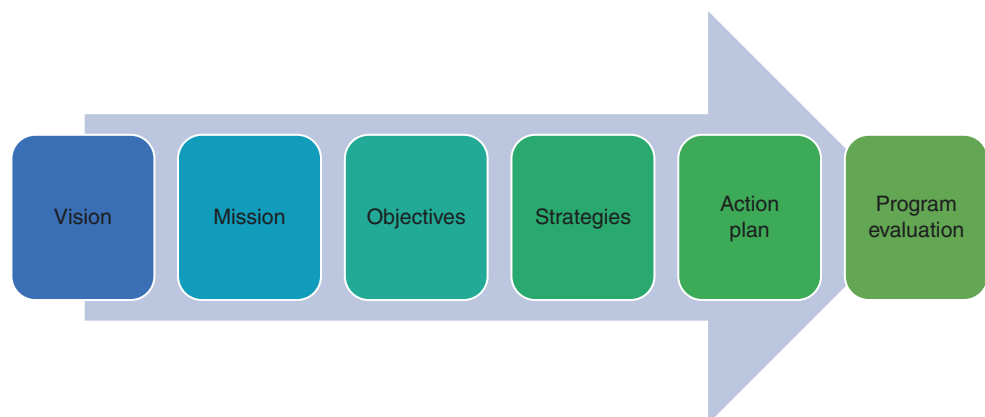
should be inspiring, original, realistic and describe the "what" and "why" for the program. It should be understood and easily shared among the stakeholders and broad enough to include a diverse variety of perspectives [7].

Mission

On the other hand, a mission statement is more specific than your vision statement. It outlines the purpose of your organization, its values, and what sets you apart from others. A mission statement answers the questions "Who are we and what do we do?" A good mission statement should inspire people to take action. After hearing your vision/mission statements your stakeholders should be able to understand what your program wants to do and how you plan to do to reach those goals. Good vision/mission statements will guide your work today and in the future. Vision talks about who you want to be, what inspires and motivates you and talks about the future. The mission statement talks about how you will get where you want to be, should inspire action and talk about the present.

Developing a Vision/Mission

The first step is to identify the vision and or mission statements of the larger institution in which you are imbedded. Most if not all medical, nursing, or health professional schools, academic medical centers, and hospitals worldwide have vision/mission statements. The traditional themes include leadership in education, advancement of knowledge and service to society. More recently one finds evolving themes of prevention, diversity, primary care, distribution of care to underserved areas and cost control [8]. Some institutions have also created social mission statements which outline their efforts to address the health disparities of the society in which they exist [9, 10]. Keeping your parent institution vision/mission statement in mind, start with asking these 3 questions:

1. Who are you serving? Students, faculty, administration, patients, families, societies?
2. What aspects will you be addressing? Teaching/assessment, research, patient safety goals?
3. What can your standardized patient program do to meet the needs of your stakeholders?

To start the process, you can engage stakeholders (administration, faculty, SPs, staff, learners, grantors etc.) in conversations, asking them:

1. How will an SP program help them reach their goals?
2. If you currently have a program, is there anything they would like to see changed?
3. What should be the top priorities?
4. What barriers and opportunities do they see?
5. What would success look like?

You may find it helpful to look at existing SP programs' vision and mission statements. Look for programs that are about the same size and serve similar learner populations, such as hospital-based programs, community college, medical and or nursing schools, etc. Table 10.1 provides sample mission/vision statements.

Once they are written and approved, you need to decide how and where to share them. Options could include:

1. On stationary/letterhead
2. On your website
3. Posted in your facility for the public, faculty, staff, learners, and SPs to see
4. As part of your email signature
5. Display on reports

Your vision and mission statements will guide everything that follows. Once you have developed your vision and mission, the next step is to create or review objectives.

Objectives

Objectives are specific, measurable steps to help you achieve your mission. Objectives keep you focused on your mission and set benchmarks for achievement that can be visible to your stakeholders. Ideally objectives should be SMART (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**imeline) as seen in Fig. 10.2.

"M" in SMART is very important. You will need to gather baseline information so you can measure the impact of your program. For example, if one of your objectives is to help pre-clinical medical students prepare to perform physical exams prior to clerkship, it would be helpful to understand

Table 10.1 Sample mission statements

Approach	Description	Pros	Cons
Outcomes oriented	Define learning objectives/instructional goals at the start of the activity and then evaluate whether or not they have been met at the end of the activity	Uncomplicated design which allows straightforward interpretation	If objectives are not carefully chosen, evaluations can be trivial or impossible.
Process oriented	Evaluates the entire process from planning to implementation to completion	Provides comprehensive approach which provides information at every step	Resource intensive and complex
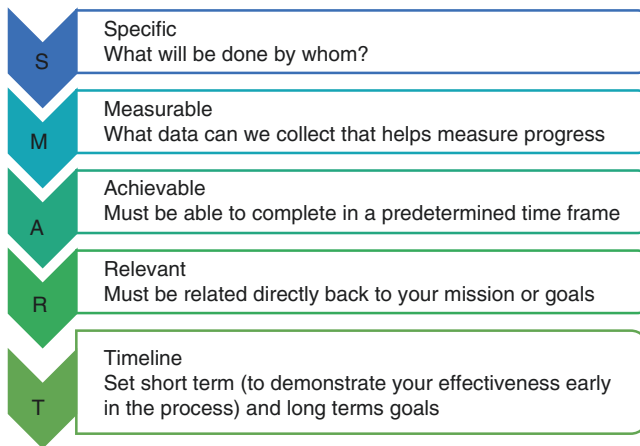
Fig. 10.2 SMART framework

Fig. 10.3 Internal and external perspectives

how prepared they are prior to your program and then measure change after your program. Another example would be a patient complaint that shows a need to train on a patient centered approach to giving bad news. Once the training is done you can track patient complaints to see if there is a difference. After you have your objectives, the next step is to develop strategies.

Strategies

Strategies explain how you are going to accomplish your objectives. While strategies are less detailed than action plans, you still need to consider the resources available to you and the barriers that may get in the way. You should always keep the vision/mission in mind and make sure the strategies link back to the objectives.

Tips for developing effective strategies

1. Give overall direction without being specific to allow for other options to come forward
2. Take advantage of current strengths and resources

3. Recognize where resistance will come from and create a strategy that will counteract that opposition
4. Base strategies on the needs of the stakeholders
5. Improve the status quo

Steps for developing effective strategies

To help organizing your list, you can do a SWOT and/or PEST analysis. A SWOT analysis helps you identify the **S**trengths and **W**eakness in your program and the **O**pportunities and **T**hreats from outside your program. A PEST analysis is another approach that can be done before the SWOT to identify external **P**olitical, **E**conomic, **S**ocial and **T**echnological factors. You can also analyze any legal or environmental factors that may come into play. You can use the PEST analysis to inform your SWOT- opportunities and threat.

Once you have done a SWOT/PEST analysis, you want to plan to reinforce and leverage your strengths and opportunities. Using those, you strategize to address weaknesses and threats. Plan a brainstorming session with those who can help you implement the strategies successfully and those whom the strategies are designed to help. The last step is to link strategies to specific objectives. Then, you will develop an **action plan** to bring your strategies to life.

Develop list of questions that will guide your discussion from both Internal and External perspectives (Fig. 10.3).

1. What are our strengths?
2. What resources can we tap into?
3. What are the barriers from within the program?
4. What resistance we will face from outside the program?

Action Plan

Unlike strategies which are broad, an action plan is specific. Each element includes what the action/change is, who will carry out these changes, when the deadline is, what resources are needed, and who needs to know? You can follow a series of steps to identify:

1. Action step: What will happen?
2. Responsible person/process owner: Who will do what?
3. Timeline: What is the timing for each step?
4. Resources: What is required, what do we have, and what do we need to get?
5. Support: Who will be an advocate of the process?
6. Resistance: Who/what will be a barrier and what is our strategy to overcome?
7. Collaborators: Who outside of your program/organization should know about the action plan?

Once your action plan is done, ask yourself is it complete. Does it contain all the steps needed? Is it clear? Does it antici-

Table 10.2 Evaluation process

Approach	Example of models

Outcome
Identify program outcome(s) you are interested in measuring and providing to the stakeholders.
	Kirkpatrick's 4 broad classes of programmatic outcomes [13]
	1. Reaction – Participant satisfaction (debriefing, focus groups, survey)
	2. Learning – Change in knowledge, skills and behaviors
	  (a) Knowledge – Self -assessment, MCQ, etc.
	  (b) Skills – Clinical skills/procedure assessment in simulated setting
	  (c) Behaviors – Case studies, simulation
	3. Behaviors – Transfer of learning to job
	  (a) Learner assessment by faculty
	  (b) Self-assessment
	4. Result – Improve health of patients and society
	  (a) Patient satisfaction scores
	  (b) Complication rates
	  (c) Quality reports

Table 10.3 Match evaluation methods

Approach	Example of models
Process Can focus on any level (the entire program, one component)	**Logic model** [14] Looks at the relationship among: 1. Input (resources: space, staff, expertise etc.) 2. Activities (how resources are used) 3. Outputs (deliverables from those activities; who will be impacted) 4. Outcomes (changes that occur) 5. Impacts- (long term outcomes) 6. Elements outside of your control that help or hinder

pate changes? Next, move on to is program evaluation. Unless you include program evaluation in your process, you will never be able to report on successes and areas for improvement.

Program Evaluation

In order to keep track of your successes and challenges, create a well thought out evaluation process. Program evaluation is a data driven process to look at the overall value and effectiveness of a program (Table 10.2). In addition to an ongoing quality improvement process, evaluation results can be leveraged to maintain or secure additional resources, satisfy external requirements like accreditation, and to aid in presentations and publications [11]. Cook provides a step by step process to determine the "merit or worth" of your program [12].

1. Identify your stakeholders.
2. Identify what information would be meaningful to you and the stakeholders.
3. Understand the difference between learner assessment and program evaluation.

4. Consult the literature, colleagues and stakeholders in planning the evaluation process.
5. Match approach to goal of program evaluation.
6. A Match evaluation method to the approach is seen in Table 10.3
7. Be sure that the chosen process
  (a) Matches the goals and objectives of program/ activity.
  (b) Measures outcomes that are easy to gather and important.
  (c) Has a large enough sample size.
  (d) Has the ability to link activity to change in spite of other confounding factors.
8. Plan ahead and be realistic. Make choices up front that will help you retain the highest quality and most meaningful data.

Another method of gathering immediate feedback from participants, faculty/staff, and SPs is to do a Plus/Delta after each event. Participants are asked to list what went well and why and what needs to change for the next iteration. Regardless of evaluation type, method, or approach, following these best practices should ensure the evaluation:

1. Serves the needs of the internal and external stakeholders (learners, curriculum committees, program directors, chairs, accreditation groups)
2. Is realistic, respectful and stays within allowable budget
3. Will be conducted legally, ethically, and with regard for those involved in the evaluation. The evaluation process should include the concept of psychological safety that is employed in simulation process which is essential to obtain high quality and honest responses [15].
4. Provides information to accurately determine the true value of the program (return on investment) to accurately communicate with administrators [16].

Report Results

The final step in program evaluation is dissemination of the results the appropriate stakeholders [17]. Issues to consider include:

1. Timeliness: evaluation findings need to be distributed in time for changes to be made and resources to be allocated.
2. Format: based on audience, the report may need to be detailed or simply summarized. The report should be clear, to the point, and easy to understand. Consider using graphs and figures to express complex concepts clearly.
3. Executive summary: may be helpful to frame and explicate the full report.

Your vision and mission are clear. You have identified your goals and objectives. You have a process in place to develop strategies, you have an action plan, and you know how you will evaluate the program's effectiveness. Let's drop down to the everyday work of the SPE.

Developing SP Expertise

Hiring, Onboarding, Selecting, and Maintaining Diverse and Well-Trained SPs

Developing processes and strategies to identify, screen, interview, select, and orient people to the work of SPs were identified by the overwhelming majority of SPEs as essential general preparation steps to ensure a high-quality SP program [18].

Hiring

Outreach to the Community
Most of the SPs hired come from the community. Sometimes a program will hire a group to provide a specific learning activity, like Gynecology Teaching Assistants (GTAs) or Male Urogenital Teaching Assistants (MUTA). How do you identify people with the right skills that will be interested in the work? Programs have taken different approaches partly based on their geographic location. Here is list of possible options

1. Traditional job listings–website, newspaper, online etc.
2. Reaching out to community/school-based theater programs
3. Reaching out to graduate programs or other student group on campus
4. Posting flyers in the community
5. Speaking with friends and family
6. Word of mouth from other SPs
7. Running a feature article online or in print speaking to the benefits of being an SP (to both the individual and to the community)
8. Presentations to different community groups, social groups, or church groups

Regardless of the way you reach out, develop materials that are easily read and clearly communicate what an SP is and what they do. Have an ample supply of business cards with clear contact information–email, phone number, web site.

First Contact

Online or on Phone or by Mail
Many SPEs believe training starts at the first contact with an applicant. Several strategies provide opportunities to screen SPs for suitability from the moment they connect with your program. This intake process can include a combination of a written application, conversations via email, or a brief phone interview. This first contact offers you a chance to articulate your expectations in writing right from the start of your relationship with the SP. Clarify scope of work and define responsibilities of an SP (role portrayal, feedback, completing checklists/documentation). Putting things in writing helps to make things clear for everyone and prevents future misunderstandings. Pritchard and colleagues note that it is "important during recruitment and training activities to be transparent about role portrayal expectations" [18]. By creating and disseminating concrete materials, you are making expectations explicit for everyone, including yourself. This process is iterative: be prepared to keep revising this document in response to evolving needs, questions, and feedback from your SPs and other stakeholders. By taking the time to think this stage of preparation through, and establishing these expectations with your SPs, you are helping to create a psychologically safe work environment (See Chap. 4) and ensuring that your SPs will be role-ready for the simulation. This documentation does not have to be onerous – start with a page of key expectations from your SPs and/or what you want them to know.

Second Contact

The Face-To-Face (F2F) Interview
When interviewing SPs, you're looking for multiple skills and qualities. While most SPs may have many of the desired skills, each will have specific strengths and qualities which will influence your selection for various activities. You are also looking to fill gaps in your program. You might decide to hire several SPs with the same strengths and qualities to fill this gap. Interviews also prevent an inappropriate applicant from being hired. It provides an opportunity for you and the applicant to exchange information on the work required, clear up any misunderstandings and assure to job satisfaction. The face-to-face meeting provides an opportunity to accomplish two goals.

1. To provide the applicant with logistical and practical details of SP work and your SP program. Consider providing the following
   - Nature of the employment relationship: Are they considered employees or contract workers? Are they any benefits included? Sick time? Workers Compensation? Will taxes be withheld? It is important to make sure that this relationship is vetted by your Human Resources department.
   - Form and amount of compensation: Are they considered volunteers? Are they compensated with gift cards or cer-

tificates? If paid, what is hourly rate for what activity? Are there time sheets to fill out? How often are they paid?

- Work Commitment: How will they hear about work opportunities? How will you communicate with them? How should they communicate with you? How do they accept or decline work? Are they guaranteed a certain about of work weekly, monthly or yearly?

2. To assess the individual's compatibility for the job. This face-to-face interview can be individual or in small groups. During this interview, you will gather information about what is said and how the SP behaves.
    - How do these potential SPs actively listen and express themselves?
    - How actively observant are they?
    - What kinds of questions do they ask?
    - Are they punctual?
    - Are they detailed oriented?
    - What strengths do they have that will make them a good SP to have on the team?
    - Do they have attitudes, tendencies or characteristics that will require longer training or preclude them from performing the designated role?
    - How do they deal with the logistics being presented, handle case materials and training tools (if supplied)?

Developing an interview guide and scoring rubric when meeting with SP applicants is helpful. A standardized interview guide and rubric contributes to a time effective interview and maintains quality in the hiring process. This documentation may be helpful if any legal questions arise about your hiring process. Here are some elements/questions you may want to include in your interview guide:

Motivation
What interests you in this type of work?

Scope of work and defining responsibilities of an SP (i.e. general questions to assess an applicant's understanding of role portrayal, memory, physical examination and learners)
- *What do you know about what being an SP involves?*
- *Sometimes sessions can last for full day, do you think you can do that?*
- *How do you describe your ability to concentrate?*
- *Would you consider yourself detail oriented?*
- *How do you feel about being physically examined?*
- *Are there any types of physical examinations that you would like to avoid?*
- *Is there anything we should know that might affect your ability to portray a role with physical signs and symptoms?*
- *How do you feel about working with different types of learners? (i.e. nursing students, social workers, residents)*

These types of questions allow you to understand more about an applicant's versatility. If you are recruiting for a role involving a chest examination where you need someone with no scars or heart issues it is much better for you to know if an SP is physically able to do this rather than discovering well into training. This does not mean that there is not a place for this SP in your program. They just can't do this specific role. Likewise, it is important for you know how they self-assess their attention to detail, concentration and stamina so you can select them in the right scenario. From a safety perspective, it is important to allow the SP to self-select out of roles that they are not comfortable portraying. More specific questions to clarify an SP's responsibilities and scope of work for role portrayal, feedback, completing checklists, and working with others may include:

Role portrayal
- *Do you have any experience with role portrayal or role playing?*
- *Do you have experience as an actor, if so, what kind of techniques do you use?*
- *Do you have any experiences with improvisation?*
- *What did you find easiest? Most challenging?*
- *How comfortable are you expressing emotions?*
- *Are there any emotions that you are not comfortable portraying?*
- *Do you have any concerns in portraying highly emotional cases?*
- *What type of cases would you like to avoid?*
- *Are you able to memorize lines?*

Asking these types of questions will help you to understand more about the expressive range and comfort of the person that you are interviewing. Also, as above, from a safety perspective, it is important to allow the SP to self-select out of roles that they are not comfortable portraying.

Feedback (giving and receiving)
Giving Feedback
- *What experiences have you had in giving feedback?*
- *Give me an example of a time when you had to give positive feedback. Tell us about a time when you had to give constructive feedback OR when someone did something incorrectly or improperly, how did you tell them to change?*
- *Are you self-reflective? Please give me an example.*

Providing feedback is a skill and must be framed respectfully. These types of questions allow you to see how the applicant perceives feedback. Does the applicant understand the skill, sensitivity and value of feedback and how difficult it is to give feedback? In their example did they sound respectful, thoughtful, and supportive when giving feedback? Was their feedback interactive? Did

they engage the person receiving feedback or just talking *at* them? Was the feedback directed at the behaviors or the person? Listen for specific words and observe behaviors that reflect constructive feedback techniques. Asking the applicant if they are "self-reflective" will give you an idea how aware they are of their own feelings.

Receiving feedback/taking direction
- *How open are you to receiving feedback?*
- *How flexible are you?*
- *Have you been on the receiving end of poorly crafted feedback? If so, how was that experience…. if not, how would you identify poorly crafted feedback?*
- *Can you give me an example where you were given quick directions and had to immediately apply those directions?*

You will be giving feedback to SPs regularly throughout their time with you. As they answer the above questions, you can assess how approachable they are to receiving feedback (are they defensive or appreciative), their attitude to feedback (as growth or as being judged), do they listen and are they approachable? Can they immediately take direction, change behavior and sustain that change over time?

Recall and documentation (completing assessment forms):
- *When have you had to recall and immediately document anything?*
- *How comfortable will you be assessing learners and contributing to their grades?*
- *How would you rate your memory?*
- *Do you foresee any problems repetitively completing an assessment form?*

Applicants must understand the value and responsibility completing assessments have on learners' grades. They must be objective in their scoring and documentation and be comfortable in this role as assessor. Having a good memory to document immediate action items is a quality you are looking for to maintain accuracy in the assessment. You are also looking for the ability to be able to complete tools repetitively. Again, if the applicant is not able to complete assessment forms, this does not mean that there is not a place for this SP in your program.

Working with others
- *How well do you collaborate?*
- *Do you have any experience in teaching or taking on a leadership role?*

SPs are part of your educational team. They are working with a group of people to achieve a shared goal – education of the learner. This team includes SPEs, learners, faculty, administrators and other SPs. Listening to other members of the team and working collaboratively will result in effective and timely training and the successful administrative of an activity. An applicant who takes over the interview with their own agenda may not be suitable for the role of SP. Experience in teaching or in a leadership role can be used for recruiting in various roles with specific responsibilities.

Role-Play Exercise
Using a role-play exercise during this interview process can give you a lot of information quickly. There are several ways to approach it:

1. Individual spontaneous role-play: In this case the SP applicant does not receive the case ahead of time. You are able to assess the applicant's ability to put themselves into character and stay in character, their flexibility in answering questions and adapting information, and their overall comfort with the process.
2. Prepared role-play: Send the SP applicant a simple case prior to the interview and ask them to review it before they come in for the interview. This allows you to assess if they studied the case and came prepared for the interview. This may be a good choice if you are hiring only one SP as opposed to a group.

Regardless of which approach you take, you can incorporate a mock SP group training session prior to role playing with individuals. This will enable you to see how individual applicants behave in a group setting. Then you can role play with each applicant individually to gage their comfort with role portrayal and learning case details. You portray the role of the learner, asking questions about the case that was provided. You can assess several things during this role play. Can they answer questions that are not on the case? Are they comfortable improvising from the character's perspective? Finally, you may choose to role play feedback session following role portrayal. It is never too early to discuss and demonstrate the type of feedback that you will be using at your program. Introduce the feedback structure, memory and observation skills required, study time and relevance to the curriculum so the applicant to decide if this is what they expected in their responsibilities as an SP (See Chap. 4 for more information on feedback).

Third Contact

Orientation/Onboarding
Once the applicant is hired/selected as an SP, they must be oriented/onboarded. Many SPEs conduct an orientation/general training that all SPs are required to attend. In the long run

these sessions are cost and time effective. This informational training may be a few hours up to a few weeks to orient the SPs, depending on the material to be covered. It guarantees that all newly hired SPs hear the same information at the same time which prevents misunderstanding and redundancy. General performance questions can be covered at the beginning of the SPs career. Of course, if just one SP is hired, orientation is done individually. Consider providing this information in several different formats to address different learning styles. Some this material could be listed on your website as well. Here are some topics you may include in your orientation/onboarding process for new SPs based on your program.

As you read through the topics, consider what to include:

1. At the first orientation
2. In a part 2 or follow-up session
3. At their own dedicated session
4. At each activity specific training
5. Once a year

SP Program
- Outline of the Vision and Mission of your Program
- Administrative Structure of your Program
- Policies and Procedures
- Expectations you have of them
- Expectations they can have of you
- Etiquette

SP methodology in your Institution
- Type of Learners
- Teaching/Learning Domains
  - Professionalism
  - Interpersonal
  - Interprofessional
  - Basic and advanced communication
  - Physical exam/physical assessment
  - Clinical/diagnostic reasoning
  - Other
- Leaner assessment
  - Formative
  - Summative

SP Methodology and Terminology
- Timeline of SP methodology
- Human Simulation Continuum (See Chap. 5): review different approaches- role-player, structured role player, embedded participant, simulated patient, standardized patient and standardized patient for high stakes certification or licensure assessments as needed
- Terminology
  - Standardized
  - Simulated

- Type of learners and continuum of healthcare professional education
- Other roles for SPs
  - Hybrid
  - Mixed modality
  - Outside of healthcare

Review of the SP job responsibilities
- Overview of the SP experience–consider simulating an SP teaching or assessment activity
- Outline what the SPs can expect and what is required during an event.
- Provide a facility tour including an exam room, showing where the SP sits and where the learner enters, how to listen for announcements and how to use the computer and completing the online checklist.
- Processes in place for SP safety (See Chap. 4)
- Review of any SP principles specific to your institution, such as:
  - Are learners expected to perform the physical examination directly on skin, not over the gown, with appropriate draping techniques?
  - Should the SP sit in the chair at the start of the interaction unless the case specified otherwise?
  - What are the rules of case confidentiality?
  - What are the rules of learner confidentiality?
- Review any *general* SP principles such as:
  - The SP remains in role through the whole interaction (even when a time-out is called by the learner or facilitator) UNLESS they feel emotionally, psychologically or physically unsafe.
  - What to do if they feel unsafe?

The SP never use the phrase "It's not in my script." How to identify and respond to different types of questions (e.g. open-ended, direct, leading and multiple questions). The parameters for how an SP may respond according to the case/learning objectives of the activity.

Orientation to the Case Materials
- Program Specific Case template orientation so SPs learn how to effectively and efficiently understand how to read and interpret a case.
- Portrayal:
  - Orientation to scales for affects that are regularly portrayed. Developing standard scales for affects that are regularly portrayed contribute to easy calibration and is a time-saving strategy for the SPE.
  - Discuss various aspects of body language (nonverbal communication) and the impact body language has on the presentation.
- Feedback:
  - The type of feedback expected, how the feedback is structured, how feedback may be modified for different level of learners, feedback training

Checklist/scales

- Communication skills training: how the learners are trained, and SPs will assess them (e.g. Master Interview Rating Scale, Jefferson Empathy scale)

Formative

Summative

Impact of SPs bias on their assessment of learners:

In a multi-institutional study examining the effects of ethnicity and gender on SP scoring of medical students on empathy, Berg et al. demonstrated a significant interaction effect of ethnicity and gender on scores. Overall female students regardless of ethnicity, scored higher than male students. Black/African American male students scored lower regardless of SP ethnicity. While more research is needed, these findings suggest SPs gender/ethnicity bias play a role in scores [19]. SPE can offer ongoing training to address these issues.

- Define privilege, bias and prejudices
- Discuss how privilege, bias and prejudices can favorably and unfavorably affect SPs' feedback/assessment of a learner

Provide workshops to help SPs deepen their understanding of these issues. Your institution's Office of Diversity and Inclusion (ODI) can be a great resource. If you do not have an ODI, reach out to other SP programs.

Recruitment and Retention of Diverse SPs

More and more we are being called to develop simulations to help our learners address the complex causes of healthcare disparities [20–22]. In many ways tackling this issue is no different than other societal challenges to which SP methodology has been applied: intimate partner violence, sexual assault, death and dying, drug/alcohol use and addiction, and mental health. The main difference here is that while we may not have had first-hand experience with the above issues, we all live in a world where privilege, bias, prejudices and social structures–economic, political, legal, religious, racial and cultural–prevent some individuals, groups and societies from accessing resources needed to get and stay and well. How do we prepare ourselves, our SPs and the community of practice to address the causes of healthcare disparities with SP methodology? First, we need to understand terminology and basic concepts.

To begin we need to understand the difference between *cultural competency* and *cultural humility*. Cultural competency is when the learner gains the knowledge, skills and behaviors to meet the language, cultural, spiritual and health needs of specific populations. Cultural humility is a lifelong commitment to explore, discover and reflect on our own limitations, to identify gaps in our knowledge, skills and behav-

iors and be open to new ideas and approaches. Yeager et al. focused on eight attributes to compare the difference between cultural competence and cultural humility [23]. Cultural humility expands the concept of competence into one in which we engage in active work to address power imbalances and toward developing meaningful partnerships with groups that advocate for others [24]. For comparison of competence and humility, see Table 10.4. The next step is to understand the concept of privilege, social location, intersectionality and structural humility [25–29].

Privilege is a set of benefits given to certain groups of people by the society in which they live or by society at large because of certain aspects of their identity (i.e. race, sexual orientation, religion, or ability). Having or not having privilege is not a personal choice. We did not ask for or earn privilege. Rather, it is conferred on us based on our different identities by society. Some aspects of our identities allow us privilege and some result in us being disadvantaged/oppressed. Social location is the relative amount of privilege and oppression that we have based on specific identities. For example, I am a white (privileged), 67-year-old (disadvantaged/oppressed), cis (privileged) woman (disadvantaged/oppressed), with a middle-upper income (privilege) with higher education degree (privilege). Intersectionality describes this overlap of these different identities as seen in Fig. 10.4.

My life experience is based on the interaction of my many identities, rather than being dependent on just one. While I am privileged in some areas, this does not cancel

Table 10.4 Cultural competence vs cultural humility

Cultural competence vs cultural humility		
Attributes	Cultural competence	Cultural humility
View of culture	Group traits Group labels Fixed regardless of context	Individual traits Multiple contributions from different sources Fluid and changes based on context
Definition of culture	Ethnic and racial minorities	Intersection of many different identities: race, age, income, educations, class, abilities, sexual orientation, gender identity and more
Traditions	Relegated to immigrants and minorities	We all have traditions
Context	Majority is the normal Others are different	There are differences among those with privilege and without which needs to be recognized and addressed
Result	Stereotyping	Respect
Focus	Focus on other	Focus on self as well as other
Process	Cultural competency course or session without examination of privilege	Life long process and self-reflection to examine effect of one's own privilege and implicit bias
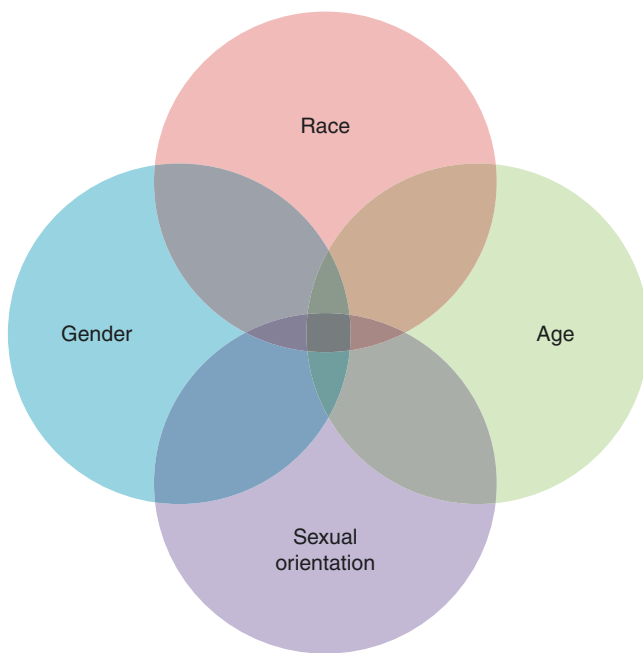
Fig. 10.4 Intersecting identities

Fig. 10.5 Structural humility

out the areas in which I am disadvantaged, or vice versa. The overlap of these different identities impacts our experience of health and illness.

Once we have an understanding of these concepts, we need to consider how to address these issues for ourselves and our SPs. Looking at privilege can be difficult. Privilege is invisible and can feel normal, yet it can blind us from seeing systemic issues in our society that do not directly affect us. Acknowledging our privilege can feel as if we did not earn what we have. We can feel uncomfortable which can lead to feeling guilty or defensive. One important aspect of privilege is that we cannot relinquish it, yet we can share with those who have none or very little in our society. Understanding privilege and how it impacts on our learners and our SPs is a first step of recognizing how it impacts on our day to day work.

One of the ways privilege is created and endures is through biases [30–33]. Implicit biases are stereotypes that we all create automatically and unconsciously store. Implicit bias is so ingrained in each of us and in society that our responses are automatic and feel natural. Oftentimes these biases run in direct contradiction to our conscious values, which makes them difficult to recognize or address. Certain situations can activate these attitudes and beliefs. In healthcare, activation of these biases can negatively affect clinical reasoning, diagnostic ability, and communication/interpersonal skills leading to poor patient outcomes and patient safety issues. Health disparities exist in access to care, quality of care, timeliness and outcomes. We also know that provider bias, poor provider-patient communication, and health
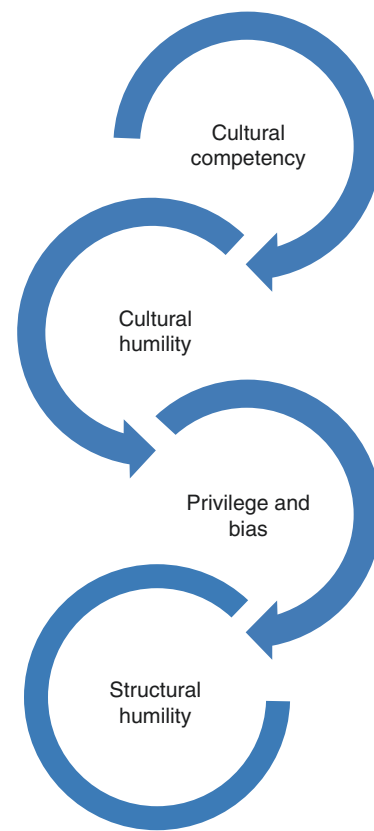
literacy issues are key indicators affecting health outcomes, particularly in historically unserved and underserved communities. In order to consider how to develop educational interventions to address health care disparities an understanding structural humility is key.

Metzl et al. (2014) introduced the concept of *structural humility* (Fig. 10.5) to help healthcare learners and professionals to recognize when a patient's health risk (i.e. obesity, smoking) or symptom/complaint (depression, hypertension) is not related to personal choice but is the direct result of belonging to a non-privileged group within social, political or economic systems. Structural humility invites us to ask how decisions about healthcare delivery systems, housing and infrastructure, education and job training and the legal system impact individual patient's health and illness. Is difficult for a patient to manage their diabetes because they face food insecurity, or they cannot afford their insulin? Are they not coming to follow up because do not have access to affordable or reliable transportation? Do people avoid seeking care until they are in a crisis situation because previous healthcare experiences have left them feel humiliated or judged due to implicit bias? Does the scarcity of healthcare providers that look like them or an awareness of historical cultural trauma prevent them from seeking care? [34]
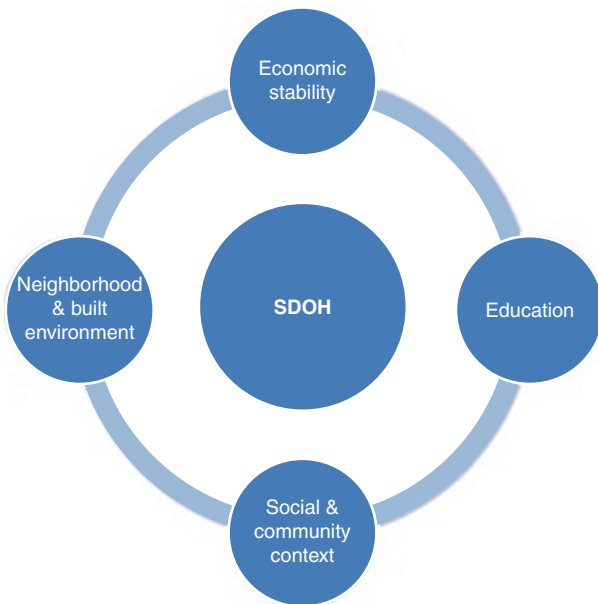
Fig. 10.6 SDOH framework

One of the most effective ways to understand these connections is through the Social Determinants of Health (SDOH) framework (Fig. 10.6) [35]. This framework identifies five key areas:

1. Economic stability
2. Education
3. Social and community context
4. Health and healthcare
5. Neighborhood and built environment

Exposure to discrimination and oppression, for example, fall under the social and community context social determinant and can help us understand how person's place and position in society will determine their health outcomes and overall wellbeing.

Different educational strategies have been used to help healthcare learners become aware of and understand their implicit bias and develop ways to offset its impact [36–38]. Most strategies involve having learners work with groups where implicit bias plays a role. Working in community-based or global-health contexts coupled with reflection and feedback can be of value although they may not be most effective. Simulated encounters followed by feedback and debriefing where the healthcare learner/professional/team can engage face-to-face with patients/families from culturally diverse backgrounds in a safe and supported environment can be a more effective approach. We can control the patient characteristics that trigger unconscious bias in the creation of the SP encounter. Most of the simulated encounters are focused on cross cultural skills or elements of cultural competency [39–45]. The next innovation would be to

mainstream non-normative presentations of love, gender, race, religion and health concerns into all SP case development. As SPEs, we can make a commitment to do our best to have a linguistically and culturally diverse mix of SPs and begin to incorporate these identities into our case materials.

While we know that recruiting and retaining minority standardized patients is difficult and the makeup of most SP pools does not reflect the culturally and linguistically diversity in the general population, new research is providing some solutions. Based on Livesay's qualitative research on the perceptions of minority people on becoming an SP, the following barriers were identified [46].

1. Lack of understanding of what an SP is and does
2. Personal health experiences that left them feeling alienated and misunderstood
3. Worry about vulnerability
4. Feeling like "other"
5. Playing stereotypes

They also identified the benefits of working as an SP

1. Addressing stereotypes by sharing their culture and being heard
2. Assist in changing attitudes over time
3. As a way to address health care disparities in their community

In this section, we present strategies to help SPEs prepare for, recruit/retain, and design/train cases, with an emphasis on diversity and inclusion.

Strategies

SP Educator preparation

1. Research and develop strategies to become aware of privilege. Several web sites provide ice breakers, sample activities and templates. https://sites.lsa.umich.edu/inclusive-teaching/2017/08/16/icebreaker-grab-bag/ https://ccdi.ca/toolkits/
2. Explore and create strategies to address unconscious bias in yourself and your SPs. Use of the Implicit Association Test (IAT), a validated tool may be helpful [47–49]. The IAT measures the relative strength of associations between a pair of concepts used to explore the impact of unconscious bias on behavior. You can go to this website for more information https://www.projectimplicit.net/
3. Minority SPs may experience bias from the learners. Create strategies to counteract bias than can affect SPs during student encounters, Contact and partner with your institution's Office of Diversity and Inclusion.

4. Understand intersectionality which takes into account the multidimensional and complex lives of our patients [25–29].
5. Partner and meaningfully engage with culturally and linguistically diverse communities to understand:
    (a) Cultural concepts and traditions of wellness, disease and healing
    (b) Relationship of culture to healthcare professionals and systems
    (c) Impact of historical and contemporary trauma on health
    (d) The structural components that impact the health and illness of their community

    One important aspect of this partnership is to ensure we work "with" communities and not "in" communities. It is important to understand historical injustices that groups have experienced within communities and with our institutions and we must recognize this historical trauma and how it will affect program outcomes. Culturally and linguistically diverse members should also receive equitable compensation for their work as this is an area of expertise we do not have. We need to value their time and knowledge and ensure they are integral partners in these processes [50].

Recruitment [51–53]

1. Partner with organizations involved with improving the health of the community and reducing disparities. These community leaders can help you overcome mistrust, misunderstanding or avoidance of working with the healthcare systems.
2. Reach out to and recruit patients from community health centers in economically disadvantaged and medical underserved neighborhoods to become SPs. In several programs, SPs recruited have chronic conditions e.g. cardiovascular, cardiopulmonary, diabetes, obesity etc. The cases were constructed around the SPs actual health conditions. Screening, hiring and training conformed to standard job requirements.
3. Advertise in targeted email lists, local language newspapers, flyers within the community (health centers, daycares, etc.) and theater groups from the respective communities.
4. Hold an open house and invite community leaders and anyone interested in learning more about the program. Highlight the way participation in the program can benefit their community.
5. Identify local and state advisory groups that work on topics related to health equity and addressing health disparities and discuss program outcomes and how they would benefit the communities served.
6. Get buy in from community leaders, elders, and local/state organizations that work with unserved and underserved communities.

7. Discuss/understand how becoming an SP could improve conditions for their community
8. Discuss/understand how becoming an SP could result in:
    (a) Finding a voice that they may not feel in real life
    (b) Moving beyond being "other"
    (c) Moving beyond the stereotype

Case Preparations

1. Create cases that address real life issues facing their family or community
2. Create scenarios reflect the multiple intersecting identities of the patient rather than present a single characteristic or identity to reduce stereotype.
3. Consider the:
    (a) Social or structural causes of health disparities as opposed to individual patient characteristics and behavior
    (b) Individual and collective aspects of health.
    (c) The role bias may play for this patient.
4. Consider a trauma-informed approach in light of historical and current trauma experienced by minority groups within the healthcare setting.
5. Engage minority SPs in case development to avoid stereotypes and minimize generalizations.
    (a) Pool experiences of minority SPs to avoid re-traumatization.
    (b) Ask for minority SPs input on dress, hair style, jewelry etc. Reduces risk of stereotyping.

Training

1. Use a range of learning styles in training- include demonstrations, video review, role playing and ongoing feedback
2. Help the SP understand the case from a healthcare perspective
3. Provide techniques that offset bias and prejudice within the simulation
4. Set time aside to debrief and de-roll the SPs to address effects of bias/prejudice they experienced.
5. Prepare SPs with what to do if they experience negative effects after the session
6. Frequent face to face meetings

Retention

1. Ensure everyone involved in these programs receives ongoing professional developmental opportunities related to health equity, disparities, and historical trauma.
2. Exhibit sensitivity and respect to cultural and class differences

3. Design cases that improve intercultural and cross communication skills
4. Ensure participation in "non-cultural" cases
5. Using the SDOH framework, create cases that attend to contemporary minority concerns (i.e. cultural obstacles to good health such as diet and lifestyle)
6. Communicate frequently and provide feedback on their performance
7. Ensure appreciation and respect are shown by staff, faculty and students
8. Provide opportunities to provide feedback to the program
9. Provide food, water and parking especially during long sessions
10. Be clear on compensation amount and timeline

We can design cases to help our learners develop lifelong habit of cultural and structural humility. But what if the student/professional or one of their colleagues is the target of the bias? Fnais et al. reported that 21.9% of medical trainees experience bias related to gender, ethnicity and culture [54]. Whether it occurs among students or other professionals or comes from the patient/family, the impact on the student/professional can be profound on the individual resulting in burnout and eventually leading to poor patient care. Eisenberg and Kieffer developed a "Responding to Bias" workshop for first year internal medicine residents [55]. The session was designed to help residents learn skills to directly and effectively address bias, support their colleagues and assure the patient received appropriate care. The resident learned strategies to address bias based on the work of Whitgob et al. [56]. Residents then practiced with one on one SP encounters with patients displaying gender bias, racial bias and class bias. Residents report increased confidence after the workshop.

As healthcare providers have a similar degree of bias as the general population [57, 58], **we can play a major role in helping learners and faculty address these issues by including** culturally and linguistically diverse SPs in our program and by ensuring content related to health equity and addressing health disparities in embedded in every aspect of medical and health and allied education training.

Whether the case is focusing on cultural competency or a minority SPs portrays a patient with knee pain or other generic chief complaint, simulation activities provide a safe and supportive learning environment where learners can practice new skills before interacting with clinical patients. Be vigilant in questioning the status quo and personally engage in ongoing self-assessment and learning. Understanding cultural and structural humility is a developmental ongoing process that we all have the responsibility to actively engage in and role model for others. Is there any reason the patient presenting in the emergency department with a migraine can't be a transgender individual? Whether you can do a lot or a little, you can contribute the development of cultural and structural humility in

our learners, faculty and staff to the benefit of patients and families. In the next section, we will take you step by step from outreach to first contact to professional development for SPs.

You have successfully hired diverse and talented SPs. Chapters that will provide you with guidance on the next steps are.

- Chapter 5: The Human Simulation Continuum: Selecting the appropriate Human Simulation
- Chapter 6: Development of Scenario and Training materials
- Chapter 7: Realistic Role Portrayals (Scenario Training)
- Chapter 8: Ten Step Training Framework

Policy and Procedures

A Story (True Situation- Fictional Names)

Monday morning 10:20 am, a little over an hour into an end of 3rd year Clinical Skills Assessment. Sitting at my desk, sipping my just refilled second cup of coffee of the day; I hear my name yelled from the center hallway where other learners are standing at monitors. "Diane, someone get Diane!" Lawrence, one of the SPs, is standing barefoot wearing his blue checkered hospital gown and briefs looking frantic.

Back up 10 minutes; a male student sitting on a green, rolling stool in exam room 5 is interviewing "Mr. Turner"; about his increased thirst, urination and tiredness. Lawrence has played this character countless times before. While inadvertently fiddling with the starched sheet draped across his lap, he feels something prick him.

He exams the sheet and discovers a needle; a hospital needle. This is NOT part of the scenario. Lawrence says to the learner "I just got stuck by a needle!" The learner trying very hard to remain calm as Lawrence jumped off the exam table, says "OK, Mr. Turner we can take a look at that." "My name isn't Mr. Turner, its Lawrence Belmonte". The learner had heard there might be a paranoid schizophrenic case and says, "Yes, Mr. Turner why don't you just sit back down on the exam table – then we can talk about it. What other names do you have? Soo I'm talking with Lawrence now, right?" "Lawrence getting more and more panicked runs out of the room into the center hall and…well here we are.

So, what to do?

1. Who goes and explains what just happened to the dazed and confused learner in exam room 5?
2. What about the rest of the learners standing about or ready to go into their next session?
3. What about the video of the incident? Does the legal department of the institution get called?
4. What is the center's safety policy regarding their employees? Is there even a safety policy? Are they covered under the medical school or hospital policy?
5. Is there anything in the SP contract?
6. What happens to the recordings? How do you now score a high stakes assessment that has had such an emergency interruption?

As you can see many questions emerge from one 3-minute incident. This was a real scenario that took place at a large metropolitan medical school. Even with many policies in place, one can't prepare for every possible situation but with some guiding principles to help establish your policies and procedures manual most issues will be covered. If you don't have one, get one. Check in with other programs that are similar in size and scope. If you do have one, dust it off and take a fresh look at it every year or two at the most to see what needs updating and modification. There is always something that you have forgotten, that needs to be revised or deleted. Remember, policies & procedures should be living, breathing documents that are updated as needed. Don't feel pressured to include everything you might possibly need before you release it to SPs and staff. To paraphrase an old proverb, don't let perfect be the enemy of good. Otherwise, you'll never get it done.

Let's clarify the difference between a policy and a procedure as represented in Fig. 10.7.

Policies are principles and rules developed by an organization to meet its long term goals. Procedures details the steps to be taken to meet the policy.

Where to start?

As you begin to create or update your policy and procedure (P&P) manual, consider who the focus is. Is it the faculty? It is the administrative staff? Is it the SPs? While there will be some overlap, each group requires different information. If you make a one fits all P&P manual, you will probably end with over 100 pages. While it will be comprehensive, most of us would not read it. Remember, P&P should aid your operations, not hinder it. Overall P&P and procedures should:

1. Be clear
2. Be easy to read
3. Provide the right level of information to the intended audience.
4. Be in place for years, regularly reviewed, and changed
5. Have updates and new policies communicated to intended audience in a timely fashion

Who can help?

We all come into this occupation with a variety of experiences and training. It is impossible to have skills in *all* the areas of business, marketing, education, management, teaching, facilitation etc. Therefore, utilize resources internally and externally as much as possible. ASPE has created a wonderful network of educator/managers who continue to use the power of annual meetings (preconference workshops as well as conference programing), Listservs and networking to find pertinent and up to date information to immediately apply at home institutions. Most programs are part of a larger institution which operates in compliance with their state and federal laws. In addition to helping you with how to draft policies and procedures, the human resources (HR) department and legal department will also confirm that you are meeting the institutional, state and federal requirements. HR, for instance can be very helpful with items like an organizational chart, defining and creating contracts for your SP and how they will be compensated, budget development and hiring and firing procedures and documentation.

What should be included?

In Table 10.5, Pritchard et al. and Lewis et al. provide frameworks from which to build your policies and procedures manual [1, 18].
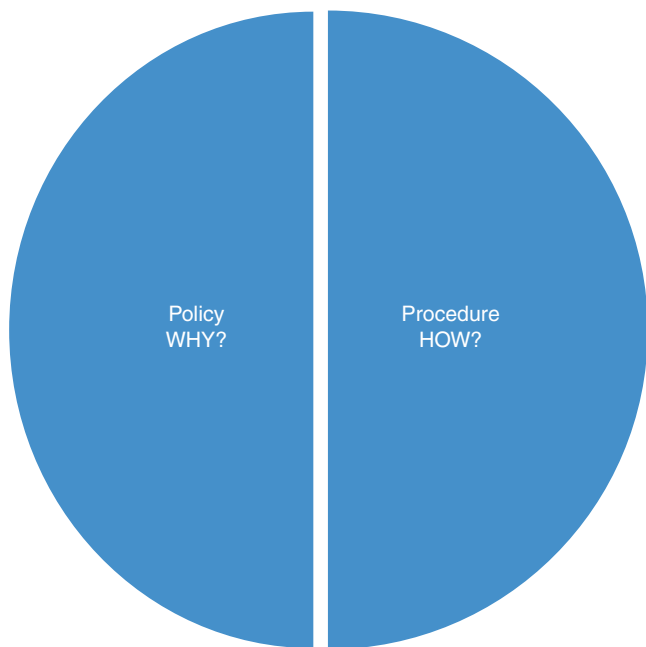
Fig. 10.7 Policy & procedure

(Pie chart showing two halves: "Policy WHY?" and "Procedure HOW?")

Table 10.5 SP program frameworks

Pritchard et al. [18]	Lewis et al. [1]

Directing SPs for safe and meaningful interactions.
  Orientation
  Overseeing the interaction
  Debriefing for redirection and safety
  Confidentiality
	Safe Work Environment for the SP
	  Safe work practices
	  Confidentiality
	  Respect

Selecting SPs
  Screening for suitability
  Education of core skills
  Feedback
Preparing SPs (for a chosen case)
  Explanation of case
  Demonstration
  Facilitation
	SP Training
	  Portrayal
	  Feedback
	  Assessment instruments
	  Reflection
	Assessment Case
	Development
	  Preparation
	  Case Components

Managing SPs
  Operationalizing an effective program
  Program management
  Payroll
	Program Management
	  Purpose (vision, mission, goals)
	  Records management
	  Diversity and Inclusion

Let's look at what a Policy and Procedure manual for an SP program would look like. In general, when creating policies and procedures for SPs, consider the following:

Get Organized Before Writing

Ensure your policy can accommodate the following questions:

- Can employees be trained on this?
- Can this be supervised?
- Can this be reported on?
- Can this be investigated?

Policy Structure

Create a template that can be reused (consider your institutional template)

- Purpose statement
- Policy statement
- Definitions
- Procedures
- Allowed conduct
- Prohibited conduct
- Disciplinary action if policy broken
- Reporting requirements- there are some institutional policies and procedures that have predetermined requirements. Link these in your policies and procedures manual.
  - A detailed account of the incident
  - Employee testimony
  - The testimony of any witnesses
  - Required disciplinary action

A word to our US readers

Regardless of where you are geographically in the United States, there are several federal laws you need to be aware of and follow: FERPA (Family Education Rights and Privacy Act), HIPPA (Health Insurance Portability and Accountability Act) and ADA (American with Disabilities Act).

- The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. In our case, this would include grades on checklists, videos of student performance etc. To learn more, go to **https://student-privacy.ed.gov/.** You can search your own institution's policy and procedure regarding FERPA. In most case, after a description of what it means to the SP program, you can link to the institution's policy and procedure.
- The HIPAA (Health Insurance Portability and Accountability Act) Privacy regulations require health care providers and organizations, as well as their business associates, to develop and follow procedures that ensure the confidentiality and security of protected health information (PHI) when it is transferred, received, handled, or shared. This applies to all forms of PHI, including paper, oral, and electronic, etc.

Furthermore, only the minimum health information necessary to conduct business is to be used or shared. Think through what aspects of HIPPA are relevant to your SP program.

- The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else.

If you are feeling overwhelmed by the wealth of information needed to produce a clear and comprehensive SP P&P manual, have no fear. We have provided you with a template based on examples of manuals from established and reputable institutions. Four important things to remember. Be sure you are:

- Addressing the issues most important to your program.
- Addressing the issues most important to your SPs.
- In alignment with your institutional policies and procedures.
- Reviewing, updating and communicating changes to all.

How do you distribute the policies and procedures?

A well written and comprehensive P&P manual will be worthless if no one is aware it exists or never reads it. What is the best way for you to distribute your manual within your program? Should each SP get a copy? Should you post it on your website? Copies in the SP lounge or breakroom? You might want to do all three. Some programs ask each SP to sign a statement certifying that they have read, understand and agree to follow the Policies and Procedures outlined in the manual. This step can be repeated when there is an update or addition, or yearly. You will find a sample template for an SP Program Policies and Procedure Manual in Appendix 10.1. You can add or subtract elements as fits your program.

Beyond Policies and Procedures

Some programs have the SPs sign a contract or letter of agreement highlighting important elements of the SP position. (See Appendix 10.2 Template). Other programs add additional contracts or letters of agreement for specific roles such as being a model for Point of Care Ultrasound Training. You will want to consult your HR and legal team on language. (See Appendix 10.3 Template). In addition to hiring and training SPs, SPEs are also responsible for a myriad of administrative and logistical functions.

Records Management

It is key to develop systems to protect the security, integrity and accessibility of records, to retain records to meet applicable laws and regulations, and to ensure that records are

discarded at the appropriate time. If you are part of a larger institution, consult and refer to their policies and procedures. If your program is responsible for assessing learners for feedback or advancement, you will need a system in place for reporting learner performance back to key stakeholders. Work with faculty, administrators, human resources and legal to assure that you cover every situation regarding storage, archiving and how long records need to be stored.

While many institutions use a learning system specifically created to capture learner performance and securely store data, it is not unusual to need to supplement these systems based on the specific needs of the stakeholders.

SP Cohort Management

Job Application Processing

- Does your program manage the job application process or does your institution's Human Resources department support?
- Do you have an SP-specific job application?
- How do people apply for an SP position? Is the application housed on your web site?
- What is the interview process? How do you record notes on applicants?
- From application to interview to hire, what are all the steps involved? Are they streamlined and standardized?
- When you hire an SP, would you like them to automatically be added to your database, or are there other steps involved? How much control do you have over the hire process?
- Would you like instant reports on applicants and prospective employees?
- Do you require photos on your applications?
- Does your institution require background checks?

SP Database

- What information do you want included? Data may include contact information, health history/physical presentation, scars/tattoos, work history, and photos.
- Should SPs manage their own profile—i.e., update changes to their physical presentation, change of address, etc.?
- Would you like to include trainer notes or tracking issues such as callouts and tardiness?
- How many SPs are in your pool? Is that number growing/expected to grow?
- Do you want records of SP-case performance—i.e., which cases SPs have performed or for which they are eligible to portray?
- Would you like to search/sort by SP demographic? Is it important to know how many SPs in a given demographic at a given time?
- Do you want to include annual performance evaluations?

Scheduling SPs

- Are your programs/courses centralized in one location, or do they take place in different places throughout your medical school or health system?
- Should scheduling for SP assignments be in one system, regardless of location, or do you prefer separate systems depending on type of program?
- How automated do you want scheduling to be—i.e., would you like the system to select SPs for you, or do you want to control that process?
- Do you want SPs to enter all availability first, then you select SPs based on availability, or invite SPs you want to work, and place the onus on them to accept or decline an invitation?
- Would you like the SPs to sign up on their own, on a first-come, first-served basis, or would you prefer more control over the scheduling process?
- Should SPs be allowed to log in to check their schedule?
- Do you want a center-based or web-based scheduling system?
- Would instant reports on SPs invitations and confirmations be helpful?

Time and Expense Tracking

- How to manage resources and track expenses?
- Do you want a system that links SP payroll records with programs worked?
- How many clients do you serve? Is it important to have reports on expenses by client?
- How many learners do you support? Are all your learners' medical students, or do you provide services to residents, nurses, pharmacy students, et al.?
- Do the data need to be secure?
- Who needs access to the information? Faculty, SPs, SP administrators?
- Would reports on time and expenses by program help you with budget forecasting?

Team Management

Communicating with Your Team

Communicating with the rest of the team is essential so that the team is rowing together. Often, we become so enmeshed in our day-to-day responsibilities that we lose sight of how much SPs appreciate knowing what is happening behind the scenes. Besides scheduled meetings, another way to engage and retain SPs is keeping them abreast with an online newsletter or periodic email updates. Social media can be leveraged as an SP team-builder – highlighting projects SPs are doing outside of your program, helping SPs network with

other SPs. Some programs feature an SP of the month or quarter, again to shed a spotlight on interesting aspects of their life outside of SP work, and to give them a forum to share insights on their SP work.

Ongoing Professional Development or Maximizing SPs Potential

Considering it can take more than a year to train an SP, is it very important that we provide a track for them to expand their skills. Here are a few ideas:

1. Considering create a near-peer mentoring program. A near-peer relationship is between one who is already trained and experienced in what the other wants to learn. A near-peer mentoring program can be a low-cost way to train new SPs and provide member of your SP team with a chance to expand their skills set. Trainees report feeling more at ease learning from a peer than from a supervisor [59]. Employees paired with a peer mentor are twice as likely to remain at the job [60].
2. Identify and select SPs to become trainers, managers and coordinators. They are in a unique position as they know the program, but this transition can be difficult is not done thoughtfully. They are moving from being an SP to an administrative role. There is a change in the dynamic from being one of the SPs to having oversight over the SPs. You will need to help them re-define their role and help the SPs understand the new relationship. Consider sending them to SPE conferences so they can begin to network. It will be important to check in frequently and identify what is working and what is not working. Addressing what is not working early and often will help the transition for the SP, the SP pool and you.
3. Help with case writing, video review and any number of tasks that usually fall to the core team.
4. Include SPs in process improvement. Form a quality improvement committee made up of SPs to review program evaluation information and feedback from SPs and faculty. Together you can create a process improvement plan that is sure to address all the stakeholders especially the SPs.
5. Include SPs in a Recruitment/Retention Committee. Tasks could include helping staff screen and interview candidates and on-boarding of new SPs.

Quality Management

A commitment to continuous quality improvement (CQI) is essential to the function, quality, and growth of any SP program. Whether the activity is learning or assessment, having quality control processes in place is critical to conducting

valid and reliable simulations [61–65]. Of course the quality of your program starts with the multi-step process of case development. Areas of focus to include in your CQI process include but are not limited to:

1. SP
   - Portrayal (appearance, physicality, symptom presentation, and/or physical exam findings)
   - Feedback to learners
   - Completion of assessment instruments (Inter-rater reliability)
2. Case development including checklists and assessment instruments
3. Administration and logistics

An approach recommended by Vordenberg et al. is to use the Plan-Do-Study-Act (PDSA) method (Fig. 10.8) [66]. The Institute for Healthcare Improvement (IHI) defines The Plan-Do-Study-Act (PDSA) cycle the scientific method used for action orientated learning [67].

Plan

Develop a plan to assess each element listed. How will you evaluate training, SP portrayal, feedback (written or verbal) to learners, and accurate completion of assessment instruments? How will you evaluate the impact of the administration and the logistics on quality?

1. Create a process to gather learner and faculty evaluation of the activity. Gather SP feedback during training,
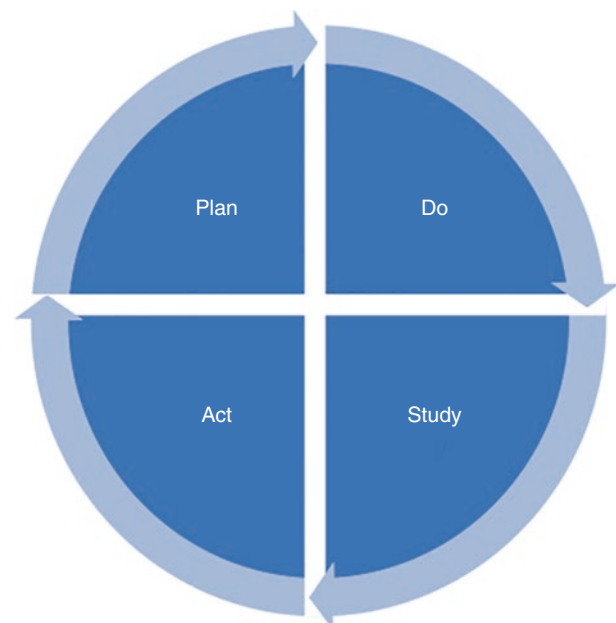
Fig. 10.8 Plan-Do-Study-Act

debriefing or focus groups. Debrief with trainers/coordinators. Include evaluation of administration and logistics. Give equal weight to feedback from each group.

2. Create or choose a validated tool to assess SP portrayal.
3. Choose a method to assess SPs skill in correctly completing assessment instruments.

Do

Carry out evaluations, SP observations and calculate reliability of assessment instruments. Prepare a report based on all data gathered.

Study

Provide report to you CQI team prior to meeting. Convene your CQI team. During the meeting, identify what worked and why, as well as what did not work and why.

Act

Outline what changes should be made in the next iteration, or in SP training to address areas identified for improvement. Implement those changes and continue the PDSA cycle.

Let's look at ways to gather data for your CQI process.

SP Accuracy

Monitoring SP portrayal, feedback and accuracy in completing assessment instruments and providing them with feedback is one of the most effective ways to maintain the role and integrity of the simulation. Consistent feedback to the SP on their performance (including completing checklists) contributes to the maintenance of the standards that were established during training. As your program grows, CQI becomes more difficult and more of an imperative, as SPE cannot see everything that is happening. Many SPEs report difficulty in maintaining accuracy over several sites or several days. Direct observation, double scoring of assessment instruments and program evaluation are three common ways SPEs assess quality.

Direct Observation

Depending on the context, the SPE may arrange to randomly observe the SPs live performance, or for high stakes assessments, observe each SP portrayal. If observation is not possible, consider viewing videos of SP performance. A form to assess the SP portrayal from training to activity contributes to quality portrayals by providing standardized feedback to the SP. These forms can be completed by the SPE or SPs who

have been trained in the same case. There is an advantage for an SP observing the case they have been trained to portray: self-calibration and calibration within the group portraying the same role and developing the same language when answering learner questions. Many SPEs design their own internal performance/quality assurance forms to use from training and throughout the activity. Here is sample of common elements:

Sample Questions for a Portrayal and Quality Assurance Form:

Did the SP use the opening statement/line verbatim? (Yes No)

Performance: History of Presenting Illness

- Details of case and content items i.e.: *SP stated her headaches lasted 2 hours*
  - Did not tell when prompted
  - Not asked, volunteered
  - Not asked, not told
- Please describe any inaccurate details provided by the SP
- Specify any other accurate details provided
- General HPI performance comments

Performance: Past Medical History

- Please describe any inaccurate details provided by the SP
- General PMH performance comments

Performance: Social History

- Please describe any inaccurate details provided by the SP:
- General SH performance comments

Performance: Physical Exam

- On a scale of 1–10, what was the SP's pain level presented (scale 1–10)
- Did the Pain level portrayed reflect the trained level for the case?

Performance: Emotional State

- Please rate the level of affect presented by the SP during the consultation (Affect scales 1–10)

Performance: Authenticity

- Did the SP stick to the trained script? Yes, No, Not sure
- Did the SP use the trained questions and phrases? Yes, No, Not sure
- If necessary, did the SP adapt the script realistically to fit his/her situation when untrained issues were brought up by the physician? Yes, No, did not have to adapt
- If yes, detail untrained issues:

Table 10.6 Kappa values

	Poor	Slight	Fair	Moderate	Substantial	Almost perfect
Kappa	<0.0	.20	.40	.60	.80	1.0
	Less than chance agreement	0.01–0.20	0.21–0.40	0.41–0.60	0.61–0.80	0.81–0.99

Performance: Response to Learner Questioning

- Closed-ended questions: when the physician asked a closed-ended question, did the SP answer appropriately with one word (Yes/No), or a brief phrase? (Yes, No, Not sure)

- Open-ended questions: when the physician asked an open-ended question, did the SP answer appropriately and give sufficient information related to those questions? (Yes, No, Not Sure)

Did the SP provide case phrases and cues? (Yes, No, Not sure)

Performance: Overall did the SP (Yes, No, Not sure)

- Portray the appropriate appearance (posture and effect)
- Portray the appropriate behavior
- Appropriate response the physical exam
- Appropriate use props
- Maintain their role throughout the session
- Portray the role convincingly

If you are interested using published, reliable and valid instrument to assess SP portrayal consider the Maastricht Assessment of Simulated Patients (MaSP) [68] and the Quality of Standardized Patient Feedback for verbal feedback [69].

Two or more raters can score the same encounter to assess for inter-rater reliability [70]. Inter-rater reliability can be measured by percent of agreement. Wallace recommends goal of 100% and no less than 85% agreement [71]. If you have access to a statistician or are using a commercial management program, you can calculate Cohen's Kappa [72]. Kappa values fall between −1 and +1. The higher the Kappa value the greater the agreement [73]. See Table 10.6. Different kappa values are appropriate for different types of assessment. For formative assessment for the purpose of improving performance and behavior, 0.40 or above is acceptable. For summative assessment which measures outcomes or achievement of objectives at the end of a course, 0.60 or above is desirable. For high stakes summative exams which are used as part of licensing process should be at least 0.75 or higher. Ideally you will set the benchmark for your program at the start of the process. Consider how you will use specific SP data for feedback and assessment of how well the SP is meeting that benchmark.

Program evaluation

Providing an online or paper evaluation to measure learner, faculty, staff and SP satisfaction should be a standard part of every event. Some institutions have SPs and trainers debrief

verbally and also submit a brief online form to capture any lessons learned. For example, are any changes to the training protocols necessary? Were the SPs prepared, or were there questions they weren't expecting? Student feedback should be addressed. Did everyone know where to go, and was the room ready for the session? Logistical changes and case clarifications need to be documented in a timely way so they can be implemented before the session runs again. Was the SP portrayal authentic? Was any of the SP feedback unclear or inconsistent? Creating a CQI program allows you to assess the quality of the program, provide SPs with feedback they crave, and to inform stakeholders on your program's successes.

Now it is time to document and codify all of the processes you have developed into a policy and procedure manual. Just like your mission and vision, your policies and procedures will guide all of your program activities.

Conclusion

Having a well thought out and well documented program management approach based on best practices will ensure that you will meet the vision and mission of the program. Working closely with your legal and human resources staff will guarantee ongoing administrative, educational, and quality management of your program.

Box 10.1 First Contact
"We send them an information packet that describes some basic concepts about the program and the operations of the program. So right then they're being trained."
　　Todd Lash, SPE and Education Resource Specialist at the Clinical Skills Education and Assessment Center at the Ohio State University College of Medicine (COM)

Box 10.2 Recruitment Exercise
Watch a video of an SP portraying a role and discuss appropriate feedback/checklist and the observation skills needed
　　"We see if they can handle the judgment side of it, in other words, we discuss the evaluation piece, either in feedback or in completing checklists."
　　Carol Pfeiffer PhD Standardized Patient Educator, Professor of Medicine, University of Connecticut

Box 10.3 Onboarding

"*Because we cover these things during onboarding, we don't have to go through and talk about them during (specific) case training i.e. Communication, "how" to deliver feedback, how to fill out a checklist, how to read your case, how to study, and the learning preference of the SP.*"

Tamera Owens, PhD, Founding Director of the Clinical Skills and Simulation Centers at Howard University Health Sciences

Box 10.4 Identities

1. Race/ethnicity/culture
2. Gender/sex
3. Age
4. Sexual orientation
5. Weight
6. Education
7. Socio-economic status
8. Religion
9. Ability
10. Documented status
11. Language
12. Accents
13. Geography
14. Tobacco, alcohol, drug use

Box 10.5 Increasing Diversity

Work with your SPs from unserved/underserved/under-represented communities to increase recruitment from these communities. They will have connections to others in their community.

Having experience as an SP and understanding the cultural norms of their community allows them to better explain the work.

Partner with them to develop materials, like handouts, and talking points. Ask them to look at any other materials like your website and provide suggestions on improving appeal to a diverse community.

This approach can broaden your reach in the community and help cultivate a pool of committed and diverse SPs.

Box 10.6 Employment

Remember that the application processes needs to be in line with your institution's Human Resource (HR) policies. Some institution's applications are based in the HR department and the SP applicant must go through HR processes. Other institutions allow the Simulation Center or SP program to work directly with the SP applicant.

Box 10.7 SP Program Management Software

There are commercial and free online options. When choosing a management program consider the follow requirements:

1. Can they help run SP sessions?
2. Can they video-record SP encounters & learner performance?
3. Can it house case information, including assessment instruments and mechanisms for scoring?
4. Can the system track resources and does it provide a calendar function?
5. Can it track SP information including scheduling, payment, time/expenses and job applications?
6. Does the initial cost and ongoing service contract fit into your operating budget?

Box 10.8 Team management

Managing expectations of SPs and advocating for their well-being can be a tricky balancing act, especially when an SP transitions to an oversight role.

Box 10.9 Tip

Encourage SPs to review their roles immediately before the simulation to check details and clarify vague areas with you if needed. Conduct a post-activity debriefing to allow SPs to ask clarifying questions to be applied in future activities.

Box 10.10 Tip

"*I create a case specific 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, MS,MEd

Appendix 10.1 Template for Policies and Procedures

Insert Logo

Insert program name

[Document title]

Address

Phone number

Web address

Email:

Insert author's name

[Date]

Table of Contents

Standardized/simulated Patient Program Faculty Staff and Contact Information

Position	Name	Email	Phone number

Introduction

Mission

Vision

Organizational Chart/s

What Is a Standardized/Simulated Patient?

> **Recommend using a standardized definition. This can be found at the Association for Standardized/simulated Patient (ASPE) website: https://www.aspeducators.org/ or in the Society of Simulation in HealthCare Dictionary https://www.ssih.org/Dictionary**

A person who has been carefully coached to simulate an actual patient so accurately that the simulation cannot be detected by a skilled clinician. In performing the simulation, the SP presents the gestalt of the patient being simulated; not just the history, but the body language, the physical findings, and the emotional and personality characteristics as well (Barrows HS. Simulated (standardized/simulated) patients and other human simulations. Health Sciences Consortium; 1987).

Information for Standardized/Simulated Patients

Qualities of an Excellent Standardized/Simulated Patient

> **Outlining these qualities will help people figure out if they would be a good match. It also starts outlining the expectations. You could also include this in a job/position description. Here is a compilation of examples:**

- Flexible work schedule: Program needs vary from month to month. Some activities are planned a year in advance; others with only a week or a day's notice.
- Ease with people: We work with many different students in many different stages of training, so it is important to really like people and like working with students.
- Comfort with body: You need to be willing to have physical exams performed on you; often the same exams are done many times during a session.

- Comfortable "being on stage": While you aren't physically on a stage, you are performing a part. You are likely to perform that same part over and over again within a 4–8 hour period as each student gets a chance to interact with your case.
- Good observation skills: Because you'll be evaluating student performance and sometimes giving the students feedback about their performance, you will need to be able to be "in role" and observing at the same time.
- Good memory: In a testing situation, you'll need to remember what a student did or didn't do during a 15–45 minute encounter in order to evaluate them at the end.
- Ability to provide feedback to learners
- Adaptability: We're always updating and improving our cases and procedures, and we frequently introduce new cases. You will need to readily "relearn" things in a new way and adapt easily.
- Comfort with keyboarding skills: Basic computer (keyboarding and mouse) skills are required.
- Enjoy working with a group of people who are truly committed to making a difference in the education of our future healthcare providers, one student at a time.

What Can a Standardized/Simulated Patient Do?

> **Depending on where your program is, you may use SP methodology in teaching, assessment, research and/or quality improvement activities. As each of these has a different goal, it is helpful to explain what and how the SP works in each.**

1. Teaching:
   (a) Communication and Interpersonal Skills
   (b) History
   (c) Physical exam training
   (d) Specific- Gynecology and or Male Genitalia Teaching Assessment
   (e) Simulated participant in a mannequin simulation
   (f) Hybrid/mixed modality simulation
   (g) Other:
2. Assessment:
   (a) Formative
   (b) Summative
   (c) High stakes
3. Research
4. Quality improvement

Training

> **Important to outline how people are trained to become SPs and trained to specific roles or purposes. You might outline general training rules in this policy and procedures and then training rules for specific activities. Here is a compilation of examples:**

- As a new SP and on a yearly basis, we will review this Policy and Procedures Manual
- Training is required for specific sessions or programs. You must attend the training to perform in the program.
- The training session will provide you with the following information:
  - Whether this is teaching or assessment activity.
  - The objectives of the activity
  - The type and level of student you will be seeing (year, medical, nursing student, etc.)
  - The "case" materials which include the healthcare and personal facts about the patient you are to portray.
  - A clear understanding of the checklist (if used) and how to score it.
  - A training video of the case including SP presentation if available
  - A presentation on verbal and or written feedback, if you're required you to give feedback.
  - Expected attire: whether in hospital gown or clothes appropriate to the case
  - Logistics- day, time and location.
- The patient you are portraying may have very different answers or reactions than you would personally. You are expected to portray THAT person, not yourself.
- If at the end of the training you do not feel you are appropriate for the role or do not feel prepared to perform in that session, talk with the SPE.
- Do NOT wait until the day of the session to ask questions. **You can contact the SPE by voice or email 24/7!**
- You will be expected to study and <u>know</u> your case.

Teaching Sessions

> **All of us like to be clear about what is expected of us. Based on your activities, provide SPs with details they will need to do a good job.**

- You will be told to *arrive 15 minutes before the session* formally starts. This is paid time that is built into your schedule for preparation and set up. We expect you to be ON TIME. Proctors can be reached by PHONE OR TEXT ANY TIME if you are running late and need to give us a "heads up".
- Do not allow a faculty member to change your simulation. You have been trained from a case with the realistic physical findings, history and psychosocial problems. If the facilitator wants to change your simulation, explain your need to remain as you were initially trained and refer them to the SPE.
- However, if the faculty wants to "tune" your affect (to increase your anxiety or decrease your anxiety, for example) or your "setting" (i.e., clinic office, ER, etc.) this is appropriate. Please note this change and alert the SPE.
- If you are working with a group in a process called a "rolling roll play", students take turns working with you. The faculty and or students can call a *"time out"* which is a valuable learning process for the students. When you are in *a "time-out"* period it is important for you to continue (i.e., facial expressions, body language, etc.). However, do NOT interact with the student or group until *"time in"* is called. Note: During the *"time out"* the faculty and or student may want to "rewind" from the beginning or another student may want to pick up where the other left off. Pay attention to the discussion in the time out and then adjust when "time in" called.

Assessment Session

- You will be told to *arrive 30 minutes before the session* formally starts. This is paid time that is built into your schedule for preparation and set up. We expect you to be ON TIME. Proctors can be reached by PHONE OR TEXT ANY TIME if you are running late and need to give us a "heads up".
- Immediately upon arrival – before socializing, please:
  - First thing: Turn on and log into computer in your room. Log in to the checklist. Report any computer problems ASAP to the proctor.
  - Set up all exam equipment needed.
  - If using oto-ophthalmoscope, attach battery portion to top portion. Check to see if the battery and the bulbs in both heads are functioning.
  - Check supplies (swabs, cotton balls, tongue depressors, etc.) and fill as needed.
  - Have a sufficient number of drapes in your exam room. Put one fresh drape on the stool for each student required to perform physical exams.
  - Make sure there are cups for water available.
- Make sure that you have paper checklists (in case of a computer meltdown) and a schedule with student names. Put these out of sight before the student comes in the room. Close the cover of the computer monitor before the student enters in the room.

- Take time to discuss details of your case with other SP(s) portraying the same case.
- Breaks and time for meals or snacks may be built into a session. You may use the SP lounge during this time as long as you are back in your room before the next student encounter. Often, snacks or meals are provided, although you're welcome to bring your own food if you prefer. We ask that you do not leave the building during this time.
- If a student assigned to your room doesn't show up, ask the proctor what the situation is. If the proctor assures you that the student is not coming, you may then press the NO SHOW button on the computer beside the student's name.
- If the *wrong student* comes into your room: If the encounter is an exam, stay in character and perform as trained. Afterward TELL THE PROCTOR IMMEDIATELY. Fill out a paper checklist and put the encounter # and student name on it.
- Papers: At the end of the session, if you haven't used your paper checklist hand it to the proctor for use at a later date. You may recycle your schedule.
- Clean-up is crucial! Many people use the exam room for various activities. Please respect it and leave it as clean as – or cleaner than – you found it.
  - Change pillow cases and roll out fresh paper on exam tables.
  - Plug in scope battery.
  - Wipe water off counters.
  - Take all paperwork, training materials, pencils, clothing, and personal items with you. Double check the cupboards!
  - Place your gown in the hamper.

Learner- SP Encounter

- Remember that the focus of the encounter is the learner. Each case must be portrayed accurately to the checklist and training.
- Attire: For men: gown with underwear (briefs or boxers). For women: gown, bra (not athletic type), and underwear (bikini, hipsters, or briefs – no thongs). For any case where there is any kind of examination of the feet, there are no socks or footwear allowed. For some cases, street clothes will be appropriate; this will be covered in training.
- We are trying to make the encounter as real as possible for the student. Keep your personal belongings stashed below the sink during the encounter.
- Do not act like a "professional" patient. Do not prompt the student to pull out the footrest, or offer your arm before they ask to take your blood pressure, move gown or drape before asked, etc. REMEMBER that you are supposed to be UNFAMILIAR with your surroundings.

- We record all assessment sessions and the video and microphones stay on in between students. Don't say or do anything that you would not want recorded.
- If you have a question on how to score something, ask the SP Educator/Proctor

Confidentiality is key to the integrity of your program. Confidentiality applies to learners, SPs, case materials and more. This may a place to reference your institution FERPA and or HIPPA policies.

1. Learners
2. SPs
3. Case materials

Our Commitment to Your Safety

Safe work practices: At each level of an SP program, it is your responsibility to create a safe working environment.

It is our responsibility to assure that you are working in a psychologically and physically safe work environment. To that end we will,

1. Help faculty/staff understand the scope of SPs work and understand potential threats to physical/psychological safety. For example, when designing the flow of activity with faculty, we will consider the # of repetitions and breaks to assure reasonable expectations for SPs.
2. Ensure you are appropriate for the role- by making sure there is no conflict of interest, and considering your personal medical history and psychosocial history. For example, you may not want to play to case of an intimate partner violence (IPV) case if you have experienced or know someone who has experienced IPV.
3. Provide you with information you need to make informed decision for saying yes. We will provide you with background information on case, case specific key objectives, SP responsibilities, context (e.g., formative, summative, level of learner, placement in curriculum) and format (e.g., length of encounter, type of encounter) so you are clear about their role. You need to be clear about what physical exams they will be and how many times they will do it.
4. Respect your decision to decline the offer or drop out of activity if you feel you are not a good match without having to provide a reason or be concerned about offers of future work.

5. Once you agree to a session, we will work with you to identify any threats to your physical/psychological safety as we go through training together. We will work with you to identify potential adverse effects of role portrayal and strategies to address them. We will share any potential hazards, like use of sharps, or environmental factors, in order to mitigate risk.

6. Agree on the criteria and process for you and/or faculty to terminate a simulation if needed.

7. Monitor the simulation and respond to immediate your needs.

8. Schedule a debriefing and de-rolling as close to the simulation as possible.

9. Provide a process for you to share any post activity adverse events.

10. Support you, when following policies and procedures, if a complaint has been made you.

Etiquette

> **Working as an SP is different from other jobs. It is a good idea to layout the rules of behavior expected of an SP in role and out of role.**

- No cell phone use in the exam room. Please make calls during the break (quietly in SP lounge or hall outside of lounge).
- Cell phones must be turned off or "silent" during SP sessions – even if they're left in SP lounge.
- No conversations in the exam rooms or inner hallway while testing is in session. Please go to the SP lounge.
- When in the lounge during a testing or teaching encounter, be aware of noise level. You must keep voices at a low volume.
- No food or drink (except water) is allowed in the exam rooms.
- When in hallways or lounge, please make sure to "cover your assets". If you're wearing a gown that ties and is open in the back, wear a sweater on top or wear another gown as a jacket. *If you're wearing a gown that closes with Velcro or crosses over in the back, you don't need another layer.*
- While bare feet are expected in the exam rooms and acceptable in the SP lounge, you must put on footwear if leaving those areas.
- Take excellent care of all equipment. Put it away neatly as described on equipment box and place in cupboard under the sink – after EVERY session!
- Report any broken or malfunctioning equipment to SP Educator.

- If you use up or nearly use up supplies from the closet alert the SP Educator so we can order replacements & not run out at an inopportune moment.
- Many people use the exam room for various activities. Please respect it and leave it as clean as – or cleaner than – you found it.
- Help keep the SP LOUNGE clean.
  - Discard plates, food, drinks, and cups after use (right away please, not hours later).
  - If you use non-disposable cups wash them, dry them, and put them away. Do not leave them half full in the lounge. Double check this before you leave.
  - Keep clothing and personal items in your room, in your locker, or hung on hooks in the lounge. Do not leave them lying around. The chairs & sofa should be available for people to sit on.
  - Double check the SP lounge and your room before you leave!

Scheduling or how do I get to work?

> **For most programs, SPs are employed on a part time basis. Often times, people who work as SPs are retired, students, work a series of part time jobs etc. As such it is important for them to understand the rules of being offered work. Be as clear as you can with the process you use. For example, how will you contact them, how much time do they have to respond before the work is offered to another SP?**

- SPs are contacted by email, so please check your email each day. (Occasionally SPs are contacted by phone when time is short, but that's the exception.)
- SPs are chosen the way actors are cast in a play. Many things are considered.
  - High stakes exams or a higher level of student may require a more experienced SP.
  - Age, gender, body type, and certain physical characteristics may be specified in the case.
  - Past experience/training in a particular case.
  - Development of skills. We may assign you to a particular program so that you can learn a new set of skills.
- When we contact you about your availability for a program:
  - This is not a confirmation. You must get back to us promptly to let us know that you want to perform in this program. *IF the slot has not already been filled, you will be assigned and will receive a confirmation by email.*

– Please reply <u>promptly</u> if you cannot work a time or case that we have requested. We need to know so that we can schedule someone else.
– Your confirmation will include the training date and time; dates, time and name of program, and name of the trainer. YOU MUST put this information on your calendar!
– *We will contact you* if we have work available for which you are suited.
- When we offer you work, you are free to decline.
- We reserve the right to not call you if
    – You miss a training or session without notifying us
    – Being repeatedly late for a trainings or session
    – Acting inappropriately or unprofessionally with a student, staff or faculty member
    – Breaking any policy of the program or the institution included in this document
    – Breaching confidentiality
    – Failing to accept the authority of the SPE, staff or faculty during a training or session
        Adding material into the case that is not in script
        Providing feedback that is not included in training
        Challenging the SPE, staff or faculty

Our expectations of you

> **SPs are the backbone of the program. It is our obligation to provide them with a safe and respectful work environment. While these issues are covered throughout the manual, it is important to be explicit about our expectations of them and what they can expect from us**

Professionalism
- You will attend all trainings and sessions that you have committed to.
- If unable to attend a training or session, you will contact the trainer AS SOON AS POSSIBLE.
- You will always arrive on time.
- You will know your case and portray your role as trained.
- You will be aware of time and be in your exam room 2–3 minutes before the beginning of each assessment.
- You will complete your work in the time allotted.
- When required, you will provide honest and objective feedback, as trained.
- If you are experiencing any difficulties or conflicts with faculty, staff, or students please address these concerns in a timely manner and in detail to an SPE or Director. For example
    – Student performance or understanding seems notably below that of classmates.

– Student or faculty's' behavior appears unprofessional, offensive, or bizarre.
– Student or faculty's behavior feels unsafe for student or SP.
– SP feels uncomfortable or disturbed by student or faculty behavior.

Confidentiality
- You will not discuss any other SP performance with other than the SPE or Director
- You will not discuss student performance or appearance with anyone the SPE or Director.
- You will not discuss your roles here, or share case material with anyone
- You will keep secure any case material and use it only to review before performances.
- You will not take pictures, make comments on any social media.

Your expectations of us
- To be treated with respect and consideration by the faculty, staff and students.
- To provide you with the information you need to accept or refuse a role.
- To be trained adequately for your job
- To get feedback and to be instructed as to how you can improve.
- To be paid for the time that you are scheduled to train and work.
- To understand that true emergencies do occur and you will not be penalized when they happen.
- To keep your status as an SP confidential unless you tell us otherwise.
- To follow up on concerns you bring forward about any aspect of the program.

Performance Feedback

> **In order to establish and maintain the quality of the program, it is important to outline how SPs will receive feedback on their observation of the policies and procedures and on their performance whether it is teaching or assessment. Who will do it? How often? What tools? How will the SP learn about the feedback? What happens if the SP shows a below level performance? Is there a remediation process?**

You will be assessed on the following:

- Attendance
- Ability to be flexible

- Maintaining a professional and positive attitude when working with faculty, staff, students and peers
- Portrayal of case
- Checklist accuracy
- Verbal or written feedback accuracy
- Following the Policies and Procedures outlined in the document

You will meet with the SP Educator once a year to review overall performance evaluation.

You will receive immediate constructive feedback if needed.

If there is no improvement, after remediation, you may be released from the program.

SP Feedback to the Program

> **To maintain on ongoing quality improvement culture, it is important to provide a mechanism for SPs to provide feedback to the program. Ideally, provide a way for SPs to give feedback on training sessions, teaching and assessment sessions. They can add invaluable information that will help your program grown. Debriefing sessions following an activity, written surveys, and focus groups are a few ways to gather their input.**

Logistics

> **Logistics. Every program is different. Think about what is important to you and them.**

Compensation

SPs should be aware of how they are being compensated.

Type of Employee and Benefits if Any

Parking

Schedule for Each Event (How Many Students to be Seen, Built in Breaks etc.)

Frequently Asked Questions

> **Frequently asked questions. You may save time if you compile questions that SPs often ask and place here**

Attestation

> **You will want to document that the SPs have read, understand and agree to follow the Policies and Procedures. You will want to do it when onboarding, any changes, and perhaps annually.**

I_____ have read, understand and agree to follow the Policies and Procedures outlined in this Standardized Patient Manual.

Signature: _____

Date: _____

Appendix 10.2 Template for SP Agreement

SP/GTA/MUTA Participation Agreement

I, _____, understand and agree to the following:

1. As a Standardized Patient (SP), Gynecological Teaching Associate (GTA), or MUTA (Male Urological Teaching Associate), I am a (*fill in category or employee i.e. temporary part-time.*)
2. As a (*fill in category*) employee, I understand my employment (*fill in what the termination policy. (i.e.…... is on an at-will basis and may be terminated at any time with or without cause and is not subject to grievance or appeal).*
3. I understand I (*am or am not eligible for benefits, paid holidays or paid time off (i.e. vacation, personal days or a cultural holiday).*
4. If an event is cancelled, I will be notified as soon as possible and I (*will or will not*) be paid for that work session.
5. I agree to abide with (*add name of parent organization if there is one and link to institutional policies and procedures*). I have read, understand and agree to abide by the following (*provide links to specific institutional policies and procedures that you want them to know about and agree to follow*)
6. I will maintain a working phone number and email.
7. I understand that I can decline an assignment offered to me.
8. I will be provided with training needed to fulfill the assignment I have been offered and accepted. This includes but is not limited to training to teach communication and interpersonal skills, history taking, physical exam/point of care ultrasound, use of patient centered electronic health record, presentation skills and for learner assessment which includes portrayal, providing verbal or written feedback, and accurate completion of assessment checklist.

9. In my capacity as an SP, GTA, or MUTA I understand that I may be interviewed and physically examined by students or health professionals in a manner similar to that which I might experience if I were an actual patient. If I agree to become a GTA or MUTA, this includes aspects of the physical examination that are normally part of a breast and pelvic exam (for women) and genital and rectal exam (for men).

10. In consideration of compensation I will receive for services as a SP, GTA, or MUTA, I irrevocably and without restriction grant to (f*ill in your program and parent institution*), its faculty and staff the right to record my name, appearance and voice and to use such for bona fide uses such as training and marketing and in the development and promulgation of educational materials (whether for profit or not) and for any use for educational purposes. If I am functioning in the GTA/MUTA role, any recording or use of name or appearance will be strictly voluntary and only occur after my consent is obtained.

11. I may be required to assess student or health professional performance by providing both qualitative (comments) and quantitative (scores) data. I understand that I have no right, title, or interest to such assessments or data and I hereby consent to the use of such assessments or data in any analyses for research purposes. I further understand that my name will not be associated with any such research. Any research that concerns my performance as a SP, GTA, or MUTA, however, will require my informed consent to do such and will be strictly voluntary.

12. The program (*does or does not*) guarantee daily or weekly minimum or maximum number of hours of work as an SP, GTA, or MUTA.

13. I understand that case materials and any information related to SP, GTA, or MUTA exercises are confidential and the property of the program. I will restrict any discussion concerning such to SP staff or other participating SP, GTA, or MUTA colleagues as may be related to my position as a SP, GTA or MUTA. In no event shall I disclose any information about the program's practices, clients, students, or an individual's or client's performance to any third party, including, but not limited to, through the use of social media. For purposes of the Family Education and Rights Privacy Act only ("FERPA"), I understand I am considered a school official with a legitimate educational interest with respect to access to students' education records.

14. I can stop the learner encounter at any time if I am concerned about my psychological and or physical safety

15. If I believe I incurred an injury or developed an illness that was directly related to my work, I must contact (f*ill in who and how*) and my SP supervisor immediately after the injury or illness, or if circumstances prevent me from immediately notifying I will provide notice as soon as circumstances permit.

16. I will conduct myself in an accordance with the Procedures and Policies and in an appropriate and professional manner at all times and will maintain standards including reliability, promptness, objectivity, flexibility and commitment to programs and needs.

17. All questions pertaining to the terms or conditions of this agreement or my rights as an employee shall be directed to (*fill in who and how)*

I hereby certify that I am at least 18 years old (or, if signing this on behalf of a minor, I hereby warrant I am at least 18 years old and have legal right to consent on behalf of such minor), have read this participation agreement, or it has been read to me, and that my signature constitutes acceptance of the all of the terms and conditions stated herein.

Print Name _____

Date _____

Signature _____

SP Program Representative _____

Appendix 10.3 Template for SP Model Agreement for Ultrasound

Standardized Patient Point of Care Ultrasound (POCUS) Model Consent

I_____, hereby consent to serve as a model for point of care ultrasound courses. In giving my consent, I acknowledge I have been advised as follows:

1. While there is no known adverse effects of diagnostic ultrasound, we try to limit the time you will be modeling.

2. The purpose of POCUS session is for students to learn. This is not a diagnostic ultrasound evaluation. If the faculty identify a possible finding, they will refer you to your primary care provider for follow up.

3. The faculty/student will put clear gel and an ultrasound probe on your abdomen, face, chest, neck, arms groin, and/or legs.

4. While some SPs agree to have pelvic or rectal or testicular ultrasound there is no requirement for you to participate.

5. You have the right to refuse any ultrasound examination or stop the session and withdraw consent for any reason and at any time.

6. You will alert the faculty/students immediately if you experience discomfort of any kind.

_____   _____
Standardized Patient   Standardized Patient Educator

_____
Date

Sample Vision/Mission Statements

Parry Center for Clinical Skills and Simulation University of South Dakota Sanford School of Medicine

Vision: Advance clinical skills, patient safety, healthcare effectiveness and communication through the use of interprofessional teamwork, innovative technology and immersive training methods.

Mission: Provide evidence-based simulation and clinical training opportunities to advance the translation of education and knowledge into clinical practice. The Center offers a safe and engaging learning environment that complements the existing educational curriculum for USD medical students, residents, health professions students and faculty. https://www.usd.edu/medicine/parry-center

Simulation at Penn Medicine

Vision: Improved Patient Care through Simulation Based Teaching and the Advancement of this Education Methodology Mission

Mission: Improve patient safety and clinical outcomes by integrating medical simulation based teaching methodologies into the educational curriculum for all students, residents, attending physicians, nurses and other ancillary health care staff at the University of Pennsylvania Health.

http://www.uphs.upenn.edu/simcenter/

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Professional Development of the SP Educator

11

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Abbreviations

AAMC	American Association of Medial Colleges
AMEE	Association for Medical Education in Europe
APMEC	Asia Pacific Medical Education Conference
ASPE	Association of Standardized Patient Educators
ASPiH	Association for Simulated Practice in Healthcare
CHSE	Certified Healthcare Simulation Educator
CHSE-A	Certified Healthcare Simulation Educator-Advanced
CHSOS	Certified Healthcare Simulation Operations Specialist
GEA	Group on Educational Affairs
IMSH	International Meeting on Simulation in Healthcare
INACSL	The International Nursing Association for Clinical Simulation and Learning.
IRB	Institutional Review Board
LCJR	Lasater Clinical Judgement Rubric
OSCE	Objective Structured Clinical Exam
OSTE	Objective Structured Teaching Exercise
PCL	Professional Learning Communities
RAPIDS	Rescuing a Patient in Deteriorating Situation
RCT	Randomized Controlled Trial
SESAM	Society in Europe for Simulation Applied to Medicine
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
SPN	The Simulated Patient Network
SPSS	Statistics Software Program
SSH	Society for Simulation in Healthcare
UK	United Kingdom
VSPN	Victorian Simulated Patient Network –

SP Educators (SPEs) engage in professional development to promote excellence in their own practices, within the community of practice, and among stakeholders. The role of SP Educators is an emerging profession, involving heterogeneous practices and no licensing process. The standards of professionalism key to the profession focuses on three principles: career development, scholarship, and leadership [1].

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Who Are Standardized Patient Educators and What Do They Do?

Several studies have looked at the Standardized Patient Educator, their role and responsibilities, and their backgrounds.

In 2009, Howley et al. conducted qualitative research using a structured interview with 61 programs affiliated with the Association of Standardized Patient Educators (ASPE). The information covered by the interview included:

1. Job title, experience, education level, demographics and job responsibilities
2. Year SP program established, number of staff, learners and type of activities
3. Program operations: number of SPs, case development process, methods of quality control, policies and procedures.
4. Facilities details
5. Recruitment and training methods

6. Program finances
7. Professional development needs of program

   In summary, they found

1. Most common use of SP methodology was assessment and learning
2. Students were across the continuum of medical education and all healthcare professions.
3. Most programs have between 51–75 SPs in their pool
4. SPE came from a diverse backgrounds and professions.
5. Most SPEs held a bachelor's degree and some had masters

They felt further research was needed to understand the optimal qualities for an SPE and best practices for case development and administration [2].

In 2016, the ASPE Grants and Research Committee sponsored a research project to better understand the role of the SPE [3]. A demographic survey, which was part of a larger practice analysis done by the Society of Simulation in Healthcare (SSH) in 2011 to profile the role of a "healthcare simulation educator" was adapted for this Institutional Review Board (IRB) exempt study. The survey was sent to SPE experts in the field to preview. Minor changes were made based on their feedback. The 15-question demographic survey was made available for 5 months (06/2016–10/2016) on Line Survey via the ASPE listserv and the SP Listserv. In order to get a global perspective, the link to the survey was sent to international leaders in SP methodology to list on their local networks. Demographic Questions are provided in Table 11.1.

Of the 1500 potential respondents, 233 individuals successfully completed the survey for a return rate of 16%. 81.1% of the respondents were from the US, with Western Europe, Canada and Australia making up the remaining

Table 11.1 Demographic questions

1. Recent experience as a SP educator
2. Years of experience in the SP field
3. Formal training in SP methodology
4. Primary professional background
5. Educational theory and learning background
6. Primary role
7. Percentage of time spent in various roles in SP education
8. Learner groups
9. % of time spent conducting SP activities in various settings
10. Location of SP program
11. Simulation modalities
12. Highest level of education
13. Number of full-time employees in SP program
14. Number of programs served by SP program
15. Geographic region of practice

18.9%. 98.7% of the respondents had worked as a SPE in the last 5 years. The SPEs had worked on average 10 years with a range of 0–43 years. 66% reported having some formal training in SP methodology. The top primary professional backgrounds were education, theater, nursing and administration. 14% of respondents listed other. Figure 11.1 shows the variation of professional backgrounds SPEs within ASPE vs those simulation educators within the Society for Simulation in Healthcare. The key differences are in theater and communication.

Although most held bachelor's degrees, most had no preparation in education theory. While most SPEs focused on standardized patient methodology, they also reported incorporating hybrid/mixed modality, mannequin- and virtual-environments-based simulation as seen in Fig. 11.2.

The survey revealed that the SPEs spent most of their time in administrative duties (44%) followed by education (38%). While the average program may only have three to six full-time employees, an SPE can be responsible for over 100 SPs.

In 2017, Pritchard et al. [4] interviewed 15 seasoned SPEs on their current practices to better understand the key programmatic elements needed to provide optimal learning standardized based learning experience. Interview topics included:

1. descriptions of current and previous roles as SPEs
2. how they developed their expertise
3. how they came to work in the field
4. what were the most important elements to developing and maintaining an effective program

Four strategies emerged although SPEs related a variety of methods for each strategy.

1. Creating an effective administrative structure, policies and procedures to manage program logistics. Include but are not limited to maintaining the physical space, equipment and supplies, creating and maintaining an up to date SP data base, reviewing application materials, selecting SPs for specific roles, collecting contracts and payroll, working with faculty and SPs to coordinate and set up different activities.
2. Creating a screening and selection process to match SPs to activity.
3. Preparing SPs for accurate role portrayal, providing feedback and completing assessment tools through different stages of preparation including "dress rehearsals" or "dry runs". Most SPEs reporting using some educational framework including but not limited to experiential learning
4. Providing a safe work environment for the SPS through pre-activity briefings and post activities debriefing/de-rolling.

Professional background

Simulation modalities

The authors hope this framework can inform novice educator seeking to build a high-quality SP program, enhance SP wellbeing and improve outcomes.

All of these studies demonstrate that SPEs are a diverse group of individuals and serve a variety of roles. The reason for the variance of SPEs roles and programs is related to local, institutional/funding models, discipline/professional and licensing requirements.

Given the varied backgrounds and roles, how does one learn how to become an SPE?

Career Development

At present, traditional academic paths for SPEs do not exist. Many SPEs were once SPs themselves. It is common for SPs to move into administrative positions of a simulation program. The early development and continuation of Standardized Patient Educators (SPE) professional learning communities (PLC) is at the heart of career development for SPEs. While brick and mortar schools and online programs

are emerging to offer certificates and Master of Science in medical and healthcare simulation, most of us learned and continue to learn on the job, with the help of mentors, conferences/courses, research on SP methodology and online communities. Stoll et al. [5] describe a PLC "as a group of people sharing and critically examining their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, and growth promoting way with the goal of enhancing their effectiveness as professionals for the learners' benefit." What better describes the SPE community?

Building Your Professional Learning Community

Professional simulation associations/societies Membership in a professional organization offers opportunities for novice SPEs to improve their knowledge, skills and behaviors by attending conferences, through networking, and on-line resources. Many professional organizations have career

resources and job boards only available to members. They can also provide insights on how to navigate through the profession and how it works. By attending conferences, one can learn from the leaders in SP education.

Conferences Several professional organizations have annual meetings and/or conferences. Attending annual meetings can provide validation, inspiration, and motivation for you to move forward in your career. Being removed from the day to day of the job, you can take time to reflect with SPEs who are interested in the same area as you, learn about and from one another, create joint projects and build and maintain your professional learning community. Consider joining a committee or two of interest. Committee membership is the quickest way to learn more about an area with which you are unfamiliar. For example, if you are interested in innovation and research, but have no experience, don't let that stop you. The SPE community is always welcoming and knows that today's novice is tomorrow expert. Before you know it, you will be presenting a poster or a workshop and considering a leadership role.

Networking This is especially important if you are the only SPE at your institution or in your region. Given the busy life of an SPE, finding time to keep up with latest advances in SP methodology can be daunting. Using online resources one can find other SPEs, adding variety to your network of friends in the industry, establishing a support system and creating professional relationships. Networking helps and supports us to reach our professional goals.

An important online resource that is hosted by the University of Washington is the SP-Trainer listserv. Many of us have availed ourselves of this on-line community as we were beginning our careers. Even after 20 years as an SPE, I still find it to be a valuable resource. This listserv is an online format for the discussion of education using Standardized Patient methodology and other types of simulations. Go to https://mailman13.u.washington.edu/mailman/listinfo/sp-trainer to subscribe.

There are professional organizations that support simulation and simulation based education.

1. **The Association of Standardized Patient Educators (ASPE)** is an international organization of Simulated Patient Educators. Formed in 2001, the organization focuses on human simulation. ASPE is the international organization of 600 simulation educators dedicated to:
   - Promoting best practices in the application of SP methodology for education, assessment and research
   - Fostering the dissemination of research and scholarship in the field of SP methodology

- Advancing the professional knowledge and skills of its members
- Transforming professional performance through the power of human interaction.

    The organization includes SPEs from many healthcare fields such as; physical therapy, social work, dentistry, nursing, medicine, pharmacy, veterinary medicine, and other professions such as; education, legal, security and clergy. The association offers annual conferences, job board, membership listserv and the Virtual Learning Center, including:
- Live webinars conducted by international experts
- Archived webinars
- Video/recordings, articles, toolkits, how-to-guides
- Web-based newsletters
- Archived newsletters
- Mentorship programs for personal assistance
- A link to the SP trainer listserv
- Access to Konsiderate, a platform for medical simulation service and product reviews
- Access to a web-based searchable member directory of SPEs worldwide. https://www.aspeducators.org/

2. **The Society for Simulation in Healthcare's (SSH)** purpose is to serve a global community of practice enhancing the quality of healthcare. The mission of SSH is to
   - Serves our members by fostering education, professional development, and the advancement of research and innovation
   - Promotes the profession of healthcare simulation through standards and ethics
   - Champions healthcare simulation through advocating, sharing, facilitating, and collaborating
     SSH supports educators, healthcare providers, researchers, administrators, curriculum developers, technologists, and policy makers keep up to date with developments in the rapidly changing world of simulation-based education in healthcare. SSH's activities include the annual International Meeting on Simulation in Healthcare (IMSH), publications including Simulation in Healthcare, special interest and affinity groups, accreditation of simulation programs, and certification of simulation professionals. In addition to the annual meeting, IMSH, members communicate with one another throughout the year. The discussion boards and resource libraries found in our online collaboration site, Sim Connect, facilitates online sharing. http://www.ssih.org/

3. **The International Nursing Association for Clinical Simulation and Learning.** INACSL's mission is to advance the science of healthcare simulation. Their mission/vision is to advance the science of healthcare simulation and to be the global leader in transforming practice to improve patient safety through excellence in healthcare simulation.

INACSL's goals are:
- To provide innovative professional development to members and non-members regionally, nationally, and globally.
- To provide expand networking/collaboration opportunities to extend the membership and reach of the organization.
- To advance the science of healthcare simulation for academe, practice, industry, and other relevant stakeholders.
- To develop, review and update policies and procedures to support the work of the organization. https://www.inacsl.org/

4. **Sim-One** connects the simulation community, facilities, and resources across Canada and beyond. They advocate for and advance simulated learning in health professions education for the benefit of patient care and safety. They offer advanced educational training and simulationist certification, including the Keystones of Healthcare Simulation and Mastering the Artistic Side of Clinical Simulation (MASCS) certificate programs. They host a number of free, online services that are open to simulationists and health professionals across the globe. This includes the scenario exchange for peer-reviewed simulation scenarios and tools, a marketplace for the buying and selling of gently-used simulation equipment and more. They host Canada's premier healthcare simulation events, the annual SIM Expo and the National Forum on Simulation for Quality and Safety. Their vision/mission is to ensure exceptional patient care and outcomes through simulation and by advocating and advancing simulation to improve healthcare education, patient safety, and quality improvement; and connect all healthcare and human service professions, disciplines, and care delivery sectors. https://www.sim-one.ca/

5. **The Association for Simulated Practice in Healthcare (ASPiH)** is an association whose membership is comprised healthcare, education and patient safety backgrounds including researchers, learning technologists, workforce development or education managers, administrators, and healthcare staff and students. The membership bridges undergraduate and pre- registration education as well as postgraduate and post registration training and on-going continuing professional development for all of the health and social care workforce. The association was initially organized in the UK and Ireland and is now a global organization. They created the Standards for Simulation Based Education to combine relevant best practices and published evidence in simulation-based education for all healthcare professionals with consideration of a number of existing quality assurance processes currently in use across the UK and around the world. ASPiH providing an accreditation process for individu-

als, program and organizations to demonstrate that they are delivering high quality simulation-based education that will benefit patient care in clinical practice. https://aspih.org.uk/

The current aims of the Association are to:
- provide an effective communication network for those involved in simulation and technology enhanced learning across the UK and beyond
- provide quality exemplars of best practice in the application of simulated practice to education, training, assessment and research in healthcare
- support the expansion and uptake of simulated practice by establishing key benefits and evidence of impact linking simulated practice with improvements in patient safety and quality of care
- develop and share key operational and strategic resources for members drawn from experience within the association and from links with relevant educational bodies nationally and internationally
- encourage and support scholarly development and recognition of members through wider dissemination of innovative practice at scientific meetings and publications
- become the "go to" independent organization for those looking for expertise, advice and information about healthcare simulation and technology enhanced learning

6. **The Society for Simulation in Europe (SESAM)** was formed 20 years ago in Copenhagen. The purpose of SESAM is encourage and support the use of simulation in health care for the purpose of training and research through the development and application of simulation in education, research and quality management in medicine and health care, facilitation, exchange and improvement of the technology and knowledge throughout Europe and the establishment of combined research facilities. SESAM hosts an annual conference and edits and publishes the journal *Advances in Simulation*. They provide access to a shared educational resource, and online networking. They offer accreditation to a program using a broad variety of simulation modalities. These can be simulation centers with dedicated space, mobile units that function completely 'out-of-the box', mannequin-based facilities, or departments relying on standardized patient (SP) methodology. https://www.sesam-web.org/

7. **The Simulated Patient Network (SPN)** (previously, *Victorian Simulated Patient Network – VSPN*) provides a professional network, website and e-learning resources for individuals involved in the recruitment, training and quality assurance of SPs to work in all areas and at all levels of health professional training and professional development. http://www.simulated-patientnetwork.org/

Advance Your Knowledge and Career

Many healthcare schools and institutions offer instructor courses and these offers are increasing in numbers. Here is a selection of SPE Instructor courses.

1. **Southern Illinois University School of Medicine** conducts a week long workshop for SPEs "Training and Using Standardized Patients for Teaching and Assessment" This workshop is designed to teach participants to recruit, train, and supervise the performance of SPs as well as to develop cases and assessment materials for use in both teaching and assessment. At the conclusion of this activity, participants will be able to:
   - Describe the basics of SP program development and management (recruitment, casting, supervision and personnel administration).
   - Discuss issues involved in using SPs for assessment (administration, curricular impact, resource planning, and psychometrics).
   - Discuss issues involved in using SP methodology for teaching (objectives, integration, case selection, delivery options, logistics, feedback).
   - Develop training materials and use them effectively.
   - Develop checklists and other examination materials for use with SPs.
   - Practice SP training principles and techniques. This workshop is a good introcution for novice SPEs. http://www.siumed.edu/oec/sp/events/training-and-using-standardized-patients-teaching-and-assessment.html

2. **The University of Illinois, College of Medicine** offers a one-week intensive "Professional Development and Certificate Programs for Standardized Patient Educators". Here you will learn to create a high quality standardized-patient based educational programs to enhance health professions education. Designed for simulation educators in the health professions:
   - Directors and staff of simulation and standardized patient (SP) centers
   - Faculty who wish to leverage SPs to enhance their educational programs
   - Intensive sessions focusing on key topics in SP-based education
   - Small class sizes, highly interactive, abundant hands-on practice. https://chicago.medicine.uic.edu/departments/academic-departments/medical-education/dme-educational-programs/certificate-programs/standardized-patient-educator/

3. **University of Maastricht School of Health Professions Education (SHE)** conducts a 3 day long "Advanced Simulated Patient Course" every 2 years. Basic overview of course covers SP training techniques, selecting and building a case, check list frameworks, training SPs in portrayal, verbal/written feedback and assessment tool completion. They cover quality assurances for portrayal, checklist, and feedback accuracy. The last day covers research with SP methodology. https://she.mumc.maastrichtuniversity.nl/programme-details-simulated-standardized-patients-course

4. **The Society for Simulation in Healthcare** developed a certification known as Certified Healthcare Simulation Educator (CHSE) and Certified Healthcare Simulation Educator- Advanced (CHSE-A). The goal of the certification is to promote competence, recognition and development of SPEs. Those involved with simulations in healthcare education or those who administer/oversee simulations in healthcare education should consider seeking a CHSE certification. The CHSE certification is intended for SPE with at least 2 years of experience. The CHSE-A is an advanced certification of CHSE and requires 5 years of continuous use of simulation in healthcare education, research or administration. Those with this certification must be CHSE certified and can go on to serve as mentors. https://www.ssih.org/Credentialing/Certification

5. **Penn State College of Medicine** offers a certificate course entitled "Teaching with Simulation: An Instructor Certificate Course." This is a week-long course with both didactic and experiential learning. This course includes didactic and experiential learning, practice, and reflective feedback, simulation fundamentals, philosophy and scope.
   - Simulation and education theory
   - Curriculum design
   - Feedback and coaching in skills acquisition
   - Design, implementation and debriefing simulations,
   - Creating high-level learning outcomes, objectives and activities for simulation
   - Team training and how to create scenarios for learning
   - Using standardized patient methodology
   - Combining different types of simulation modalities
   - Incorporating interprofessional education into simulation
   - Simulation theory and education research
   - Evaluating an educational session
   - Continued faculty development
   - The Objective Structured Clinical Exam (OSCE) and Objective Structured Teaching Exercise (OSTE) experience https://ce.med.psu.edu/teaching-with-simulation/

6. **Drexel University College of Medicine:** Offers a part time two-year program offering advance training in simulation teaching, curriculum design, and fundamentals of simulation research in an interprofessional setting. The program is a blended curriculum of online

course work with 3 weeks on campus week long immersive simulation sessions. Through this program you will be able to:

- Use simulation as a training and educational tool for others
- Empower others to transfer what they've learned through training scenarios to the workplace to improve services and increase patient safety
- Evaluate the effectiveness of your teaching in simulation
- Behave and communicate more effectively as part of a team, particularly in a crisis https://drexel.edu/medicine/academics/graduate-school/medical-and-healthcare-simulation/

Once you have started in the role of SPE, how do you grow within the field? In the next section we will look at how to prepare yourself for a leadership role.

Leadership

The field of SP Education embraces a broad and inclusive model of leadership, one that encompasses promotion and development of the methodology, the practice, your peers, and yourself. While it is not within the scope of this chapter to present a discussion of general leadership skills and techniques, the literature on this topic is considerable and worth seeking out in your own career development efforts. Here, the focus will be on the specific aspects of leadership likely to play significant roles over the full span of an SP Educator's career.

When we think of leaders in the profession, it is tempting to think of the mid-to-late career professionals, with considerable experience and the august reputations to match, who have the knowledge and context to offer direction to the development of SP methodology. While this certainly defines many leaders, this view may prevent SPEs at all levels of experience from developing their full potential. In addition, such a view may impede the development of the profession itself by restricting access to the full diversity of participation across the field. A significant component of "best practice" throughout your career as an SPE is to continuously explore and use your own leadership potential and to seek out and nurture it in others [6].

If we reframe our definition of a leader to encompass the concept of "servant leadership", it allows us to take a wider view of the possible benefits of participation at all stages and ranks of a career:

The servant-leader is servant first… It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead [7].

When leadership is viewed through this lens, even the newest SPE can find a place to serve the profession and will discover several career advancement and job satisfaction reasons for seeking these opportunities out. You may find leadership opportunities in more traditional service pathways (committee membership, heading a presentation group at a conference, serving as an association officer). You may also bring your own creativity and skills to bear in the field, sparking the development of as-yet-unknown forms of service and leadership at your own institution and within the larger simulation profession.

Participating in leadership activities may provide benefits:

- becoming involved in an active peer network
- sharing support and guidance
- engaging in a mentoring relationship

Finally, there is a demonstrated "return on investment" in fostering leadership development. There are clear benefits to SPEs, programs, and institutions from participation in professional societies, peer networks, and research collaborations. Gains in communication skills, teamwork ability, and breadth of context, as well as personal and professional resiliency, are dividends of the close ties developed during such affiliation.

Getting Started

SP education is both a young field, having coalesced into a profession primarily during the 1990s and a creative endeavor, and as such has provided many SPEs robust opportunities to develop inventive forms of participation in leadership. The formation of the Association of Standardized Patient Educators (ASPE) is a salient example. In 2001, several SPEs joined together to create the new professional society and many of the resources called upon during this time were brought to the group by SPEs combining their experience with SP methodology with their outside interests and skills. For instance, several SPEs with backgrounds in communication, computers, and writing led the development of the first communications committee and newsletter, and anyone with experience planning events found an appreciative home for their skills as ASPE launched the first annual conference.

As ASPE has become a more mature organization, the opportunities for participation in formal leadership (board of directors, officers, committee service, special interest groups) have become more structured. This maturation can be seen in other simulation associations of similar age (e.g., Society for Simulation in Healthcare, International Nursing Association for Clinical Simulation and Learning) and may

give you the impression that the chances to "lead" within the profession are restricted to these formal roles. However, past experience would indicate that there will be exponentially more opportunities awaiting simulation professionals that simply cannot currently be forecast, as the field integrates diverse new members and reacts to changes in education, clinical care, political climate, and technology. In her SimOps 2018 plenary speech (speaking about both operations specifically and simulation generally), Jamie Stiner, CHSOS, Simulation Operation Specialist, University of Texas Southwestern Medical Center, stated: "Most of us got into the profession by chance and have found a passion for it.... Our uniqueness, our creativity is what makes this profession exciting to be part of and to accelerate forward" [8]. The most successful emerging leaders in simulation keep a careful eye out to find missing or underdeveloped arenas where they can serve the field, and do not wait to be asked before stepping forward to seek and offer solutions. SPEs at all career stages, but particularly those in the first stages of their careers, are encouraged to think broadly, creatively, and boldly about their vision for their work and our collective professional future.

How might you put the above principles into practice? While thinking expansively and creatively is key to leveraging your own unique skills and abilities as a leader within the realm of simulation education, there are several paths on which to focus.

Initially, seek to develop and demonstrate leadership skills within your own SP program. Even as a new SPE you will be tasked with motivating SPs and other staff to their best efforts, and will need to weave vision, values, and mission into the daily work of a busy SP program. In conversation with Robert MacAulay, Director, Standardized Patient Program, University of California San Diego, School of Medicine in April 2019, he took care to tie this concept into that of the larger "servant leader" perspective – advocating that SPEs shouldn't look to serve outside their programs until they are sure all stakeholders are being well-served internally. Because providing this level of stakeholder support requires program promotion and advocacy, collection and presentation of data, teamwork across divisions, communication skills, and managerial acumen, significant leadership ability can be developed during your daily work. This work environment is also likely to offer you frequent feedback from supervisors, peers, clients, and subordinates, and to allow for needed practice and self-reflection.

Seeking additional opportunity to lead within the current institution, network, or region is an excellent way to begin to build a reputation and set of skills related to presentations and speaking, advocacy of human simulation, and teamwork with others in related fields. Even during the early stages of your career, you will often be the best local expert on the methodology and able to influence the perception of

the value of SP-based activities (and the adoption of best practices) more widely than you may have initially anticipated. For examples, you might seek to join a curriculum review committee, to participate in an interactive classroom design task force, or offer to present on simulation topics at various informal roundtables, if working in an academic environment. In hospitals and simulation centers, you can volunteer to participate in simulation preparation, deployment, and debriefing in a variety of contexts. Even being willing to serve as a demonstration SP or a scripted embedded participant yourself can be an excellent way to share the benefits of the methodology, to lead by example, and to benefit the larger institutional community. These strategies can be expanded upon by offering others the opportunity to come and observe your SP program at work, or by attending sessions at their site and sharing best practices as appropriate. Job or program-shadowing and expert site visits are a common way for new SPEs to get new programs launched effectively. Educators and institutions that have encouraged and made these visits have expanded their reputation and scope of influence within the larger simulation community.

Leadership in Professional Associations

"Professional societies form a living matrix where minds meet and engage and where trusted colleagues pool their knowledge, helping each other to glimpse and plumb larger forces at work, to see connections among events, and to imagine the future" [9, p 91]. Active participation in professional societies and conferences can also positively affect your career development. In addition to the obvious scholarly benefits of sharing research or innovative practices at regional and international meetings of educators, a successful presentation will both develop and demonstrate your competence in the topics covered. Again, thinking creatively, consider attending and presenting your work not only at simulation conferences but also at adjacent meetings - general education, technology/modeling and clinical practice conferences are all good places to start, but should not be considered a limit. If you find an intersection between your own interests, simulation methodology, and a third field, you may also find at that intersection both an eager audience and a fruitful place to grow as both an expert and a leader.

Professional societies also offer you the opportunity to serve in a traditional leadership role, such as that of elected board officer, committee chair, or task-force lead. It is common for new members of organizations to find the path to such service "cloaked in secrecy" due to "unclear policies and practices", but this perception is not necessarily borne out by the actual experiences of association members [10]. Most academic professional associations are entirely or partially volunteer-based, so a member who is willing to iden-

tify themselves to current leadership as ready to "do the scut work" is typically welcomed. By demonstrating reliability, competence, and enthusiasm in lower level opportunities (e.g., working group participation, volunteering as a facilitator/presenter assistant at conferences, being willing to staff the information table at an event), you are likely to be offered several additional opportunities to both serve and lead. If you combine willingness to assist with a clear assessment of where best to "jump in", you will find several options to match your professional interests [11]. This service also leads to opportunities to share those interests with leaders, mentors, and admired peers. The so-called "elevator pitch" (a ~30 second summary of an interest area) can be put to good use at conferences – many a presentation collaboration or committee appointment has been secured during a ride between floors or a chat with a workshop table-mate. It may be necessary to speak up several times – an unanswered email or suggestion offered during a committee meeting should not be taken as a personal rejection but instead seen as likely buried in the daily tasks of those currently serving in leadership positions. In correspondence, Tamara Owens, PhD., Director of the Clinical Skills and Simulation Centers, Howard University Health Sciences, and past ASPE President, had this advice for new SPE looking for ways to participate:

> My advice to a new SPE is be receptive to the process... Invest in yourself and invest in the organization and both will benefit. Give back to the organization by joining a committee to keep the organization moving forward. Understand the organization. Become the organization's representative at your home school. When the time is right you will have equipped yourself to be a leader to take the organization to the next level.

The Role of Mentoring in the Field of Simulation

While it is important to look for entries to service when beginning a membership with a professional association, it is possible to toil too long in obscurity, and it may take more than hard work and a cheerful spirit to move to the next levels of leadership. You may need a champion, a coach, a cheering section, and some timely feedback. Consider the benefit of mentoring to the development of SPEs as leaders. The traditional definition of a mentor is typically someone who is more experienced, and frequently, located at the same institution so that a formal relationship directly benefiting the work done at that institution is developed [12]. During our correspondence, both Robert McCauley and Tamara Owens spoke at length about the positive impact of such "primary" mentors on their careers, especially in helping to identify areas of potential growth in the early years. Since our field is comprised of educators with diverse backgrounds,

you may need to seek secondary and tertiary mentors outside the immediate workplace. Extended mentors come from the "rich network of more distal yet caring supportive training relationships" [13] and can include program peers, role models, research teams, friends made at meetings and conferences, and dedicated online communities. SPEs can serve as informal mentors frequently throughout their careers and receive such mentoring from peers in return. A traditional mentoring relationship has important specific benefits such as visibility within an institution, sponsorship for opportunity, coaching, and counseling. The "mutuality" of an extended mentoring network provides several unique benefits:

- share concerns
- find support
- receive feedback
- seek solutions
- collaborate in projects and presentations
- engage in research
- influence policy-making

Many of these relationships persist over the length of a career and providing leadership development and significantly increase emotional engagement in the profession [14]. For many SPEs, an extended mentoring network has proved crucial for professional growth.

Considerations for the Mid and Late-Career Educator

Leadership development remains essential through all stages of a career in SP education. As healthcare simulation is still a growing field, the primary passage of information and best practice has been through professionals working together. How might mid and late-career SPEs best serve in mentoring and collaborative relationships? Just as at the beginning of your career you might not recognize early opportunities for leadership, when approaching the "second half" of your career you may not notice the chance to appropriately pivot your leadership – either by reaching out more broadly in the field to share expertise (e.g., expanding from simulation advocacy to general healthcare advocacy organizations), by using your influence to promote research and best practices widely, or by offering formal or casual mentoring to others. Again, a shift from thinking of leadership as something to be earned or awarded, to a sense of leadership as "service", can help to clarify. Experienced SPEs have much to offer to the field and the community, and should consider involvement in leadership, organizational and professional development, networking, and mentoring throughout their careers.

SPEs who currently serve in formal leadership roles (such as committee and SIG chairs, conference planners, and board directors), must be cognizant of the vulnerability often felt by those seeking to join an established group such as new SPEs or educators with experience in the field but less time in professional societies. When you serve as a leader, it is critical to take time to respond to queries about joining committees or running for office, even when (or most especially when) there isn't currently a suitable opening. Share feedback about how SPEs can become eligible to participate at the level of their interest, and if there is another opportunity elsewhere, offer to introduce and support their involvement [15].

As a leader in a formal role you may find yourself in need of new members for a committee or task force and unsure how to find the right candidates. Again, this is where a strong network of mentor and peer relationships, built on your participation in conferences, societies, and online forums can help. Take the time to contact the first-time presenter who impressed you at the last ASPE meeting, or that member of an email list you may never have met in person, but who always takes the time to reply to listserv requests. Get in touch with SPEs working in other parts of the world or in simulation environments not currently well represented in your committees. It is important to stay "tuned in" to new members of the field, and to recognize and promote their unique contributions.

In correspondence, Tamara Owens encouraged all mid-career SPEs to practice leadership both broadly and deeply by serving at their home institutions and internationally through role-modeling, mentoring, publishing, and presenting. She also spoke to the particular need to keep late-career and retired SPEs involved in the field:

> Mentoring the next generation and advising the board should be the focus. There should be time set aside for Wisdom Circles in which they could engage with the next generation.

As SP methodology moves confidently into the next 50 years, preserving the knowledge and guidance of those leaders who have gone before will be of utmost importance, and it is incumbent on all SPEs to reach out, across, up, and down the experience levels to preserve the roots of the methodology while also fostering its new growth.

Making Leadership a Priority

For most SPEs, the opportunity to participate fully in professional societies and other forms of leadership and career development will depend on support from the home institution, whether by funding travel to conferences, promoting SPE involvement in various committees and task forces, or by allowing time for leadership training, mentoring, and service. While many SPEs find that some of these activities are explicitly written into their job descriptions, you may have to make a case for the "return on investment" for various forms of participation to supervisors and department heads.

When seeking support for leadership development activities, it is helpful to clearly describe the direct benefits to the institution. Encouraging staff to participate in traditional forms of leadership training, such as certificate programs, job-shadowing, coaching, and self-directed study/reflection can have an immediate positive impact on team effectiveness and will extend the number of emerging leaders in the "pipeline" throughout an institution, increasing organizational resilience [13, 14].

Additionally, collaboration and leadership outside of a primary team functions as a form of developmental job training of the type not as easily obtained "in-house". In a discussion on the benefits of professional societies and leadership development, C. Donald Combs, Ph.D., Vice President and Dean, School of Health Professions, Eastern Virginia Medical School shared his thoughts on the type of crucial skills that can only be developed when you engage with a wider field:

> Communication within an organization is obviously important. In a networked, collaborative era where the challenges often exceed the resources that a single institution can commit, communication with outsiders is also important, indeed usually as important as communication internally. Communication with outsiders is easier when you have experience with the way other organizations set priorities and work to achieve them. That experience often allows you to communicate in terms that others can really understand. That contextual communication requires exposure to other organizations and settings.

In addition to improved communication and interpersonal interaction, participation in the leadership of professional associations and other multi-institutional collaborations may also allow SPEs to develop a wide variety of other skills, including budgeting, event planning, publishing, organization, and marketing that can then be utilized in their daily work [10].

Donald Combs encouraged SPEs to be persistent and flexible while working to secure funding and release time to participate in outside activities:

> No one gets their preferred way forward all the time and that is actually a good thing. The key is to keep pushing when opportunities arise and take the long view...most change is incremental, a result of perseverance--two steps forward, one step back is still forward!

While institutional support is important, the internal motivation to engage in your own leadership development is critical to your success. It can seem overwhelming to consider adding "networking" time into a busy work schedule, but do not undervalue the potential of these relationships throughout your work. As Tamara Owens cautioned: "The process starts now. There will never be the perfect time".

Even when SPEs are encouraged to assume leadership roles in organizations, collaborative research, or peer mentoring as part of their formal duties, it is inevitable that these tasks will also require personal time and commitment.

Happily, there is evidence that participation in an extended network of mentors, peers, and role-models as part of one's career improves an SPE's ability to "bounce back" in a busy, high-stress environment. Professional societies, online forums, and scholarly collaborations allow access to a rich network of peers who understand the unique challenges of SP Methodology and who may serve as mentors, sounding boards, and sympathetic listeners [17].

In her dissertation, Holly A. Gerzina, PhD, MEd, CHSE, Executive Director, Simulation, Standardized Patients, and Interprofessional Education Services, Northeast Ohio Medical University, studied the effect of participation in ASPE on resilience of SPEs and found a significant positive effect:

> ...Findings supported that ASPE could serve members and enhance resilience in a number of ways including enhancing engagement via connection to members of a common professional society and by providing a dynamic vibrant community to network, reflect, and support one another through the natural challenges of professional work [16].

Holly Gerzina followed up in conversation: "In that sense, sending someone to a conference once a year could be seen as providing a 'booster shot' for resilience." Similarly, you might find that a phone call to a colleague to follow up on their comments during a committee meeting, an email list exchange about process improvement, or a check-in with a mentor can add to your own feeling of meaning and connection in your work. Participation in the variety of leadership opportunities available in SP methodology, be it formal service within a professional association, informal participation in peer networking, or any of the options in between, is likely to bring satisfaction well beyond the initial investment of time and should be a vital part of the SPE career path.

In addition to the day to day operations, SPEs play an essential role in assessing the outcomes of standards and new applications of SP methodology through scholarly inquiry. Whether you are staff or faculty, opportunities for scholarship are extensive. Hundreds of new publications describing SPs in teaching or assessment become available each year, with new disciplines both within and outside healthcare adapting this methodology. The next section will provide you with a framework for scholarly inquiry related to SP methodology. We will provide a guide to turn your everyday work into educational scholarship.

Educational Scholarship

Curiosity is the key to scholarship. So much of what is done in day to day work with SPs, while essential to the educational mission, can feel very routine. Have you ever found yourself asking "Why do we train this way?" "Why did the learner do that?" "Why is it so difficult to recruit for this case?" … Questioning each part of an SP activity is the beginning of forming scholarly inquiries. Dividing any activity into three sections can help: What was done to create/prepare the activity, what happened during the activity, and what were the outcomes. Each step is rich with processes that may benefit from a more in-depth look. Figure 11.1 provides basics of an SP activity that can guide thoughtful, scholarly questions. While this may seem oversimplified, understanding what does (or does not) work when using SP Methodology in an educational setting is imperative to continue to develop evidence-based practice guidelines and to advance our profession.

Several excellent papers have been written to guide scholarly work, and the principles outlined are directly applicable to work with SPs. An often-cited framework for scholarly work in education comes from Glassick, Huber, and Maeroff [17].

A Framework for Scholarly/Scholarship Work

1. Clear Goals: state basic purpose of work, define realistic and achievable objectives.
2. Adequate Preparation: show an understanding of existing scholarship in this area, share skill set and resources needed to complete project
3. Appropriate Methods: choose methods that match the goals
4. Significant Results: share results
5. Effective Presentation: use effective organization and forums when presenting work
6. Reflective Critique: Provide an evaluation of you own work, comment on limitations and next steps.

This framework is not intended solely to guide research, it should underlie the approach to all educational activities. If an activity is developed using a scholarly approach, not only will the credibility of the activity be optimized, but the potential for scholarship from the activity is enhanced.

Considering educational scholarship – what does it take? The remainder of this chapter will focus on a practical application of the above criteria – from developing a scholarly query to the product of educational scholarship. To become a piece of scholarship work needs to meet three basic criteria: it needs to be made public, it should have undergone peer review, and it needs to be presented in a way that others can build upon it. While many people immediately think of a journal publication as the example of educational scholarship, there are many other opportunities to disseminate work and contribute to our growing profession. Ultimately, the goal is to share ideas and practical applications of SP methodology with others in our community.

Clear Goals

Goals of the activity can be framed in the global sense (e.g.: what is the overall purpose of this activity?) or can be addressed at a very granular level (e.g.: what is the goal for

the debriefing of the SPs?). Goals require a clear framing of the activity in aggregate and of each step. Setting the goals will generate questions, and these questions can lead to scholarship. Writing the question to frame your project is difficult, and typically requires multiple edits. Start with the area that most interests you in your work. If you are not curious or passionate about a topic, spending time exploring it will be draining. Start by trying to articulate what you want to study. In the beginning you are likely to ask a question that is too broad or too complex to answer. Continue to ask "to what end" or "why" until you are able to frame the question succinctly. Your ultimate goal is to be able to communicate the question in one to two sentences and tell others what you are studying in a short, focused statement.

> *Example*
> Years ago, a colleague of mine became interested in the topic of empathy. As he was trying to frame a question, he told me "I am going to study empathy". As we further worked on framing his question, it became evident that his interest in the topic came from reviewing video-encounters of students interacting with SPs who presented with pain. We continued to ask the "what" and "why" questions until we refined his query to "do students respond to patients' non-verbal cues of acute pain with a purposeful statement or action". He looked specifically at times patients transferred from the chair to the examination table (with the SPs trained to demonstrate pain through slow movement and grimacing) and observed for statements or actions by the student that demonstrated an awareness and concern for the patient's discomfort. While this question may seem almost trivial, studying this took a few months and resulted in several additional questions for future work. His initial work resulted in a poster presentation accepted for a research forum.

You may find it useful to think about what you want to report from your study while you are creating the question and considering the methods. Think about tables of data that would be valuable to report. Then think about how you are planning to collect and analyze the data. For example: if the length of time a person has been working as an SP, or a learner's level of training might be important in your analysis, be certain to collect that information up front.

Adequate Preparation

It is essential to be aware of existing practice standards or prior work that describes activities or studies similar to what you are interested in doing. This requires becoming familiar with resources describing the application of SP methodology and applying these principles to your work. Several books have been published providing guidelines for working with SPs, and the literature is rich with descriptions of innovative applications of SP methodology. Reaching out to colleagues through direct contact or a listserv can also provide insight into how to structure an activity, or—as importantly—how *not* to do something, though sharing lessons learned. Reading the literature is key to framing questions and is the foundation for educational scholarship. Learning how to perform an effective data-based search is key. Because literature describing SP methodology is widespread, using several search strategies to explore your interests is imperative. Medline, CINAHL, Web of Science, and Google Scholar are great resources to begin your search. If you are not experienced in searching the literature, or you want to optimize your search, reach out to your reference librarian. Reference librarians are exceptionally knowledgeable about where to find information or specific search terms and can guide you to select materials from credible sources. From your area of interest identify keywords that focus your work. You may find it useful to write out your question and highlight the main words. Using the above example, we began exploring the literature with the search term "simulated patient", "standardized patient" and "patient simulation". We then narrowed the narrowed the question by combining that outcome with the term "empathy". The initial list of articles was easy to scan and resulted in a few key articles to ground the work.

Appropriate Methods

Much of the work that we do on a day to day basis generates information that can serve as the grounds for scholarly inquiry. Identifying which information, and how it needs to be captured and organized, is needed early on. Examples of questions specific to the SP process are highlighted in Table 11.2. Yet there are countless unanswered questions that arise during activities employing SPs. For SPEs without a

Table 11.2 Three steps of SP activities

Preparation
Why is this being done?
What are the learning objectives; how were they created?
Who are the learners (is this a unique population)?
How have the training materials and or checklists been created?
Any special training techniques being applied?
Is the setting for this activity unusual?
Was SP recruitment done in a new way?
Were a special population of people employed?
Activity
Is there something unique about the set or flow of the activity?
What is needed to ensure that SPs have the appropriate resources (time/equipment) to optimally perform their job
Are the leaners fully engaged in this activity- if no, were there barriers, if yes what made it work?
Outcomes
What are the debriefing process for the learners, the SPs and the SP center staff?
Were the learning activities met?
How was student performance assessed?
Were there any unanticipated outcomes?
What was the impact of the activity on the SPs?

research background, mentoring for this step is key. It is disheartening to complete an activity and recognize retrospectively that the processes you should have been using were not followed. Sometimes it is as simple as ensuring that audio or video-recordings of encounters will be available after the session to review. At other times, copies of the checklist used in the activity, or the addition of questions to an existing checklist, may be needed to address your question. If a debriefing session will provide needed information for your study, capturing information in a systematic way during the discussion is essential. Additional methods may include focus groups or surveys. The steps for each process must be outlined and adhered to during the study.

What Type of Research Methods Suits You?

Quantitative Methods

Quantitative methods are typically used to measure how much or how frequently a phenomenon occurs. Quantitative methods gather numeric data from a large number of participants to measure outcomes and to directly address the research question which starts with a null hypothesis (a general statement that there is no relationship among the variables).

Example
Andrea and Kotowski [18] thought that SP methodology was an effective teaching method to increase first semester baccalaureate undergraduate nursing students' confidence, communication skills and clinical judgment to obtain a patient's health history. Three cohort groups were chosen for the study for a total of 80 students. The researcher chose a previously validated instrument the Lasater Clinical Judgement Rubric (LCJR). The LCJR was chosen as it incorporates communication and reflection that lead to self-confidence which all lead to improved clinical judgement. The instrument was administered at three points during the course - baseline, after 12 hours of clinical experience with actual patients and 1 week after working with SPs presenting three scenarios during week nine. The data was analyzed using a statistics software program (SPSS). A one-way repeated analysis of variance conducted to evaluate the null hypothesis which stated there would be no change in the students' total score across the three points. Based on the results, the null hypothesis was rejected as the data analysis showed a significant increase in scores over time (Wilk's lambda = 0.67, $F_{(2, 76)}$ = 19.15, $p < .01$) indicating that interacting with the SPs increased the participants' level of confidence, communication skills and clinical judgement when performing a health history [18].

Qualitative Methods

Qualitative methods are typically used to describe why and how a phenomenon occurs. Qualitative research seeks to understand the motivations, attitudes or perceptions of study participants. Focus groups, or one-to-one interviews using a structured or semi structured interview guide, and participant observation can be used for data collection.

Example
Block et al. [19] were interested in the nature of relationship building, feedback and continuity among all stakeholders (students, faculty and SPs). Stakeholders participated in a longitudinal SP experience which mimicked clinical practice by having learners interact with the same SP persona "Larry" or "Linda" over time. In this program, students encountered these different "patients" six times during the first year of medical school. During the second year of medical school, fifteen students, eight faculty and ten SPs were invited to participate in separate focus groups. A guide for focus group questions was developed for each group. Researchers analyzed their data to look for themes within each group and across groups. They found similar and divergent perspectives among stakeholders. Importantly, they found the SP perspective to be important and recommended inclusion of the SP perspective in further studies [19].

Mixed Methods

Mixed methods combine quantitative and qualitative research methods. The mixed methods design is appropriate when the qualitative data complements the quantitative findings.

Example
Ignacio et al. [20] were interested in (1) comparing nursing students level of stress by measuring salivary alpha-amylase levels and level of performance by using a Rescuing a Patient in Deteriorating Situation (RAPIDS) rating tool managing an SP scenario vs a high fidelity mannequin and (2) to explore their perspectives of each approach in preparation for clinical placement. They designed a mixed methods study which included a randomized controlled trial (RCT) with a pre- and post-test design for the simulation and qualitative focus groups to understand nursing students' perceptions. The RCT enabled the researchers to determine which group had higher stress levels and higher performance scores using objective measures. The focus groups provided more subjective data by exploring students' insights on the two modalities to prepare them for clinical practice. They learned that there was no difference in stress or performance between the SP and mannequin. The focus groups suggested that the use of SPs cases was perceived as more valuable in preparing students for actual clinical practice [20].

Back to the question- what type of research suits you? The choice is not based on you but rather on the nature of the research. Table 11.3 provides the key Elements of Research.

Once a scholarly question has been framed and methodology chosen, it is necessary to have the project reviewed by an Institutional Review Board (IRB) or Ethics Committee. The IRB or Ethics Committee is a group of individuals charged with reviewing research proposals involving human subjects to protect them by ensuring compliance with regulations. The rights and safety of both the SPs and learners must be explicitly protected. Each institution has its own IRB or Ethics Committee. Becoming familiar with how your IRB or

Table 11.3 Elements of research

Elements	Qualitative	Quantitative
Underlying assumptions	Subjective	Objective
Purpose	Explore complex issues and interactions among humans	Explore outcomes from treatments and defined conditions
Goal of research	How? Why? Concerned with process by understanding, describing, discovering and interpreting social interaction.	What? How many? How often? Concerned with outcome by examining the relationship between defined variables in controlled settings, by testing a hypothesis, looking at cause and effect and making predictions
Research questions	Discovered and developed during study based on participants views	Generated by researcher at start of study to be proven or disproven
Sample size	Small, non-random, targeted individuals	Large, randomized groups
Design	Case studies Focus groups In depth one on one interviews Observation Study of documents, photos and other artifacts	Experimental controlling all variables & randomized Semi Experimental controlling some variables, not randomized
Data sources	Transcriptions of focus groups, interviews and field notes	Structured and validated Surveys Audits Test scores Rating tools
Analysis	Data gathered and analyzed at same time Transcribed text analyzed thematically by researcher	Data gathered first and analyzed later Data analyzed by statistics
Reporting results	Words, audio, visual Non generalizable	Numbers, statistical analysis, descriptive statistics Generalizable
Rigor	Processes to check for internal and external validity and reliability	Processes to check for internal and external validity and reliability
Examples	Case study Narrative Action research	Survey Experiments

Ethics Committee reviews proposals is key. Often times, researchers think that they do not need to use the IRB or Ethics Committee as they are doing medical/healthcare education research. Most of the times, these types of studies will be exempt, meaning you do not need to go through full review process. The IRB/Ethics Committee will need to make this determination. If you intend to submit your work

to a conference or as a publication, it will not be accepted without that IRB/Ethics Committee determination.

Significant Results

This term broadly refers to "meaningful" results. Did what you set out to do with the SP activity achieve the goals? If your goals were clear and grounded in best practices, and the methods that you used were appropriate, what do your findings (analysis of your data) mean? If the outcomes obtained were unanticipated, it is important to think through the potential explanations. Results which are not aligned with predicted outcomes may open a whole new opportunity for scholarly inquiry.

Effective Presentation

Presentation of your innovation or research related to SP work allows others to interpret and adapt your work to advance the profession. This is the core tenet of scholarship – the dissemination of work that provides a foundation for building by others. Although publishing a manuscript describing an innovation or research activity allows broad and long-lasting dissemination of work, early presentations of ideas are also very important. If your work has been done using scholarly principles, prompt dissemination of findings may allow early adapters to build on your ideas. Targeting an appropriate audience is critical. Description of work with SPs may focus on specific techniques or logistics (most appropriate for an audience of SPEs) or may address a topic (e.g. High value care) that is of interest to graduate level program directors or health care administrators. Opportunities for presenting work in the latter category may be found in discipline specific meetings or healthcare education focused venues. Application of SP methodology outside of the healthcare realm may allow for dissemination at meetings with attendees previously unfamiliar with SPs. Many conferences are appropriate venues for scholarship highlighting SP methodology. In addition to ASPE, other simulation conferences including those sponsored by the Society for Simulation in Healthcare or INASCL welcome work focused on SPs. General medical education conferences such as the Group on Educational Affairs (GEA) regional conferences, or the American Association of Medial Colleges (AAMC), Association for Medical Education in Europe (AMEE), Society in Europe for Simulation Applied to Medicine (SESAM), and Asia Pacific Medical Education Conference (APMEC) also accept SP research. Additionally, discipline specific conferences with a section on education may welcome SP related work.

Table 11.4 Abstract sections

Abstract sections		
Section	Glassick's	Queries guiding the content
Background	Clear Goals Adequate preparation	What stimulated this study, What is known in the area? Why is this important? What is the specific research question framing your work?
Methods	Appropriate methods	What did you do? What methods were used? How did you collect data, and how did you analyze it?
Results	Results	What did you find?
Discussion	Reflective critique	What do your results mean? What are the strengths and limitations What are your next steps?

The opportunity to present your work at a conference often begins with a call for abstracts. Presentations may take a variety of forms including posters or oral abstracts, research papers, small group discussions or workshops. All of these, if peer reviewed, represent educational scholarship.

Abstract writing is a skill, and despite the short length of such submissions, requires practice. One of the best ways to become skilled at writing is to read published abstracts and/or to serve as a reviewer. Abstracts typically are constructed in four sections: background, methods, results, and discussion. You should answer specific questions within each section as seen in Table 11.4

Recognize the limitations imposed by the short length of an abstract. Be certain that you can include adequate information in each section so that peer reviewers can fairly assess your work. Most abstracts will contain a word limit. Be sure you are aware of that limit when submitting your work. If you exceed the limit it will not be reviewed.

Formats for Presenting Your Work

Local, national and international conferences offer many opportunities to present your research and or innovation. You could present your work in an oral presentation session or on a panel. You can offer a workshop. One of the easiest ways to start off is with a poster presentation. While you might think that you would rather do a presentation, panel or workshop, a poster presentation provides the opportunity to present your work and get feedback from a larger audience. Posters are usually left up for viewing for several days while a presentation or panel is offered only once. An added benefit is you can display your poster at your home institution after the conference.

A poster has two key elements, the content (the information you want to present) and the visual display. While the visual display is the feature that is likely to draw people to your presentation, the content of the poster must be con-

structed in a way to allow you to share your work in a concise format. Here are 7 practical suggestions for creating a good poster.

Organizing the Content of your Poster Presentation
What is the key message that you want to convey about your work? Be certain that the poster focuses on one or two key points
Write the content of the poster out in a word document first. Organize the content into sections (introduction, methods/process, results/outcomes, discussion, conclusion). The content of the poster should not exceed 800 word. Decide which information can be displayed as a table or graph to minimize text.
Be certain that the primary problem being addressed, or the research question, is clear and stands alone. This should appear at the end of the introduction or can be its own section on the poster.
Look carefully at the information you intend to include. Provide a concise background to highlight why the project/research was done but focus the content on what was done and what it means.
If you include references, link them in the text with the corresponding number superscripted
Use the title that corresponds to the title of your abstract. This is what will be posted in the program and attendees may specifically be looking for your work.
If you have done more work on the project since submitting the abstract and your participant numbers or time implementing the project has increased, it is okay to include updated data or outcomes in your results. However, if your conclusions have changed dramatically from the initial abstract, you should highlight that in the discussion.

Poster Presentation [21–23]

Usually there is time set aside at a conference for the attendees to view posters. This is a great time for you to present key points, network, and get feedback. Although conferences are a time for more casual dress, this is the time to dress professionally. Stand to the side of your poster to make it easy for attendees to read. Your body language should indicate that you are open for questions. Stand with open posture and make eye contact. Give them time to read and ask if they have any questions. Be prepared for some attendees to pause and walk away. Have business cards to hand out. Consider having 8 × 11 copies of the poster for people to take. Before the conference, practice the points you want to make so you hit the highlights and do not get distracted.

See Table 11.5 and Fig. 11.3 for details such as size/orientation, background, sections, font choice, font size, heading, text and charts, graphs and pictures when designing the Ideal Poster.

Additional Poster Tips

- posters can be printed on cloth, paper or laminated
- carry your poster with you during travel to guarantee safe arrival
- each conference will have its own requirement for the nature and size of the poster

Table 11.5 Poster Design Elements

Size/ Orientation	48 x 36/Landscape (Check with conference)
Background	Plain, white or cream, not distracting
Sections	3–4 columns, reads from right to left, align columns & leave white space
Font Choice	Serif fonts increase ease and speed of reading Times New Roman, Georgia, Palatino, Garamond
Font Size	Must able to read from 4–10 ft. away Title 80 pt., Authors 44 pt., Headings 36 pt., Text 24 pt., Captions 18 pt.
Headings	Identify heading for each section Use one primary color **Bold text** 1. Introduction 2. Methods 3. Results 4. Discussion
Text	For easy reading • Black text on white background • Use bullets for ease of reading • Line spacing between 1.25 and 1.5 • Clear and to the point • Check spelling
Charts, graphs & pictures	Use only if adds to the understanding or concept Remove unnecessary labels, or markers Highlight important information Picture/image resolution (svg., eps. wrmf. or emf.) that can scale to any size
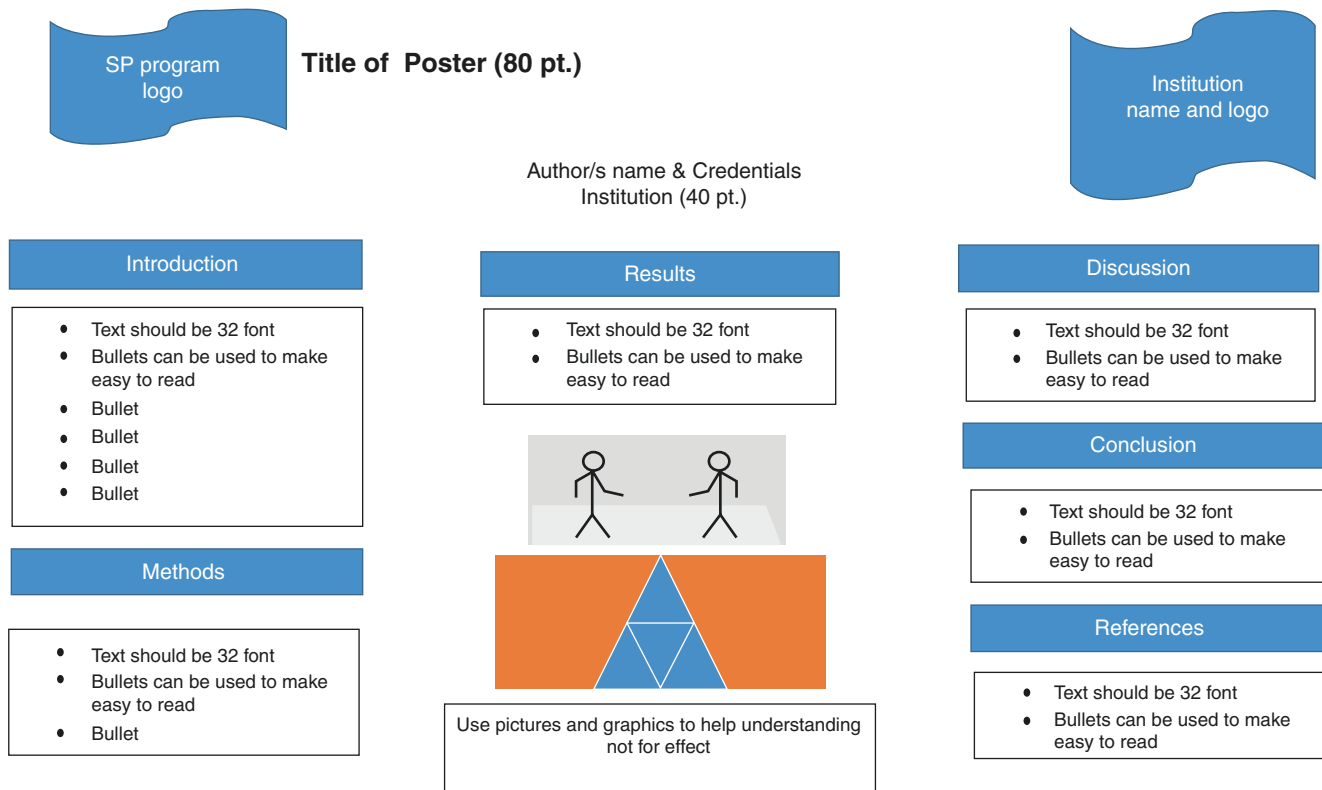
Fig. 11.3 Ideal poster design

- confirm the times to display your poster and the time to take it down
- find out if there is a set time you will be expected to present your poster

Publications

Publishing a full-length manuscript describing your work requires a significant investment of time. The acceptance rate for many journals is low (<20%), meaning that rewriting following a rejection may be needed. A unique opportunity to publish SP related materials is with MedEdPORTAL https://www.mededportal.org/. This peer reviewed, indexed journal will publish curricular innovations with SPs, including SP cases, as long as some outcome data are available.

Reflective Critique

The simulation literature has many articles discussing the importance of the feedback and debriefing of activities. The underlying principles also apply to personal scholarly work. It is essential that time for reflection on the work is allowed, and that any peer feedback on scholarship is taken into consideration. Reflection starts at the level of the activity and should consider each step of the process. Once work is disseminated, SPEs should be prepared to incorporate feedback for growth. If work is accepted, the feedback may help to guide development of a presentation. Rejection decisions, while momentarily disheartening, allow reflection on how the work might be framed, or in some cases, more clearly described. Reviewing the work of others can advance your ability to be critical of your own. Structuring high quality feedback (e.g. what about this do I like, and what areas are not strong?) will help you to apply that same process with your own writing. Educational scholarship starts with scholarly work. Framing work with careful consideration of each step provides the opportunity to ask questions which are grounded in prior scholarly work.

Advancing our profession depends on continuing curiosity about what we do and how we can enhance opportunities for our learners, our SPs, other stakeholders, and ourselves.

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Broader Applications of Communication: Using the Human Body for Teaching and Assessment

Chelsea Weaks, Holly Hopkins, Lorraine Lyman, and Scott W. George

Abbreviations

ASPE	Association of Standardized Patient Educators
COMLEX-USA	Comprehensive Osteopathic Medical Licensing Examination.
GTA	Gynecological Teaching Associate
GUTA	Genitourinary Teaching Associate
INACSL	International Nursing Association for Clinical Simulation & Learning
MUTA	Male Urological Teaching Associate
OB/GYN	Obstetrics and Gynecology
OSCE	Objective Structured Clinical Examination
PETA	Physical Examination Teaching Associate
SMART	Specific. Measurable. Achievable. Relevant. Time-bound
SME	subject matter expert
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
SSH	Society for Simulation in Healthcare
TA	Teaching Associate
USMLE	United States Medical Licensing Examination

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Introduction

You can use Standardized Patient Methodology in a variety of modalities that apply beyond the confines of communication. This chapter will provide points to consider when addressing expanded teaching applications for the instruction of physical exams. The Society for Simulation in Healthcare (SSH) published the Healthcare Simulation Dictionary that provides valuable definitions for some of these expanded applications. That dictionary draws from previously developed definitions by the Association of Standardized Patient Educators (ASPE) for its definition of a Standardized Patient (SP) which explicitly includes the SP's ability to teach and assess learners on physical examination skills [1]. We will discuss the subset of SPs who have received additional specialized training to instruct learners on the physical examination. There are two main subcategories of SPs who instruct physical exams. Those who are tasked with teaching and assessing physical examination skills and techniques are generally called Physical Exam Teaching Associates (PETAs). The second subcategory is the Genitourinary Teaching Associate, or GUTA. These GUTAs are "trained to teach the techniques and protocol for performing the gender-specific physical examination to learners, using himself or herself as a demonstration and practice model." [1] (p.13). The GUTAs can be further divided into Gynecological Teaching Associates (GTAs) who instruct the breast and gynecological exams, and Male Urogenital Teaching Associates, (MUTAs) who instruct the genitourinary, rectal and prostate exams. Throughout this chapter you will find that the design and implementation of these programs are often only minimally impacted by the body system being examined. When the body system is not a relevant consideration the term Teaching Associate (TA) will be used to denote an instructor in any PETA or GUTA program.

It is important to note that in this chapter we define PETAs, GTAs and MUTAs as instructors who are "specifically trained

to teach, assess, and provide feedback to learners" [1] (p.13). This differs from the use of an SP as a passive model upon whom the exam is performed. These different approaches are both represented in the literature, however, historically using a trained instructor instead of a model began as a means to better provide learners with the patient's perspective [2]. It allows the instructors to take an active role in the education of the participants and you will note significant advantages to this framework are highlighted throughout the chapter. For you to develop instructors who take an active role in the participant's education you will find there is a significant investment in training and quality assurance that are required. The PETA and GUTA roles are not employed identically across programs, and it is critical for you to evaluate the manner in which your program will embrace this definition.

Getting Started

To ensure success, you must begin by building a solid foundation before any instructional design implementation begins. If your program is independent of an existing simulation or SP program, first consider how your program will function internally to acquire and maintain materials and employees. Once your program's foundation has been created you will be able to apply the methodology and content of this chapter more directly to the development and initial implementation of your expanded SP roles. If your PETA or GUTA program is being designed within an existing simulation program you must consider how effectively your existing processes function. This examination can include an evaluation of all protocols you are currently employing to determine if they are scalable to allow for the growth of the program.

Relevant Practices from the ASPE Standards of Best Practice [3] are seen in Table 12.1.

You must have a thoughtful plan in place before hiring TAs or instructing a single learner. Why do you want to implement this program? Begin by developing a mission statement and program goals. The mission statement will provide broad guidance for your organization and provide you with a tangible reference to guide future development. Program goals, in collaboration with the mission statement, guide every single decision you make moving forward. For example, will learners have the opportunity to observe a

skill, practice a skill, or demonstrate competence of a skill during a session? This distinction guides the format of the sessions you will design and will help you make one of your first decisions; are you developing an instructional session or an assessment session? The program goals determine the structure you select, and therefore will impact the timing of your sessions, number of learners included per session, evaluation methods, and training required for your TA.

For each goal develop measurable outcomes to enable evaluation of the program once it is implemented. The more specific you set the outcome, the more viable it is for you to develop a robust program that can be evaluated and refined as it progresses. While this does require your time and energy at the front end of development it allows for a smoother and more robust evaluation to ensure you are meeting the objectives you created at the outset. These measurable outcomes may include both short- and long-term outcomes and formulated in a manner that they are objective, measurable, and relevant. You must also consider their use over the life of the program. To ensure relevance you will need a time-bound and specific outcome that can be evaluated by both internal and external personnel. Lastly, these outcomes will need to be evaluated. It can be beneficial for you to develop a general evaluation strategy at the outset that can provide a framework on which you can evaluate your program's success.

The mission statement, program goals, and measurable program outcomes are reflected in measurable student learning outcomes. Table 12.2 includes examples of possible statements that would meet the objectives as they are listed. This development procedure will help you effectively develop a program that remains consistent with the goals from the outset of design, but it will additionally allow for a specific and streamlined evaluation process. If your programs are seeking accreditation at any point in the future, this design process will ensure you are prepared and confident with your program's structure.

Table 12.1 ASPE SOBP mission & goals

SOBP 4.1.1	Articulate a mission statement for the program
SOBP 4.1.2	Develop program goals
SOBP 4.1.3	Identify measurable objectives for each goal (where appropriate)

Table 12.2 Development procedure

Sample mission statement: Our mission is to provide a safe environment for learners to develop hard and soft skills necessary to provide accurate, patient-centered physical examinations. Each learning session will provide learners with real-time feedback and opportunity for repetition until competence is obtained

Sample program goal: Learners will be able to conduct respectful, patient-centered physical examinations

Sample measurable outcome: Before beginning their OB/GYN clerkship, medical students will demonstrate proficiency conducting a pelvic examination as evidenced by a GTA completing a SMART checklist. (Specific. Measurable. Achievable. Relevant. Time-bound)

Sample session objective: The PETA will create a safe environment as demonstrated by learner feedback and trainer review of recorded instructional session

Sample student learning outcome: Learners will safely and respectfully perform the skills they have learned from the TA experience while in their supervised clinical experiences

The Development Team

Relevant Practices from the ASPE Standards of Best Practice [3] are seen in Table 12.3.

The development process will be driven by the change agent responsible for envisioning the new program. This change agent may be you, or it may be a faculty member or member of the administrative team. Regardless of the impetus for change, develop an interdisciplinary team to include collaboration with individuals knowledgeable in SP methodology, SME, and administration. While many people have experiences in more than one of these roles, you can evaluate the variety of expertise and include a range of individuals who can work together on this project. Your goal is to ensure the many facets of the development process are analyzed from multiple perspectives. As experts are included, you must also define clear roles and responsibilities for each individual to promote clarity and reduce redundancy. Some of the expectations for the expert's roles and responsibilities are outlined in Table 12.4.

The individual who you define as the SP Methodology Expert must be knowledgeable about the methodology (i.e. PETA, GTA, or MUTA methodology) and will often have expertise related to prior experiences in the field. When possible, determine if they have experience as an SP, PETA,

GTA, and/or MUTA, the scope of their experience, and discuss the specifics of their experiences to ensure that their expertise aligns with your program's mission and goals. In some cases, these experts are chosen from within your existing program to develop and implement the expansion of the roles available to your SPs. In this case your evaluation of their expertise may be less extensive as you already are familiar with their experience and the way they approach new projects.

The SME may include faculty and/or health care professionals that routinely conduct the physical examinations that you aim to instruct. Faculty will hold expertise in the learner's overall curriculum and therefore do not necessarily need to specialize in the systems to be taught. The SME, however, must have expertise with the body system you aim to instruct. For example, a urologist may provide excellent feedback as a faculty member but may not have the expertise to guide training material development for a breast examination module. This example highlights that you can include a single faculty member who takes the role of faculty and SME, but it is not necessary that you select one person who qualifies for both roles. You may ultimately require multiple SMEs depending on which body systems you are planning to include in the curriculum and the session format selected for the experiences.

As you can see, it is easy for roles and responsibilities to begin to blur if all of the expert's roles are not clearly outlined starting during the initial development conceptualization. The larger the team grows, the more challenging it can be to specify the roles and responsibilities of each individual. It can be beneficial to limit the number of members on your team, however if your team grows beyond a manageable size you may consider creating a structure that allows the experts within each role to communicate and report back to the group. This is most likely to happen when multiple faculty or SMEs are required to ensure all systems are represented adequately.

Along with the development of your team, you will also need to determine which resources will be utilized for the creation of content. This may include which textbook you will use to determine the techniques that will be taught or assessed by your TAs. Some commonly used textbooks are highlighted in Table 12.5. The physical assessment textbook assigned to learners for their classes or program is often the basis of the physical examination techniques that are instructed in a TA session. The SME however is a valuable resource to provide information to exclude certain techniques or provide additional evidence-based techniques for inclusion based on the session objectives. The extent those techniques will be incorporated into the program can be evaluated by the development team to examine the value of the techniques based upon the learner's needs and program's

Table 12.3 ASPE SOBPs – development team

SOBP 4.2.1	Possess depth of knowledge in SP methodology
SOBP 4.2.4	Collaborate with subject matter experts to design SP cases, training, and assessment materials
SOBP 2.1.2	Identify and engage relevant subject matter experts to assist in the creation of materials

Table 12.4 ASPE SOBP mission & goals

Administration	Ensure consistency in policies and procedures with other programs within the department and institution Collaborate with appropriate departments (i.e. Human Resources) regarding hiring, pay, etc.
Faculty	Ensure consistency with learner preparation and instruction (i.e. textbook materials, lectures, videos) Advocate for appropriate timing within the curriculum such that the TA session is attended near the time of classroom instruction for the related content
Methodology expert	Ensure consistency with best practices for conduct of TA sessions Develop TA training protocol and materials Develop and implement a plan for quality assurance
Subject matter expert	Ensure consistency with best practices for conduct of the physical examination in question Participate in training of newly-hired TA

Table 12.5 Commonly used textbooks: not intended to endorse products

1. Brickley, L.S., Szilagyi, P.G., & Hoffman, R.M. (2017). Bate's guide to physical examination and history taking (12th Ed.). Philadelphia: Wolters Kluwer
2. Schwartz, M.G. (2014). Textbook of physical diagnosis: history and examination (seventh Ed.). Philadelphia: Elsevier Saunders
3. Jarvis, C. (2016). Physical examination and health assessment (seventh Ed.). Philadelphia, PA: Elsevier Saunders
4. Seidel, H., Ball, J., Dains, J., Flynn, J., Solomon, B., & Steward, R. (2010). Mosby's guide to physical examination. Philadelphia, PA: Elsevier Saunders

objectives. This also correlates with the format of the session being developed which will be chosen later in the development process.

If you are developing a session where your program's mission statement and program goals center on familiarity and experiential application of examination techniques, the value of including additional techniques may be higher than in a program that focuses on assessing for minimum competency of the participants. This approach may be more complicated if your program is not being developed within an existing program. In these cases, the development team must select resources and come to a consensus on the manner in which techniques are being selected. Regardless of the situation, consistently refer back to the originally created program mission statement and program goals to ensure your development does not stray beyond your intended scope and to help guide the selection of program content.

Gaining Buy-In

The scope and focus of the program you are developing will determine which hurdles must be addressed before beginning the program's implementation. At this point, the difference between PETA programs and GUTA programs may be more noticeable since each program has distinct challenges. Commonly, the perceived invasiveness of the examined body system can impact the type of resistance that you receive from your administrators. You must consider the viewpoints of your administrators and prepare to defend the value that this program will add to your organization. There are several common concerns that arise when any new program is proposed including the cost, oversight, and value to the learners. It is of note that resistance from faculty and administration for any of these expanded SP applications are commonly based on the perception of the content, the perception of the employees that would be hired as TAs, and the perception of the program's cost. You will find these points below, however each organization will likely have its own hurdles that can be challenging to predict. When hurdles are identified you may want to reach out to other programs who have a similar scope

to determine if they faced the same challenges and how they were able to resolve them.

Since programs that specialize in expanded teaching applications including PETA, GTA, and MUTA instructional methods are well-established and have been regularly used in the last few decades, many younger health care providers and faculty members on your development team likely had some exposure to this teaching style while they were a student themselves. Evaluate how their previous experiences compare to the program you are designing. These similarities and differences, when paired with their perception of the previous program, can inform the decisions you make in the development process. Any concerns or ideas that these experiences spawned should be used to create a better picture of the ideal format for your sessions to ensure the learner's experiences are positive. Some health care professionals and faculty hold strong opinions about their learner experience which can be utilized to help facilitate acceptance (buy-in) and help mitigate interpersonal conflict that may develop due to differences in opinions regarding the value of the TA sessions. It is valuable to explore these perceptions within your team prior to seeking buy-in from other invested parties.

Since curriculum is tight, the content to be covered is continually expanding, and time is increasingly limited, you may want to prepare yourself for some of the common questions that will arise as program design begins. For example, you may be asked why a faculty member can't demonstrate the physical examination to the entire class then oversee peer practice. This is often incorrectly believed to be a better financial decision that requires fewer employees and supervision [4–8]. To effectively answer this question, you must first identify why the question is being asked. Table 12.6 outlines some common questions the administration might have, as well as suggested approaches to developing your response. To prepare yourself for some of these questions it is helpful to familiarize yourself with the literature to provide evidence on the importance of this methodology. The methodology expert should be the first point of contact to provide the literature support, however each member of the team must be prepared to explain the value of your program.

Common challenges from administration and the recommended approach for your response (Table 12.6).

One effective primary source of support for a developing program are the existing publications for the development or design of new simulation programs. For example, there are guidelines and standards of practice published by organizations such as the Association of Standardized Patient Educators (ASPE), the Society for Simulation in Healthcare (SSH), and the International Nursing Association for Clinical Simulation and Learning (INACSL). These publications can be used as an adjunct to the experiences of the development team to ensure the many aspects of a program have been considered. They are also effective resources to address the

Table 12.6 Common challenges

They are unfamiliar with simulation or lay-person instruction	Provide education about the format and literature supporting the chosen design. You may consider encouraging these faculty members to attend a session if you are designing an expanded practice within an existing simulation program
The person is not confident that a lay-person can instruct these techniques effectively	Provide education and clearly define the limits of the instruction being provided – this instruction relates to the performance of the techniques, not the clinical application of the knowledge [9, 10]
The person believes it will be too expensive	Provide a cost break down for the program. Often by highlighting the reduction in required faculty time you can improve the perceived value of the program Faculty are freed to participate in other required activities, such as seeing clients in the clinic, which yield substantially more income than is used to pay the TA [4–6, 8, 11]
The person believes the TAs will not be respected by the learners	This requires respect from the faculty to engender trust in the TAs. Learners value the TA feedback as much as faculty feedback [12]
The person believes it is not a maintainable format	Providing a well-developed plan that includes long term objectives may address these concerns. Additionally, there are many programs that exist who can be cited as evidence of maintainability
The person believes learner outcomes are the same between the existing and proposed formats	Learners have the opportunity to practice on a live human who is able to provide real-time feedback on the accuracy and comfort of the learner's technique. This also allows the learner to perform the exam in a low-stakes setting which can reduce their anxiety [13–18]

concerns outlined in Table 12.6. Additionally, there are available accreditation criteria that can be used to evaluate what pieces of the programmatic design are considered critical if accreditation is a goal for your program.

The scope of a TA program is quite far reaching and can be customized to include a broad but generalized examination or a specific system examination with a more thorough exam including special screening maneuvers. It may be easier for you to begin by utilizing the faculty to determine what gaps exist in the current program that can be filled by TAs. Your program may fit into the preparation of learners before they go to their first clinical experience, or it may be a way to provide practice and refinement after seeing the physical exam application in the clinical setting. You may choose to utilize the TA program only for instruction to offload some time commitments from the faculty, or you may be creating assessments to evaluate learner's competency levels before they move further into the program. One example would be utilizing TAs to refine or assess pelvic and breast examination skills before their OBGYN clerkship. No matter the scope you identify, the identification of where your sessions will fit

into the curriculum is central to preparing to gain buy-in for the development of your program. It allows you to identify who is most likely to be an advocate for your program and will allow you to determine where to begin seeking support.

PETA Specific Considerations

While considering the value of adding a PETA program, it can be helpful to leverage the preparation of the learners for any board examinations that are applicable. The United States Medical Licensing Examination (USMLE) for US medical schools and the Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA) for US osteopathic medical schools are two examples where learners will face SP sessions that include a physical exam as a part of their board certification examinations. In these examples the value of a PETA program is related to increased comfort for your learners when faced with this high-stakes assessment. If your learners will require one of these types of examinations this may be enough leverage to engage the administration in the conversation regarding your program development. This is not to say that you will have an easy path to administrative support, so you must be able to effectively argue that the approach they are currently receiving is not as effective in preparing the learners for their board examinations as your proposed PETA program.

You may find that your PETA program is opposed due to a misunderstanding of faculty's role in the program. Faculty members are competent and practiced in their techniques however there is a high likelihood that each faculty member uses a variation of many physical exam techniques that differ slightly from the textbook practice. This variation is an area where the PETA instruction can provide increased standardization and more opportunities to practice while also reducing faculty work load. You may also find opposition when faculty are passionate and excited about facilitating their student's learning. While it is globally an advantage for the students to have passionate faculty, it can create a hurdle to change since these faculty members may resist stepping back from their current role into a role that focuses more on providing clinical context. To effectively address this challenge, you may consider choosing a format where the faculty members are still present for part of a session to provide a clinical context during the physical exam instruction or an iterative process that allows instruction by a PETA and subsequent contextual instruction by faculty. In either case, the faculty are still necessary to provide clinical context since a PETA's expertise is only with the technique.

A PETA program can shine when being used for assessment purposes since other variations of learner assessments cannot provide the same quality. Using PETAs to complete checklists for the learners in an assessment session requires

fewer faculty hours while providing more standardization and therefore can help a program address some of the hesitance related to gaining buy-in. Assessments will still require faculty input for determining which techniques are appropriate for each assessment, however this increased requirement for faculty can be countered with the reduced faculty time required for the initial exam instruction. Negotiating with faculty to maintain their involvement can be a significant hurdle in the creation of a PETA program but by emphasizing the cost savings and standardization of technique instruction you have a strong backing to spark change within your program.

GUTA Specific Considerations

When considering developing a Genitourinary Teaching Associate (GUTA) program, similar complications arise. Whether you are designing a GTA program, MUTA program, or both, you will need to consider the value that can be added for the learners. This may be done by including these sessions with a clerkship where they are likely to use these skills, or it may be tied into the curriculum during a reproductive health module. No matter where it is placed in the curriculum, you must be sure that the value of the sessions is emphasized while seeking buy-in. The exams that are included in GUTA sessions are commonly tied with anxiety and stress for both learners and patients. There are also benefits for a patient since they are not receiving an exam from a learner who has learned about the exam during a lecture but has never practiced the skill.

When compared to PETA program opposition, a GUTA program may not have the same strong resistance from faculty regarding relinquishing their teaching role. You may find that if your faculty do not regularly practice these skills, they are more accepting of a GUTA program to provide the initial instruction for their learners. While there are faculty in every facility who are passionate about these exams, there may be fewer available faculty members who are then more likely to have invested more time for the current technique instruction than faculty members who are instructing other physical exam techniques. As with PETA program development, be intentional when working with these faculty members to retain their passion and investment in the program throughout the instructional design change. They are necessary components of providing the context and application for the techniques that are instructed by the GUTAs.

Materials Management

When beginning a new program, you must consider the equipment that is needed to thoroughly instruct or assess the learners. The TAs require access to appropriate tools and

Table 12.7 Equipment

Consumable	Reusable	Either or Both
Gloves (latex free)	Lamp	Gowns
Paper table cover	Stethoscope	Drapes
Tongue depressor	Tuning fork	Metal vaginal speculum[a]
Tissue	Reflex hammer	Anoscope[a]
Hand sanitizer	Otoscope	
Ear specula	Ophthalmoscope	
Lubricant packets	Sphygmomanometer	
Plastic vaginal speculum	Snellen eye chart	

[a]Reusable items require sterilization between uses

supplies in order to provide adequate instruction and these may include both disposable and reusable equipment. As with the creation of a mission statement for the program, this area will differ greatly if you are creating a new application within an existing simulation program, especially if you already stock supplies for existing SP experiences. The same rationale applies no matter the system being taught; however, the tools will differ based on the body system examinations. More information about the type of equipment to consider is available in Table 12.7.

If you are working within an existing program, begin your materials assessment with the large standard items and layout of your rooms. Items to evaluate would include window covers for external windows, the arrangement of cameras, internal windows for observation, access to the rooms, availability of sinks, and the exam table and chairs within the room. Each item must first be evaluated to determine if it needs to be modified to ensure the TA's privacy. For example, consider opaque covering for the external windows to ensure modesty during a session. If you have internal windows or other means of monitoring a room during a session these should also be evaluated to determine if access can be controlled during a TA session. If they are not secure, then additional steps are needed to ensure the TA privacy. Determine which items in the rooms may be valuable assets to beginning a new program. For example, if you have a sink in each room you will be able to facilitate physical examination sessions more effectively than if there is no sink available to wash hands if needed. Additionally, if you are developing a GTA program investigate if the tables that are available in the exam rooms have the required extendable footrests. These are almost exclusively used for the gynecological examination and therefore may have been an overlooked feature when purchasing an examination table.

In an existing simulation program, there may be an established process for ensuring the rooms are stocked with tissues, hand sanitizer, and gloves, but there may not be a process for ensuring the rooms are stocked with a stethoscope if it has been assumed the learners will supply their own. The same is true for many of the reusable supplies, as

in many cases the learners are required to provide these tools in a clinical setting. If this is the case, you must determine what equipment you will require from the learners, and what equipment you will be supplying. Even for the equipment that is being supplied by the learners however, you should have a limited amount available for the instructors to become familiar with. These can also be used during your TA training to ensure they are prepared to instruct and evaluate the learners.

Equipment for PETA, GTA, or MUTA programs (Table 12.7).

The physical assessment textbook that is used by your program will typically include a list of materials necessary for conduct of each physical examination, however for many items you may find available choices for consumable or reusable items. You must develop a plan for replenishing consumable items to ensure that they are available and not expired. Materials may be ordered in bulk through medical supply companies or online retailers. Envision your long-term needs before placing your first order. This may include considerations such as the number of exams you anticipate occurring concurrently and the number of sessions over the course of the day. If you have access to ten exam rooms and hope to have ten PETAs instructing HEENT examinations concurrently, you will need to order at least ten otoscopes, ophthalmoscopes, Snellen eye charts, tuning forks, etc. If you then plan to have three groups of students over the course of the day in each room, you will need to ensure each room has consumables for all three groups. Also consider whether you want additional items available for learners to "check-out" when they are not practicing with a TA.

When deciding between consumable and reusable equipment options you must consider the maintenance process that would be required for the reusable equipment. Processing reusable items may be as easy as periodically wiping down the items with a bacteriostatic solution or as challenging as transporting the items to be sterilized at an outside facility (typically only necessary for vaginal speculum and anoscope). Reusable items that are placed into the body without protection (i.e. vaginal speculum) should be only be used one time with only one TA, and then sterilized before re-use. Your local hospital and/or outpatient surgical center will have a department aimed at sterilizing equipment (ex. Central Sterile Services Department, Sterile Processing, Central Supply Department, Central Supply). If you call this department, they may be willing to sterilize your equipment as necessary but be cognizant of the need to develop a written agreement between your organization and the department. This agreement may include points such as how many items can they process, what is their time frame, and how you must prepare the items before delivery. You will also need to deter-

mine who is responsible for transportation of the used materials and if there are any standard precautions that must be considered before transporting. For example, vaginal secretions are considered other potentially infectious materials by the Occupational Safety and Health Administration (OSHA) in the US and therefore may require additional precautions based on the organization that houses your program [19]. Another reusable material to consider is the linens that are used by your program. Reusable linens that are maintained by the program will require laundering through an in-house or hired service. You may choose instead to provide personal linens for your TA, in which case you may decide to delegate the laundering of these linens to the TA.

Storage, and sometimes transportation of clean equipment, is a necessary consideration as well. If your program is housed in one building on campus, a storage closet and plan for ordering/managing necessary supplies may be sufficient. Programs that serve outside institutions or run events at outside locations will need to consider whether they will transport the necessary tools to the instructional location or whether the outside institution is responsible for materials management. Additionally, transportation for instructors alongside the transportation of materials must be considered. You may decide that the instructors are responsible for their own transportation to and from the work site, however it may be more effective for your program to require the instructors to travel together if the facility is a longer distance from your home facility. Your program may decide to purchase and manage vehicles for travel, in which case they must also be considered within the materials management discussion.

Relevant Practices from the ASPE Standards of Best Practice [3] to address Safe work environment is seen in Table 12.8.

Policy and Document Development

Once the core of the program has been developed including content and session design you can move forward to develop policies and procedures specific to your program needs. The development of these policies can begin internally, however, policy development generally requires consultation with legal, financial, and/or human resources experts. The process

Table 12.8 ASPE SOPB – safe work environment

| SOBP 1.1.1 | Ensure safe working conditions in the design of the activity (e.g., number of rotations, number of breaks, physical, cognitive, and psychological challenges in the role portrayal |
| SOBP 1.1.2 | Anticipate and recognize potential occupational hazards, including threats to SP safety in the environment (e.g. allergenic substances, exposure to sharps, air quality, live defibrillators) |

for policy development will require a significant time investment and there are many stakeholders in this process. Do not underestimate the timeline since even if you create policies internally, they will often need final approval from multiple agencies which may delay their implementation.

To begin, utilize your program goal and mission statement from earlier in the process. These goals will guide your policy development throughout this process. If you are working within an existing organization that does not have an existing SP program there may be an existing bank of documents that can be edited, or your organization may be able to provide a list of requirements for types of documents to create. If you are expanding an existing SP program you likely already have a policies and procedures document that is specific to that program. For your new program you may choose to create a policies and procedures manual addendum or utilize the existing document that can be amended to function as a stand-alone document.

Commonly for GUTA programs, and much less commonly for PETA programs, programs require a medical release form or procedure before training begins. The objective of the form is multifaceted, including documenting that the applicant is a safe and appropriate fit for the program, documenting current health findings, and setting the applicant's baseline in case of injury. These forms may have different requirements based on the organization, but often are either completed by the applicant's personal provider or by a healthcare provider employed by your organization. In some cases, your organization may want a form from the applicant's personal healthcare provider as well as an exam by an internal provider which can be used as a part of the training process for the examination. This form may need approval from the legal department as well as from occupational health if applicable for your program.

Along with the release form you may consider discussing with your occupational health department a procedure for if there is an injury while a TA is working. The standard occupational health forms often do not include options that fit with an injury that may occur during a TA session. Injuries may occur because of an inappropriate technique being used or injury due to repeated examinations. Your conversation with occupational health should also include the process or requirements for workman's compensation if that applies based on your employee's status within your organization. While injuries are uncommon, they are possible, and you must be prepared for this situation when it occurs.

Another important consideration when creating documentation are the training materials that will be required for your new program. To determine the needed materials, you will need to first determine which systems are being instructed or assessed, and what the scope of those topics will be. For example, if you are creating a PETA program that will include the full physical examination you will need to determine how best to chunk information in a training guide for each system included in this full physical scope. That may mean you have eight systems that each require training material and training time.

You will also need to evaluate the TAs involvement with instructional sessions, assessment sessions, or both. For instructional sessions you must ensure the TAs are trained in all of the techniques and have enough practice to effectively instruct the techniques. If there will be a preceptor in the room the TAs must be aware of the scope of their training and when to speak up or differ to the preceptor. For example, if there is a question from a learner about a way to modify the technique the TA may be prepared to answer that question. Instead, if there is a question about what a specific sound would mean when auscultating the heart, the preceptor would be a more appropriate person to respond. In both of these cases however, both the TA and the preceptor should have been briefed on the scope of their role and be empowered to elaborate upon answers that are within their scope as they see fit.

To create your training materials, you will need to begin by referring back to the physical exam textbook that was selected for your program. Alongside the book you will need to facilitate a collaboration between the SME, faculty, and methodology expert to determine what information is relevant and necessary for the TAs to be trained on. For example, they likely do not need to know the function of the spleen to be able to instruct a learner on the techniques to palpate for spleen enlargement. They do, however, need to know that the spleen is an organ on the left side of the body under the ribs. This information differentiation is important to ensure you do not overload your TAs during their training process, but also do not overlook information that is critical to their ability to instruct or assess the techniques.

The methodology expert is an excellent resource to determine the format for the training materials. Generally, the materials will need to have a consistent format across body systems and will need to use comparable terminology to facilitate ease of use for the TAs. The material should also include available resources for the TA if they would like to search for additional material that is consistent with your training approach. Some programs rely heavily on their faculty for the instruction of TAs. This may mean that faculty comes and instructs the TAs directly or that a video is approved by faculty to be used to facilitate the TA's knowledge acquisition. In either case, standardization needs to be evaluated to ensure the TAs have a resource that they can reference if there is confusion when the faculty is not available. The creation of an instructor manual or a reference document that lists the techniques and the approved ways to perform them can be invaluable for a program, even though it takes a significant amount of development time.

Table 12.9 ASPE SOPB – policies & procedures

SOBP 4.3.1	Develop and document policies to guide program activities
SOBP 4.3.2	Develop and document policies that take into consideration disability access and inclusion
SOBP 4.3.3	Develop and document business processes and procedures, including but not limited to creating financial management, business, and strategic plans
SOBP 4.3.4	Ensure policies and procedures are kept current and accessible
SOBP 4.3.5	Distribute policies and procedures to relevant stakeholders
SOBP 4.5.4	Establish policies and procedures for the psychological, physical, and environmental safety of SPs, learners, staff, and faculty

Relevant Practices from the ASPE Standards of Best Practice [3] are seen in Table 12.9.

Instructional Sessions

There are many different styles of instructional sessions that can be designed to meet the needs of your program. Standardized Patients are sometimes used as passive models for instruction where they are the physical body upon which the exam is performed while a faculty member provides the instruction. In these sessions the SP is not functioning as a TA, and therefore often is not provided additional training. These sessions allow for a demonstration, however, are not an effective way to provide the specific feedback and training that PETA and GUTA programs are designed to provide. The benefit of a program using TAs for the learners is the ability to practice the techniques and receive feedback and refinement on the skills they are practicing directly from the instructor themselves. Your program may find value in providing a model for a demonstration; however, this will not be discussed in detail in this chapter.

Instructional sessions encompass a range of formats that can be used to teach physical examination skills to your learners. They are differentiated from the assessment sessions by the fact that the instructors are leading the sessions and determining the next technique or approach to discuss. You can use these sessions to address a range of goals, however they are most often used to facilitate the participant's initial exposure to a technique or to encourage additional practice and refinement of techniques they have learned in another setting. As you are developing your program you will need to again refer to the goals you identified at the outset of your development. If you identified the session objectives or learner outcomes that include refinement or practice, you will likely find an instructional session format to be the most fitting to meet those goals.

You will need to evaluate the format that is most beneficial for your learners. One example is addressing how to pro-

vide learners with as much feedback as possible with a limited time investment. To manage this, you may choose to develop a small group format. These small groups can allow for each learner to perform each part of the exam while receiving specific feedback from the TA. While this is happening, the other two learners have the opportunity to observe, hear the feedback, and hopefully apply that feedback when they have their opportunity to practice. The size of the group can be determined by how you need to schedule the learners or how large of a room you have available. Group sessions also work well if your goal is to expose the participants to different techniques or to allow them to practice these techniques on an instructor. In contrast, if your goal is to refine techniques to reach a certain level of competency you may instead opt for a one-on-one teaching or refinement session. You may choose a one-on-one session if your goal is to provide practice that can then be very individualized, however this will mean you require more reserved room and staffing time, which would be more costly. Additionally, you must consider the cost of providing some degree of chaperone to protect the learner and the TA.

The initial PETA or GUTA instructional sessions should be scheduled to occur very shortly after learners have been instructed on the related system in the classroom. If desired, refresher sessions may be scheduled to allow for practice before an assessment or before the learners enter a clinical setting to ensure the techniques are fresh in the learner's minds and are being performed safely and appropriately. You may find that your learners value refresher sessions differently based on the system they are performing and their familiarity with those techniques. For example, if they received their initial instruction on the pelvic examination over a year ago and have not practiced since then, they may be more grateful for a refresher before their OBGYN clerkship. Regardless of the context of the instructional session the content must be relevant to the participant and therefore is a logistical consideration when you are evaluating the placement of these sessions within a curriculum.

Instruction should be chunked into sections that focus on only one system at a time to limit cognitive loading, however more than one system can be addressed in a single session. For example, it is not uncommon for a GTA session to include instruction on both the breast and pelvic exams, however they are instructed as discrete examinations and the entirety of one system is covered, all learners are allowed to practice, and then they move into the next discrete examination. Base sessions on a logical structure that allows the learners to engage with the information and process each exam individually as well as in context with the rest of the physical examination. Due to this information chunking, evaluate the amount of time a learner is engaged in a session before they are allowed a break. If you schedule multiple

sessions in a day you must evaluate not only the fatigue levels of your TAs, but also that of the learners.

You must also consider the TA's safety in relation to the allotted session time. If a learner feels rushed, they are more likely to inadvertently perform a technique in an unsafe manner. You must advocate for the TA's safety and wellbeing when developing your sessions and when working with new clients. As the time allotted for each system will vary, refer to your previously developed goals and objectives for guidance on how to effectively determine session length. If one system requires more time investment you may choose to limit the number of learners per group or limit the number of groups per day that are scheduled.

In addition to the need to evaluate how the session is formatted you also need to determine the instructional style your program will utilize. There are three main approaches to using a TA as an instructor for the physical examination. Independent instruction is commonly used in the United States where the instructor is both the physical body, the instructor, and provides direct feedback from the patient's perspective. Team teaching or paired instruction is also a popular approach where two TAs are paired to lead each session. One of the TAs provides instruction and guidance, while the other is the person receiving the exam and providing immediate feedback. This structure most often requires the instructors to be proficient in both roles, and commonly has the instructors switch roles between sessions to avoid fatigue. It also allows for an instructor to still work a scheduled session as the facilitator if they have a physical concern and would prefer not to receive the exam during that day. For example, if they are on their menstrual cycle and they are not comfortable receiving an exam at that time. Since both TAs in the room are providing instruction and neither is a faculty member, they are both functioning within the role of a TA.

Another format includes the use of a preceptor. You can select preceptors based upon your program's available resources. That means you may select faculty members, higher level students, or a combination of the two. The preceptor-led approach can be formatted in a number of ways to meet your objectives. In some programs a preceptor is present in the instructional session or is readily available and serves as an ancillary member of the instructional team that provides clinical context or examples and answers the learner's questions about application of the techniques. Alternatively, the preceptor may be the primary instructor on the team which would allow the TA to provide information and guidance about how to perform the techniques the preceptor discusses. In all of these formats the TA should be trained on the techniques being performed as well as explicitly trained regarding the line for differing questions to faculty for information beyond the scope of their training. The preceptor-led sessions do have the benefit of allowing for clinical information to be immediately provided to the students alongside the physical exam technique instructions but are generally harder to standardize the content and experience that each learner receives.

Each of these different instructional designs have differences in how the sessions can be facilitated as well as the cost related to scheduling as well as TA and faculty time. Independent instruction requires the least amount of faculty time, however, to prepare a TA for this format it often takes more initial training performed by your staff. Paired instruction allows the instructors to have a reduced physical demand relative to the number of sessions they instruct which may allow them to safely instruct more sessions in a day. Paired instruction also requires little faculty time however, it does require more instructor time per learner. With the decreased physical demand however, this may mean you can schedule more learners in a single day. Lastly, the preceptor-led approach is much more costly in terms of price per hour but requires less training for the TA. It is important to note that the TA still requires training to be able to instruct the learners from the patient's perspective and should still be included in the instruction and refinement of the learners in their sessions. Additional complications include that it can be more difficult to schedule these sessions since you would need to consider the preceptor's time commitments in addition to the staffing and availability of space within your facility.

Each design has its own benefits and limitations and you will need to determine what best meets your session objectives. However, you may find that as your program grows you may incorporate multiple variations of these instructional sessions to meet the wide range of program needs. PETA and GUTA programs are flexible and can be effectively modified to satisfy the constantly changing program needs.

Relevant Practices from the ASPE Standards of Best Practice [3] (Table 12.10).

Assessment Sessions

In contrast to the instructional sessions, assessment sessions can address how the learners apply their physical examination skills and techniques. In these sessions the participant performs the techniques and is then assessed based on how they were performed. This may be a formative assessment to allow for feedback and refinement, a low-stakes summative assessment, or a high-stakes summative assessment. Each format includes significantly different needs for training and quality control and can create challenges for insuring standardization is maintained. As with an SP assessment you must thoroughly evaluate the goals of the session and the available support from the faculty when designing the checklists associated with the assessment.

Table 12.10 ASPE SOBP

SOBP 1.1.1	Ensure safe working conditions in the design of the activity (e.g., number of rotations, number of breaks, physical, cognitive, and psychological challenges in the role portrayal
SOBP 1.1.2	Anticipate and recognize potential occupational hazards, including threats to SP safety in the environment (e.g. allergenic substances, exposure to sharps, air quality, live defibrillators)
SOBP 1.1.3	Screen SPs to ensure that they are appropriate for the role (e.g., no conflict of interest, no compromising of their psychological or physical safety
SOBP 1.1.4	Allow SPs to opt out of any given activity if they feel it is not appropriate for them to participate
SOBP 1.1.5	Brief SPs so they are clear about the guidelines and parameters of a simulation activity
SOBP 1.1.6	Provide SPs with strategies to mitigate potential adverse effects of role portrayal and prevent physical injury or fatigue
SOBP 1.1.9	Monitor for and respond to SPs who have experienced adverse effects from participation in an activity
SOBP 1.1.12	Manage client expectations of an SP's possibilities and limitations
SOBP 1.1.13	Work with clients to clearly define the expected scope of SP involvement in work assignments
SOBP 1.3.1	Respect SPs' self-identified boundaries (e.g., modesty, limits to physical touch, impact on person)
SOBP 2.1.1	Ensure that cases align with measurable learning objectives
SOBP 3.2.3	Provide SPs with strategies to deal with unanticipated learner questions and behaviors
SOBP 3.4.5	Ensure that SPs understand both the principle and receptive experience of any physical exam maneuvers they will be assessing
SOBP 4.2.2	Advocate for the integration of SP methodology into the curriculum where appropriate

Table 12.11 List of approaches for specific learner objectives

Refinement	Formative assessment
Practice	
Feedback	
Competency	Summative assessment
Identifying learners for remediation	
Course grades	

Table 12.12 Development flow

Physical only → Begin with checklist → Produce learner instructions
Full history and physical → Begin with case and instructions → Produce checklist
Focused history and physical → Begin with case → Produce instructions and checklist

For some types of programs, the graduates will face a high-stakes assessment that includes an SP or a PETA. In these situations, you must evaluate if one of the goals of your assessment session is to prepare the learners for these specific examinations. If that is one of your goals for this event you may consider structuring your high-stakes assessments in a manner that is consistent with those examinations to aid in reducing the anxiety your learners may face. Continuing Medical Education may also use PETAs or GUTAs as a means of providing a formative assessment activity. In these scenarios they may be asked to enter the room and gather information with a history and physical, or only with a physical exam, and the provider may also receive feedback after the session. If your program works with a continuing education program this may be another avenue where your PETAs or GUTAs can be utilized.

Similarly, to SP assessments, any assessment formats that use a PETA or GUTA can vary based on the program and the level of the learners. You can start to evaluate the format of your assessment in the same way you evaluated an instructional session. You would begin by deciding between a for-

mative and a summative assessment as this will rely on the program objectives and session goals as seen in Table 12.11. It is also important to consider if you are assessing only the physical exam skills, communication skills, clinical knowledge or a combination of the three.

Each of these will create a different demand on your instructors and will ultimately require different training approaches. You will also need to evaluate if you can utilize any post-encounter activity to better assess the learners. This may come in the form of a post encounter survey to provide feedback on the TA's facilitation and feedback or it may take the form of an activity that promotes further reflection and application of the information they gathered from the physical exam. For example, you may determine that a learner needs to write a post encounter note to be evaluated separately as a means of evaluating their clinical reasoning. This post encounter note may be used in combination with a checklist that your TA completes or may be evaluated as a separate piece of their assessment. Once you have selected an appropriate format for your assessment you will have a list of topics to discuss with your team to develop your assessment sessions. Alongside faculty, SMEs, and methodology experts you will begin to shape the training materials, checklists, timing, and overall evaluation format. Due to the large variation in assessment formats there are also a large variety of approaches to designing the materials to support the assessments. Your program may find it useful to begin your development with an idea for the content that is being assessed, create a case or learner instructions, and then proceed to creating a checklist to be used based on these instructions. Alternatively, you might decide to begin with creating a checklist of items that need to be assessed and build the case or learner instructions from there. This may be dependent upon the type of information being presented and evaluated as well, since if you are including a history you will require more detailed training materials and instructions. Having a development flow as seen in Table 12.12 to support your objectives contributes to a successful experience.

When beginning a new program, you will be relying heavily on the experience of the methodology expert and faculty members to determine the timing and preparation needed for students. This may change for each encounter based on the expected techniques that are being evaluated and the level of the learners. During this discussion you will also need to discuss your intentions for the development process and who has been delegated to perform which tasks. While many of the tasks require collaboration to finalize documents you must determine who takes the lead on which task and what the finalization process will entail. For example, you may choose to have your methodology expert create a case to meet the faculty's objectives which would then be sent to faculty for approval. The faculty may then develop the physical exam items for evaluation and create the checklist. You may enlist the SME to ensure the physical exam content and checklists look appropriate at this point. From there you may determine when the methodology expert is to be consulted to finalize materials and evaluate for missing pieces that will be needed for TA training and event logistics.

While producing the checklists that are being used for the assessment encourage collaboration to ensure they reflect the skills that are being assessed and are awarding credit appropriately. The methodology expert is generally the person who can evaluate a checklist for items that may be better assessed with an approach outside of TA assessments. For example, a TA checklist may not be the most specific measure of whether or not a learner is able to select the correct labs to run for a patient, however they may suggest a post encounter note to more effectively evaluate this skill. This suggestion can come from faculty as well, but since they are not experts in the methodology you may see excitement for new ideas to improve the program that require the collaboration of the team to implement. You must ensure your program allows time for the development process since this can require numerous iterations to reach an effective checklist for initial implementation. Once the process has been refined however, and once the team members have formed a strong working relationship and understanding it will likely be a smoother and quicker development process.

Once your materials have all been created and the checklist has been approved you must determine how the learner's scores on the checklist will be interpreted. If this is a high-stakes assessment you may decide to gather a team to create a cut score. There are many approaches to determining your cut score, but this discussion will need to stem from your objectives for the session and the type of assessment format you have chosen.

It is important to note that at this time there are limited examples of GUTAs being used for assessment purposes. It is slightly more common for a GUTA to be used in a formative assessment than a summative assessment, however neither is commonly used. This may be due to heightened

Table 12.13 ASPE SOBP domains: safe work environment, case development, training, program management

SOBP 1.1.1	Ensure safe working conditions in the design of the activity (e.g., number of rotations, number of breaks, physical, cognitive, and psychological challenges in the role portrayal
SOBP 1.1.2	Anticipate and recognize potential occupational hazards, including threats to SP safety in the environment (e.g. allergenic substances, exposure to sharps, air quality, live defibrillators)
SOBP 1.1.3	Screen SPs to ensure that they are appropriate for the role (e.g., no conflict of interest, no compromising of their psychological or physical safety
SOBP 1.1.4	Allow SPs to opt out of any given activity if they feel it is not appropriate for them to participate
SOBP 1.1.5	Brief SPs so they are clear about the guidelines and parameters of a simulation activity
SOBP 1.1.6	Provide SPs with strategies to mitigate potential adverse effects of role portrayal and prevent physical injury or fatigue
SOBP 1.1.9	Monitor for and respond to SPs who have experienced adverse effects from participation in an activity
SOBP 1.1.12	Manage client expectations of an SP's possibilities and limitations
SOBP 1.1.13	Work with clients to clearly define the expected scope of SP involvement in work assignments
SOBP 1.3.1	Respect SPs' self-identified boundaries (e.g., modesty, limits to physical touch, impact on person)
SOBP 2.1.1	Ensure that cases align with measurable learning objectives
SOBP 3.2.3	Provide SPs with strategies to deal with unanticipated learner questions and behaviors
SOBP 3.4.5	Ensure that SPs understand both the principle and receptive experience of any physical exam maneuvers they will be assessing
SOBP 4.2.2	Advocate for the integration of SP methodology into the curriculum where appropriate

concerns for a GUTA's safety related to the invasiveness of the exam. If your team is designing a GUTA assessment session you must ensure they are empowered throughout the session to pause the learner as needed for safety or sanitation reasons. The TA's safety should be one of your priorities and therefore you must ensure you are not putting them into a position where they do not have the control needed to ensure their own safety. Additionally, you may consider the use of feedback for a GUTA session as it is less common for providers to receive feedback on these skills once they are out in practice.

Relevant Practices from the ASPE Standards of Best Practice [3] (Table 12.13).

Training

The training techniques that your program develops will vary depending on which type of program you are developing and the content you are using. As mentioned earlier, when devel-

Table 12.14 Common approaches to training

Approach	Outcome
Orientation	Format, equipment training, and role expectations
Classroom	Content acquisition
Video review	Content acquisition – facilitation may be covered
Experience as learner	Content and facilitation acquisition and integration
Experience instructing	Content and facilitation integration, practice, and refinement
Observation	Content and facilitation integration

oping training techniques, it will impact the training materials that you develop. It is common for a new TA to have some experience observing sessions as well as performing the techniques in the learner role. In these cases, the TA can begin to develop a scaffold for their knowledge and can more effectively identify facilitation methods that are used in the sessions. This form of training also allows the new TA to begin learning the techniques in a similar manner to what the learners will experience. You may find that allowing new TAs to reflect on their experience can engage them in the facilitation skills quickly and may allow them to be more intentional with their facilitation techniques.

Both PETA and GUTA training often includes time spent with the material to learn in a simulated classroom setting. This may be dispersed throughout the training or it may be front loaded, but this setting encourages the new TAs to become familiar with their resources and to identify content that provides the basis for their sessions. This content acquisition is integral to your TA's ability to accurately portray information to their learners. You may find it valuable to utilize multiple types of training approaches to ensure the new TA has a variety of opportunities to process the information. A list of different approaches is provided in Table 12.14 to highlight some of the common approaches to training TAs and the outcomes that you can expect from these approaches. It is important for you to evaluate each approach as it may work within your program, however, consider the need to include time for questions and repetitive practice.

Common Approaches to Training TAs

You must also consider what context your TAs will be utilizing the information you are training. If they are instructing you will need to ensure you facilitate practice with the new TAs to engage with facilitation techniques for the format you have chosen. If you are using the new TAs for assessment purposes, you may find using a simulated learner can aid in practice with completing checklists or providing feedback. Regardless of the context in which the TA will be utilizing this information you need to provide them with a baseline

training on the techniques that they are responsible for knowing. Each type of session will then require additional training to ensure they are comfortable and confident with their skills in that format.

Once a TA has completed their training you will need to determine the amount of additional monitoring or quality control that is necessary for their sessions. For example, if you are using a paired instructor format you may decide to pair a new GUTA with a seasoned GUTA to ensure the students receive accurate and complete information in each session. Alternatively, if you are using a format where a TA is independent you may determine the most effective monitoring technique is sitting in the room or observing from a camera to ensure the sessions are performed to a satisfactory level. Another alternative would be having the new TA perform a simulated session for evaluation as a capstone for their training. In any of these formats your evaluation of the new TA should include the information they provide as well as the methods they use in instruction or feedback to facilitate further learning and refinement.

When TAs are used in an assessment session, whether formative or summative, the TAs must be prepared as they would for any other SP assessment event. This often includes additional training to ensure they are familiar with the checklist and the event process. You may also consider training to ensure a new TA can provide effective feedback for this event. For new TAs you will also need to ensure you have an evaluation process to retain the standardization throughout your group as the team grows in number. This may be in the form of a standardization or recalibration training at regular intervals, or with spot training when there are changes in content. If you are working with experienced TAs as well, you may find it useful to utilize experienced TAs to monitor newer TAs for facilitation and content feedback.

When training TAs for assessment purposes, evaluate their understanding of the process for intervening if they feel their safety is endangered. That may mean a student is performing an unsafe maneuver or a student has inappropriately handled their equipment which places the TA at risk of infection. No matter the reason, the TA's safety must be emphasized in your training and will require additional reinforcement depending on the format for each event. Many times, this is something that can be addressed without breaking the role of the TA. For example, it is acceptable for a patient to ask the learner to wash their hands before they begin a physical exam, and therefore the TA must feel comfortable doing the same. It may become more challenging when the TA is in the patient role for a more sensitive exam. For example, if you have a GTA who is portraying a patient for a history and physical examination they may need to engage with the learner by following along in a mirror to ensure the learner is performing exams safely. This is something that is not common for all patients, but it is a safety

measure that you may determine is required. In this case the learner's instructions may include the information reinforcing the mirror or the TA may be instructed to ensure the learner allows them to use the mirror before continuing with the exam. In any case, this is a point that should be covered within the training of the TA for that event.

Recruiting

> **Box 12.1: Recruiting**
> I was recruited by someone in my social circle to be a gynecological teaching associate about 35 years ago. My friend explained to me what she did, and I laughed for about 10 minutes straight! When I finally caught my breath, I realized, in spite of how bizarre it sounded, how much sense it made. The examinee could much more efficiently guide and correct the examiner, as opposed to an instructor, typically male, who had never experienced a gynecological exam. I observed a teaching session with third year medical students and was struck by the interaction between the paired GTAs, and the students: how supportive it was, how the feedback was delivered step by step, with the students adjusting their manual technique based on the constructive, real time coaching. I saw what could be at best an uncomfortable, and, at worst, humiliating, painful experience for a woman, being taught by paraprofessionals with empathy toward the learners, while instilling empathy for the patients as well. "Talk before touch," draping to ensure the patient's modesty and comfort, and exactly what internal structures the student was feeling at that moment—"Yes, that's my cervix, it feels like the tip of your nose, now lift it up with your fingertips"—were all conveyed in a matter-of-fact yet professional manner.
>
> Impressed by all this, I underwent the training and began teaching, witnessing and laughing with students who would occasionally jump up and down exclaiming, "Look, the cervix, I found it!"—like we ever expected them NOT TO!!!—and I had the great fortune to transition from being a practical instructor and standardized patient into a very satisfying and rewarding career path as a Standardized Patient Educator [K. Slawinski, University of Chicago, email correspondance 10/22/18].

A largely unique consideration associated with hiring PETAs and GUTAs is the liability associated with making the wrong hiring decision. Employing someone who is not medically suited for repeated physical examinations risks serious injury. Employing someone with inappropriate ulterior motives, or questionable character, risks potential legal consequences. Therefore, the recruiting, screening and hiring of your TA applicants should be conducted with great care and serious consideration. That is not to say the task is insurmountable, it only is to highlight that these aspects of hiring are a challenge for all programs. You may find the avenues you choose to recruit can have varying return on investment, and over time you will be able to identify avenues that are especially responsive in your area. For example, working with the local actors may produce very high quality SPs, but you may find the same recruits are more hesitant to instruct the physical exam. On the other hand, your local acting scene may produce numerous applicants who become invaluable PETAs or GUTAs. These avenues vary by location and therefore can be especially challenging when discussing recruitment areas with other programs.

Advance planning will be essential to conducting a successful recruiting campaign. Your planning begins by identifying the essential required functions associated with the position you are hoping to fill. Job descriptions need to be developed, with input from your team as the first step in the recruiting process. From there, you must determine the selection and exclusion criteria. Ensure all of the selection criteria match directly to one of the identified requirements listed in the job description. These must also be approved by your legal team to ensure you do not face a claim for illegal hiring practices. For example, you may choose criteria including education, past training or healthcare experience, previous work history/performance, physical requirements, personality traits, communication skills, knowledge of the PETA or GUTA job, personal invasive exam experience as a patient, and level of "personal body comfort". You also must ensure in both the job posting and the hiring process that all applicants understand that they are being hired for a flexible or part-time position.

Once the ideal recruiting profile is identified with the help of a comprehensive job description and screening checklist, consider the possible recruitment pool. You need to evaluate where you are most likely to find the best candidates for the position. To do this you must first identify what backgrounds you find valuable for these positions and then identify where to be your initial recruitment efforts. If you are beginning a program that is associated with an existing simulation program you may decide to begin by recruiting some of your existing SPs to train in this new expanded role. Another very valuable approach is recruitment based on word of mouth. When starting a new program this avenue is especially difficult since your word of mouth will rely heavily on first reaching an appropriate group of possible TAs. If you have any existing simulation programs it may be valuable to offer some encouragement for your current employees to incentivize recruitment for your new program.

Table 12.15 Recruitment

Avenue	Examples	Rationale	Possible challenges
Practicing healthcare professionals	Nurses, physician assistants, midwives, CNAs, doulas, EMTs, physical therapists, massage therapists	Already knowledgeable about the human body, may be comfortable with education regarding exams, may value experience for students	Working long shifts, may cross boundaries to provide information beyond the role of a TA
Students in the healthcare professions	Undergraduates looking to pursue graduate medical degrees, students in programs to become a medical professional	Seeking additional training and experience, motivated to learn and practice these skills	School schedules change with short notice, have a likely end point of employment
Theater and arts professionals	Dancers, actors, wardrobe designers and assistants, nude models for art classes	Tend to be more comfortable with their body, tend to work more flexible hours	Tend to remain busy and have short notice availability changes

This position is also distinctly different than most other employment opportunities. As such, you can expect to be recruiting people who do not have direct experience in the simulation field or with instructing physical exams using their own bodies. This will complicate your recruitment and screening process since you must then determine if the applicant understands the roles that are expected from them, and also must determine if their experience lends itself to a high probability of successful training and retention of the employee. Some valuable areas to investigate include local programs that include patient advocacy or education within their existing structure. Table 12.15 outlines some common avenues to begin your process of focused recruitment. It also highlights some possible challenges you may face with each avenue. You should note however that these are generalizations and will not apply to all people within that recruitment avenue and may not apply in your local area.

Recruitment Avenues

As with recruiting for any job, a marketing strategy will be important. Once you have identified the pool of applicants you might begin by preparing a poster or flyer for the position. You may decide to place them within your program or simulation center, career placement departments at local schools or offices, at job fairs, health fairs, or other recognized recruiting sources. You may also identify online recruitment opportunities such as your program's website, blogs, online job boards, and through emails to advisors and career placement specialists at schools in your area. Some online posting sites can be costly, but you may identify sites

that can provide broad exposure or may provide automated screening and candidate responses. Ensure that all recruitment materials provide clear instructions for how to find more information and how to apply for the position.

Screening and Hiring

As your recruiting efforts produce candidates for consideration, the screening process becomes critical for ensuring that you select quality candidates that meet the hiring objectives. You have already set a guide for your inclusion and exclusion criteria and therefore you can quickly evaluate your candidates with a standardized approach to application review. In this process you will hope to minimize the time and effort your team must spend on each applicant while accurately evaluating the applicant before their face to face interview. This may include measures that ensure the applicant is aware of the roles and responsibilities of a PETA or GUTA and if you have an existing SP program you may select a similar approach if it has been successful in the past. No matter the selection process you select it can be valuable to refer the candidate to your program's website or other resources to gather more information and develop questions that they may have during the interview process. Additionally, you may decide that a phone interview can provide additional information and serve as both a primary interview and an informational opportunity for the applicant. Finally, the actual face-to-face interview should be conducted utilizing a standardized checklist of questions. You should also document the interview responses and impressions and retain those records.

Given the unique nature of the PETA and GUTA roles it is common for applicants to have difficulty grasping the scope of the role. Despite all of your efforts, note that applicants can still get through the process with a core misunderstanding of the job requirements. To mitigate this misunderstanding, you may select some variation of demonstrating the role to applicants as a means of ensuring they are clear. To do this you may select a video recording of a live session, a scripted video of a simulated session, or provide the applicant with a live demonstration where they can participate in the session as a learner.

You also should consider the medical suitability either prior to the final employment decision, or in advance of the candidate's first instructional assignment. This may be done using the medical release form discussed in the document development section, but it may be assessed either by the candidate's own qualified healthcare provider or a qualified provider employed by your institution. Such medical suitability assessments are uncommon for PETA programs but for a GUTA program, limit the form to ensuring that the pro-

spective GUTA has the suitable genitourinary anatomy to represent a "well-woman" or well-male" exam and that there is no apparent reason that they would not be able to safely participate in multiple invasive exams during any single instructional session. Additional considerations should be taken for the role of the Human Resources department and the Legal department in the hiring process. Some institutions require a thorough background check while others will allow a more cursory review. The same is true for references that are listed during the application process. You should not overlook these resources. Your program will also need to ensure all of the process that your Human Resources office requires are followed and documented. Since these positions are inherently sensitive, ensure the screening and hiring processes are followed and records are kept throughout the process.

You also need to inquire about the selection criteria that can be utilized. For example, can your hiring practices place limitations or restrictions on employment based on the potential new hire's body? You may want a PETA that will instruct a musculoskeletal examination to have two functional arms and two functional legs, so what will happen if an applicant has experienced an amputation or joint replacement? The same concern would apply when recruiting for a GTA or MUTA position. These jobs require certain anatomy, so how do your facility's legal and human resources departments want you to approach this topic to avoid concerns about discrimination in your hiring practice? Since hiring can be impacted by physical findings it is also important to consider how your TAs will be utilized within your program based on their age and demographics. For example, when using a TA for instruction the goals of the session should be evaluated to determine if physical findings would be detrimental to the experience. Conversely, when using a TA for an assessment their physical findings must be assessed as a possible distraction that would impact the student's performance. You must plan for this in advance and be prepared to explain these limitations to possible applicants.

After you have made the employment decision and the job offer has been accepted it is important to ensure the new GTA or MUTA clearly understands, and agrees to, the performance requirements for the job. You may choose to document this consent with an individually signed formal agreement which may include the items outlined in Table 12.16. These items will often also be reflected within your existing policies and procedures manual.

Table 12.16 Employment agreement

A confirmed understanding of the GTA or MUTA job description
Compliance with the identified curriculum and protocols adopted by the program
Standardization of instruction
Delivering accurate, fair, constructive, and tactful learner feedback
Appropriate professional manner, and respect for the learners, during instructional sessions. Maintaining learner confidentiality
Standards of conduct, to include punctuality, dependability, proper hygiene, teamwork, adhering to internal communication protocols

Consult with your local Human Resources department to determine whether your PETAs and GUTAs need to be considered independent contractors or employees. Many institutions have several job titles within the two broad categories and their designation may impact your program significantly. There may be restrictions that your institution has put in place for certain employee designations. For example, you may decide there is value in having a PETA who is under 18, however your institution may require an applicant is over 18 and has a high school diploma. If this is the case, you must ensure you are aware of these designations before providing a job offer.

Cost

As with any new program design, there are expected costs associated with the creation of a program. Many of the initial costs exist much more significantly for programs that are independent of an existing simulation center. Costs associated with room or space usage, reusable supply purchasing, and program administration can be minimized if you are working within an existing structure that has these pieces in place. Even when expanding a program however, these areas must be considered since adding strain to your existing system may create challenges you must address prior to your program being fully implemented. The additional use of existing reusable materials is associated with increased maintenance or management costs and therefore even if you have access to materials it will come with at least a minimal overall cost. Another example is if your faculty contacts for the SP program already have significant limitations on their time, as you may need to identify alternate or additional faculty to work as your TA resources. Additionally, if you plan to utilize the same space as an existing program you may not have enough room or staff to run your current SP experiences simultaneously. Placing limitations on the existing programs

can be associated with costs for rescheduling, finding additional space, or collaborating with faculty to ensure timeline requirements are met.

The costs of implementing a new program also include the significant time and labor investment to ensure all TAs are appropriately trained for their position. Included in this training cost is the cost of developing the materials which includes the time cost for faculty, the methodology expert and SMEs. This also includes time and space for the training of the TAs. Additionally, you may choose to utilize a mock run of an event to iron out smaller details that may fall through the cracks when designing a program. This time and labor cost are significant; however, it is often only necessary with new programs or design changes. For example, if you are planning to instruct each body system in a small group setting over the course of an hour and a half, and this format will remain consistent for each system you may choose to only mock run a single system to evaluate the areas for refinement before implementation. The cost of these mock runs can be invaluable if you identify a significant challenge.

Another cost you must evaluate is the expected costs of the consumable products for each session. This cost can be estimated; however, it will also likely need to be evaluated after a few months to determine if your stock and ordering processes have ensured adequate but not excessive materials are available. You should also evaluate the means of storage for your supplies since this space may also be associated with some cost or maintenance. Also associated with this is the cost of maintenance for reusable equipment. For example, if you are purchasing stethoscopes for your TAs, they may need replacements, however this timeline depends on the quality of the supply purchased. In this example, you can note the incidence of usage of each tool to evaluate the replacement timeline.

If you are anticipating traveling, there are several costs that need to be assessed. For example, the cost of the supplies that are used in each session need to be considered. You may choose to bring the supplies with you, ship them directly to the offsite facility, or require the facility you are working with provide these supplies. No matter the selection, evaluate the cost of supplies to determine the way to purchase the quality supplies you want with the least cost to the program. In addition to the supply cost, you need to ensure you are accounting for the actual travel cost for the employees. The travel costs include airfare or mileage on vehicles, gas, hotel rooms, per diem costs, travel pay rates, and more. You may determine it is easiest for you to instruct your TAs to meet at the outside institution or you may require that they travel together in one company vehicle. Either way, the costs associated with that choice cannot be overlooked.

For each employee you should include the cost of any hiring procedures, their initial training time, the training materials they will utilize, and any time they are required to be present for a mock run of an event. Additionally, depending on the status of the employee within your organization you must identify if they qualify for benefits. These would each create a significant impact in the number of employees you may hire for these positions and therefore the number of sessions you can run at a single time. Some of the costs are dependent upon the TA's role within the organization as well, since you may be hiring an additional educator specifically for this new program. Any new employee's pay and a portion of the pay for current employees who are taking on additional duties must be included in the overall cost for the program.

As a whole, this is a significant cost input for the program. If you are only considering this cost however, you are missing the savings that are associated with implementing the program. The biggest cost savings rests in the reduction of direct faculty instructional time. In addition, it allows faculty to better spend their time with students to provide the context and application training to better prepare their students. When evaluating overall cost, it is well documented that a TA program is cost effective even when considering the oversight of the program [8, 20, 21]. It is also important to remember that depending on the program's design your program may provide new methods for evaluating the student's knowledge and application of clinical information.

Program Management

Managing a program that includes TAs may initially allow for similar management approaches when compared to an existing SP program. There are some significant differences however, since the SMEs must be consistently consulted when additional examinations are added and when new cases or checklists are developed. These differences may be something you deem acceptable to maintain your current program design or you may realize you must expand your program management team or approach. No matter the design of your program you must select options that fit your needs and the scope of your program. Most specifically, you may consider the quality assurance process for SP cases when compared to any PETA or GUTA assessments that you have developed. Each step of your management process may need at least a cursory evaluation for efficacy and optimization.

Logistics and Scheduling

As with an SP program, you will need consider the scheduling logistics based upon the client's demands. Some programs have

only internal clients and will need to plan based upon the number of instructors they have who are trained. Other programs have external clients who require additional scheduling considerations to include the travel and instructional times. In either case, you must consider the number of instructors you plan to train by evaluating what program constraints you have. If you have a small number of learners to take through a specific sessions you will require fewer TAs, whereas if you have a large number of learners that must go through a specific session within a smaller window based on their curricular needs then you will likely need to train more TAs. This evaluation should be considered when you are looking at cost as well, since the cost of training the instructors is relatively expensive.

You will also need to consider the method for scheduling the instructors. This may be based around a series of emails, the use of an online calendar, an online survey platform, or a program or app to collect the instructor's availability. Each of these approaches has its own associated benefits, but the costs can scale based on the scope of your program. If you are functioning within an existing program you will need to evaluate if your current scheduling processes are able to scale with this program growth. The point where an additional program is added to an existing program may be an effective time to update these processes or programs. Alternatively, if you determine the logistics will be able to functionally scale, plan to re-evaluate the functionality after a specific number of months to determine how the system is functioning. Selecting a new program for logistics and implementing a new TA program at the same time may be daunting but if you are utilizing the same staff by expanding the opportunities available for your SPs you should consider their experience and the necessary training needs. If you decide you need to update your program, or if you plan to hire a significant number of new employees to fill these roles, you may choose to implement a new scheduling procedure from the origination of the new PETA or GUTA program to avoid training new employees on the existing program if you anticipate a change will be necessary.

While evaluating the number of sessions you are scheduling in a single day, consider the rooms you have available for use as well as the time frame that they can be used. If you have 10 rooms, you may choose to utilize all 10 rooms for one type of session or depending on the program's requirements you may choose to run multiple types of sessions running simultaneously. One option may be to run two groups of five sessions for a high-stakes assessment. This may impact your ability to staff the events since you may have chosen to cross train your SPs. Another example for running multiple events is the very common pairing of GTA and MUTA events. You may opt to provide these experiences simultaneously to allow learners to experience both of the sex-specific exams within one day. In all of these cases when you are requiring learners to be present for more than one session you must consider both the TA and the learner's fatigue.

When scheduling sessions you must also consider the demand on the TA's physical health. For a GTA session for example, you may need to consider the instructor's menses and whether that interferes with the goals or objectives of the session. For all physical exams it may be important to consider the impact on the instructors that repeated exams may have. You may consider having a conversation with your TAs to evaluate what they are willing to instruct within a specific timeframe. You should also remember that TAs need to have opportunities for lunch and bathroom breaks. Additionally, some instructors may have existing medical conditions or physical findings that may limit the number of sessions they can comfortably instruct. These findings will need to be evaluated to determine if this instructor can meet the objectives of the session. During the consideration of your session scheduling, also consider the TA's ability to maintain consistent scoring and portrayal if there is a case involved. The importance of these pieces will vary, but still be considered for the safety of the TA and the consistency of instruction or assessment.

Once your daily schedule is finalized you will need to evaluate the number of TAs that you schedule for each shift. It is very common to schedule enough instructors to meet the event's needs, as well as a few additional TAs who are confirmed either on-call or to arrive and be released if not needed. These TAs should be able to work during the scheduled sessions if needed based on illness or cancellations. You may also find it useful to schedule an additional instructor who can fill in to allow breaks for the other instructors if this is a high-stakes assessment or an extended day. In these cases, having one floating TA to provide breaks for the TAs in the rooms can greatly expand the number of sessions you can schedule in a day without increasing TA fatigue or scoring inaccuracy. It also allows you to schedule more instructors than rooms available, which would minimize the impact of room limitations.

Recording Processes

You need to consider your facility's policy on filming during a learning experience. If you are developing your program within an existing program you will likely already have a policy for recording existing sessions. No matter if your policy has been approved or not you must ensure it is explicit about how that may apply to a physical exam session. Some facilities have capabilities to audio record only and will commonly record sessions for both session/content review and for instructor reviews. If your facility has the ability to audio and video record your recording policy may require alterations in the angle of filming or in the storage of the recordings based on the exam being performed. Strict access to the recordings is crucial to the safety of the instructors and learners. There are benefits to the ability to record audio and video, but it does not come without challenges.

Additionally, the programs may consider the extent to which their PETAs are using their bodies. Some programs require that their PETA instruct without a bra, however other programs have determined that this barrier is necessary for their student's or PETA's comfort. Based on this decision there are also implications regarding confidentiality. If they are not wearing a bra then any video recording of the sessions must be satisfactorily secure to ensure the PETA's videos remain confidential. To make these types of decisions you need to consider the goal of the sessions to determine which clothing would be appropriate for each session. You may determine that during a teaching session the goals require the PETAs to not wear a bra, whereas during an assessment you may include a bra as a challenge for the learners. The opposite might be true as well, where the bra is useful for practice however assessments should be performed as closely to the clinical setting as possible. This all depends on the goals you set for your sessions. No matter the choice that is made, this conversation must be had while determining the session requirements.

Attrition and QA

Since many programs hire instructors in a transient or part time capacity it is common for instructors to work multiple jobs or be involved in other activities that have fluctuating schedules. As a part of your recruitment you may consider the long-term investment in the employee, and the likelihood that they will remain with the program for an extended period of time. It is costly to have high turnover rates, especially in positions that require significant training. These expanded teaching applications do require specific and time intensive training and therefore the likelihood of attrition is a serious consideration as you hire new instructors. Attrition can impact the logistics of scheduling instructors significantly based on the size of the instructor pool. Common reasons for attrition beyond scheduling or logistical challenges include relocation, return to school, change to primary work schedule including retirement or finding full time work, or changes in ability or willingness to receive multiple exams including pregnancy, menopause, joint replacement, or new medical diagnoses.

You should also be constantly monitoring how the teaching and assessment sessions are running and how they are being received by the learners. Developing some form of internal assessment, such as a feedback form to be completed by the learners, to evaluate the quality of the sessions is a consideration. Learner feedback forms are useful to identify whether the learners felt well-prepared for the TA session. This type of form can provide information about how the TAs are providing feedback, how the TAs are facilitating, and how the learners are perceiving the quality of the sessions. It also allows for some limited quality assurance on the standardization of physical exam techniques. To evaluate the quality of a physical exam session, include a review of a recording at minimum and ideally would include a live observation of the instruction as well as possibly using a checklist or formal evaluation tool. While your programs may not require high-stakes assessments it is still valuable to ensure consistent presentation of the materials and standardization of the techniques being evaluated.

One way to create a formal evaluation tool would be to modify an existing list of content items that need to be covered in the session. This should have been developed when you were originally designing the program. Using this listing you can create a form that specifies what is to be covered in the sessions and how to evaluate the effectiveness of the session. You may want to use this to formally document the efficacy of new trainees by monitoring one of their sessions or having them lead a session as a dry run with simulated learners to formally assess their skills and content knowledge. You may also choose to use this as your own internal certification protocol. The formality of this type of process varies greatly across programs, but each option can be utilized independently for periodic assessments or consistent programmatic evaluation.

In larger programs, or programs that require more frequent training of new instructors, it may be helpful to consider the use of additional staff to assist or conduct the training of new instructors. You may select these additional or adjunct trainers based on experience or quality from within your existing program. Each program will utilize these adjunct trainers in their own way, and therefore you may find it difficult to extrapolate another program's standard into your own program. For example, some programs may determine they find value in certifying adjunct trainers before allowing them to train new TAs independently or with limited supervision. Other programs may determine they can allow these adjunct trainers to monitor practice and provide additional information but cannot perform the initial training. In either case you should evaluate how the curriculum is being used and ensure you are maintaining standardization within the group.

Orientation and Demonstration

No matter the design of the session, the orientation for the learners is paramount to creating a positive experience and learning. It is important to note that many of these sessions, especially for learners who have never performed an exam on a real patient, can be incredibly anxiety producing for the learners. With this in mind, the orientation is something not to overlook or undervalue. To determine the most effective means of orientation for learners you will need to evaluate what information they need based upon what they have been told by their instructors and what prior experience the cohort has with simulation. If you are working within an existing simulation program, they may need less orientation than a

program where they have not been exposed to this concept before. No matter their exposure however, they should still receive an orientation that covers the general expectations and timeline for their experience at the time.

Orientations generally include information about the structure of the sessions, what to expect from the instructors, timing, content to be covered, and a chance for the learners to ask questions. The learner's anxiety is also a topic that may be considered as an additional point for orientation and/or discussion however this would add time and would need space where the learners can congregate to have this discussion. Your orientation may take as little as 10–15 minutes or as much as 30 minutes but shouldn't be so long that it creates anticipation anxiety for the students. If the learners have experience with the format of the sessions you may consider shortening subsequent orientations, but the content to be covered and the opportunity to ask questions is still important to include.

Some programs prefer the use of a group demonstration as a part of the learner orientation. This is an important consideration when designing a program as this may be led by faculty and would require additional faculty time and coordination. This may be done within the course instruction in a classroom setting or it may be included as a part of the orientation process for a TA session. In either case, you must ensure the TA is comfortable with being a model for this type of demonstration since this role does not fall within the normal TA scope. You would also need to determine the need for space and supplies to be used in this demonstration. The logistics of this type of demonstration are often more challenging than they seem.

Conclusion

The Standardized Patient Methodology is applied in a variety of modalities beyond the confines of communication. Standardized Patients can be trained and utilized as educators in realms that reach beyond the traditional teaching and assessment realm. These expanded applications are rooted in the communication training to include the impactful training of physical examination techniques. This chapter provided points to consider when addressing expanded teaching applications for these exams.

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Human Simulation Beyond Healthcare: Experience, Reputation, and Relationship Building

13

Nancy McNaughton, Kerry Knickle, Denise E. LaMarra, and Lou Clark

Introduction

It is dark. A distraught mother sits on a park bench with the knife in one hand, looking at a picture of her daughter that she holds in the other. At 2 in the morning there is no one left in the park outside the bar.

When two police officers arrive, they yell at her to drop the knife. She does not respond. They say again- "*Ma'am, drop the knife*!" She is lost and does not respond.

Finally…one of them asks for her name. Nothing. He introduces himself this time and asks again for her name this time, with real interest. There is a lengthy pause and she says "*Jenny*."

"*What brings you here tonight Jenny? What's going on?*"

Now she looks up at him. Her grief and sadness are palpable. "*I've screwed everything up.*"

The officer stares. "*Screwed everything up…Like what?*"

"*I'M A TERRIBLE MOTHER*!"

The officer falters. "*No—you're not. Jenny, I want you to drop that knife…right now!*"

She glares at him through her tears. "*You don't even know me*!" She withdraws again.

> What if we could freeze time and go back into that moment with Jenny and give the officer a chance to try again? What if we could TIMEOUT and allow the officer to explore a different approach?

LET' S REWIND… to the moment when Jenny tells him her name.

She says, (as if for the first time) "*Jenny*."

"*What brings you here tonight Jenny? What's going on?*"

Now she looks up at him. Her grief and sadness are palpable. "*I've screwed everything up.*"

The officer sees her pain. "*Screwed everything up…Like what?*"

"*I'M A TERRIBLE MOTHER*!"

The officer pauses. "You think you're a terrible mother?"

She looks at him and dissolves into tears…" *YES! I screwed it all up. They took her away and now I have NOTHING. No Money NO Job NO place to live…*"

NOW… we have the elusive beginnings of rapport building This was not magic. It occurred because at a crucial moment, the officer repeated the SPs' words back to her in an open-ended question that allowed her to elaborate on why she is feeling the way she is feeling. This is as opposed to the first part of the exchange in which the officer makes an assumption and then commands Jenny to drop the knife. Jenny rightly answers with "you don't know me." By making the assumption that he can help Jenny by simply removing the knife from her vicinity and without needing to know anything about her or her situation, the officer alienates her from himself and shuts down the conversation.

This scenario was developed as part of a mental health communication course for law enforcement officers. It illustrates the power of simulation as an educational approach that affords learners an experience of deep learning through practice and reflection. This was one of four scenarios co-designed with an officer from their training academy in charge of course development. Professionals outside of the

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healthcare field also grapple with encounters that can range from the mundane to life altering and, like healthcare professionals, require safe opportunities to explore and practice their skills. Human simulation is increasingly being considered the methodology of choice. This is one of several successful projects that we will highlight as examples of human simulation methodology applied outside of traditional healthcare fields in this chapter. We will discuss and frame these examples with the concept of experience, reputation, and relationship building as applied to the simulation education profession.

Experience, Reputation, and Relationships: Establishing and Maintaining Collaborations

How did a law enforcement officer find me (NM) buried inside the Faculty of Medicine in a large university, and how did I manage to develop and maintain a strong relationship with their organization over time? Experience, reputation and relationships we have built over time are the foundations of our careers. Collectively, these are essential elements for successful collaborations in SP based simulation education both inside and outside of the health professions field and, really, for any profession. Additionally, throughout one's career—experience, reputation, and relationships are earned by you and may sustain you through professional challenges bound to emerge in any vocation practiced over time. No one can take away your experience, reputation, and relationships once you have earned them.

Specific to this chapter—reputation and experience have significance for projects with professionals new to myriad opportunities afforded by a well-developed human simulation methodology. However, the most important feature that we return to again and again is the creation and maintenance of relationships. Experience and reputation although important will carry you only so far if the relationships you create are not based in collaborative and respectful partnership.

You may come into contact with people outside of a health professions setting in any number of ways. Reputation for high quality work in one setting may spark interest in possible projects for others in different fields. They may find you by word of mouth as in the following example. Let's take a closer look at what we mean by these lynchpins.

Experience

The rich tapestry of experience that each of us brings to our work will inform the signature we leave on our project design and delivery. From our experience comes the flow and particularity of ideas that inspires unique perspective and cre-

ative ideas. The client looking for program innovation counts on this. This will eventually become a trademark that you build on year after year in concert with your reputation and relationship.

Similarly, the same strengths apply to administrative or technical initiatives, event planning and high stakes licensure exams for instance. Your early experience and missteps in these areas all dovetail to produce tried and true working strategies and approaches that position you as someone who has proven problem solving skills. What we might take for granted in ourselves may be seen as a rich resource of experience for the client.

Reputation

Deeply connected to relationship and experience, reputation is what will follow you throughout your career. You leave a lasting impression about how you connect and work with others in concert with the experience, skills and knowledge you bring into the room. "SPEs new to the field have asked me how I've gone about being hired as a consultant, and sometimes seem surprised when I tell them there is really no magic ingredient here. Most of my consulting work has come about through word of mouth. I'm grateful that professionals who I have worked with in various capacities have referred me for subsequent projects" (LC). People are less likely to give you direct feedback but will always share their opinions about you with others. This is a powerful factor in pushing you forward and holding you back. These opinions are almost always about how you preformed based on your experience and how people felt in working relationships with you.

Relationship

We **build** bridges…we **burn** bridges…we repair bridges, and in all cases, we are creating relationships that leave lasting and lingering impressions. The quality of our relationships will either inspire or deter others in trusting, collaborating, supporting and engaging with us. In the daily course of events we don't often pay attention to all the *possibilities* associated with relationship. Will that new face in the elevator be the project manager you will be working with tomorrow? Will the person sitting next to you at the meeting remember something you said and call you about a new idea? That participant in your workshop: by listening closely, are you inspired to collaborate on a mutual interest? Relationship is about the *how* of what passes between us. Memorable or forgettable impressions hinge on how we make people feel in both the short and long term.

Human Simulation Projects Beyond the Healthcare: Experience, Reputation, and Relationships

Law Enforcement: Building Long-Term Client Relationship

Over 14 years ago a police officer in charge of creating a week-long mental health course for her training college called to explore the possibility of engaging SPs for scenario-based encounters. The officer had heard about standardized patients from a psychiatrist who we had worked with for both clerkship OSCEs but also continuing education activities for practicing psychiatrists. Over the course of multiple telephone calls three potential topics for development were agreed on. The scenarios developed collaboratively addressed the challenges officers might most encounter and struggle within practice.

The development process was a collegial getting to know each other's professional fields, a large part of which entailed dispelling assumptions about how things ideally work in practice. For example, in the healthcare field clinicians are most often on their own turf – in their office, or clinic, or hospital – even ambulance. Patients are most often invited (or brought) into the health professional's environment many times the result of an appointment. Also, healthcare professionals are often surrounded by familiar equipment, people, and resources. Police officers on the other hand are most often in someone else's environment and must remain vigilant about signs of threat – environmental (e.g. other people, dogs), personal (e.g. weapons, size and weight of a person, potential medical conditions)—in order to maintain safety for everyone while carrying out an effective plan. Inherently unknown elements of a scene require integrated communication skills together with an array of use of force options such as tasers, pepper spray, batons, and firearms.

One collaboratively developed scenario was about a young, unemployed fellow who has returned home with his new girlfriend following a party. While in the kitchen he starts talking incoherently, yelling and throwing things at invisible people. He is having a psychotic break. In the scenario the girlfriend calls the police, two of whom arrive to find her very upset and anxious and the fellow sitting in the kitchen with a knife on a counter above his head, in distress and muttering to himself. The task for the officers is to assess the situation, make a plan to assist and begin implementing the plan.

In the world of healthcare simulation a psychotic patient of this kind, depending on the level of learner, might be directed to escalate in his behavior—stand up; perhaps put a chair over his head, thereby forcing a response that requires problem solving and decision making not to mention ability to implement a plan. In designing the scenario with the law enforcement colleague however, most behaviors that were suggested were met with her response – "There is the risk that officers would opt to use force rather than communicate". Many suggestions about how to advance the scenario were met with this three-word response which would ultimately defeat the larger goal of improving officer communication alongside use of force options. Officer safety and the many legal considerations that—in the law enforcement field—justify a use of force option over a communication response had to be considered. This collaborative process provided a rich learning opportunity for both parties about law enforcement principles and practice as well as the educational possibilities of simulation.

Considerations

While the modifications we worked out over the course of our collaborative interactions enriched the learning experience for participating officers while maintaining a level of challenge that met educational needs consideration had to be given to the safety of our SPs and all the learners taking part in the sessions [1, 2]. Safety is a critical concern that permeates many aspects of a human simulation methodology especially when new projects are initiated with clients or organizations. Many people who do not work with simulated participants may have little understanding or erroneous assumptions about the possibilities that human simulation present. ASPE's Standards of Best Practice (SOBP) [3] document represents the integrity and maintenance of quality of human simulation and acts as a valuable resource for educators. In our work with the police it was stated in orientation that they were not expected to lay hands on the SPs or employ any use of force options during the scenarios. Communication was the focus of the learning. We also made it clear that the officers would be stopped if they moved to put their hands on the SP – either to place in handcuffs or to subdue by taking them to the ground. If we saw a move in this direction a whistle was blown and Time-out was called in order to discuss the officers' problem solving, decision making and plan of action. We worked in tandem with Police officers whose focus was on the safety aspects of performance while ours was on communication.

The training college is still using this scenario after 12 years and with hundreds of officers across all levels of training. We have been invited by the College to present our work at conferences dedicated to Crisis Intervention Training and continue to have a robust relationship with the education development team. It was our ability to bring the best of our knowledge and experience from different fields to our conversations and to listen to each other about the ways in which we needed to adapt in order to enrich learning. The scenario

at the top of the chapter emerged from this law enforcement experience and has also been successfully developed for ongoing use.

The law enforcement story exemplifies an opportunity that began as a possibility between two interested parties based on informal connections and the positive reputation of simulation and SPs in the community. What were the essential ingredients that eventually spawned a 14-year relationship? Reaching out to arrange contact is usually informed by how a person's contact information comes to you. An organization or individual may reach out to you, often indicating a level of interest which is always promising. There are benefits when a contact is generated by the client or the client organization. A client instigated contact resolves or eliminates the "cold call" features associated with generating an introduction via phone, email or face to face. The client instigated contact suggests more than a casual interest; in likelihood based on the client's research and subsequent confidence in you or your institution's simulation reputation, word of mouth, and ability to meet their perceived need. There is a shorthand in place when a client takes the time to inform themselves enough to know that they want to call you. You may feel more comfortable in this instance, being in the position to answer questions and share information that supports and drives the conversation to the next phase. Here, an opportunity exists for you to:

1. Explore the client's ideas and expectations
2. Acknowledge and enhance the client's current understanding of simulation methodology and its potential for practical hands on teaching and learning
3. Explore creative curriculum design options that build and further their current ideas.
4. Clarify any misconceptions and assumptions about what is and is not possible with simulation and advise the client whether or not simulation is the best option for meeting their needs.
5. Build trust and transparency through a collaborative process.

Conversely, you may have a referral, business card or a vague contact that requires follow up. This may be more challenging, requiring a deep breath and a cold call. In either case this is initially an unknown relationship and the potential for building the connection sits with you and your instincts. Likewise, it is important for you to do your homework about a new client or organization. Not unlike preparation for a job interview, the more information you have about the individual or company's interests and how simulation may be an asset will be helpful in your early contact preparation.

Experience as an Asset: Managing Expectations

Managing expectations is a critical element in building a successful relationship with your client. Clearly understanding the client's ideas and expectations from start to finish will ensure that you are collaboratively building a contract with a shared perspective and understanding related to design, objectives, scope, safety, costs and deliverables. This clarity impacts and informs confidence, trust and transparency, all earmarks of professional relationship and reputation building.

Some clients may not have much experience with SPs or simulation but have an innate respect for the fact that new programs take time and the insight to know what they don't know. This lack of knowledge of all the moving parts involved may lead others to have unrealistic expectations about the time involved from conception to execution. Below is an example of the value of exploring and working with a client's ideas and expectations.

Managing Staff: Organizational Development Simulation

Managing staff performance is perhaps one of the most difficult challenges many professionals face. While there is no shortage of articles on best practices and competency models, learning how to have an honest and difficult conversation with an employee is a skill that must be practiced in order to be developed. In 2010, the SP Program based in the medical school of a large academic medical center partnered with the organizational development arm of Human Resources in order to train health system managers how to address and guide employee behaviors.

Initially course directors requested only an exam-room space for role-play practice among employees. SP educators capitalized on this request by explaining the benefits of SP methodology. A neutral, controlled environment in which the participants and SPs do not know each other provides a level playing field and an ultimately standardized experience. SP educators worked with course directors to develop the logistics for the day. The day began with a didactic presentation on best practices in performance management was delivered in a large classroom with 24 managers over the course of 3 hours. During a lunch break, an SP staff member prepared them for the SP interactions in the afternoon.

Each manager received a package with the three scenarios for the day: a nurse manager with "toxic superstar" qualities—a strong care provider who can be too brusque in interactions with colleagues; an intensive care unit (ICU) nurse who does the bare minimum job requirements—not a "team

player;" and a patient service representative who has a great attitude, loves her job, but due to suboptimal performance, previously had some key job responsibilities taken away.

All the communication skills challenges were designed to be high-level—that is, requiring more than standard disciplinary language or basic instruction. Another common thread in all three cases was a requisite knowledge base, whether clinical or technical, that needed to be created for SPs (lay persons) to portray realistically. Health system managers ranged from clinicians and technicians to administrators and facilities personnel. During orientation, participants were reminded to focus on the interaction, not on facts or background that would be beyond their scope of practice.

The approach to measuring the behaviors of managers in these sessions was based on concepts of objective structured clinical exams for medical students. The same checklist principles applied: observable, measurable items that are distinct from each other are used to assess whether certain events occur. A checklist guide accompanied these binary or yes/no checklists, providing sample phrases that could earn credit. SPs were trained to understand preferred behaviors and the intent of each question or comment. This ensured the SPs were scoring consistently and accurately. One item, for example, is "Any question about your overall approach to task completion, either on your own or with others? Sample phrases: 'What do you do when you can't finish all your tasks at the end of the shift? What do you do when you need help?'"

A separate instrument assessed *how* managers approached an interaction from a communication and interpersonal-skills perspective. For these behaviors, similar to medical student encounters, a 4-point Likert scale was used. One example: "Listens with Empathy; reflects, paraphrases what SP has said; responds to SP's non-verbal behaviors."

Managers were provided the equivalent of a post-encounter write-up, in the form of a self-reflection exercise. One sample question: *"Is the problem with this employee stemming from a lack of motivation or ability? Explain your response."* All assessment items, manager exercises and SP feedback were aligned with the curriculum managers received at the beginning of the day. SPs had a feedback guide for each case. So, during the course of each encounter, they are mindful of certain behaviors for which to provide feedback. An example of a prompt that guides SP feedback is: *"Did the manager give you an opportunity to present your side of the story or simply dictate what the problem is, or what s/he has heard/observed?"*

Now, offered on nearly a monthly basis since it was implemented in 2011, the course has served more than 2000 managers at the time of this writing. The program evaluation data is overwhelmingly positive, though a more thorough study of impact is warranted. When asked what they enjoyed most about the experience, participants' responses on the program evaluation survey consistently included phrases like

"real-time feedback; getting to practice and apply the knowledge learned; active learning – awesome; I found it very valuable to have participated in multiple, employee-specific scenarios. We were able to experience three very different personalities. The actors were wonderful."

A newer program that is in development at the time of this writing is a collaboration between our SP program (DL) and the university's Graduate School of Education (GSE). SPs will work as standardized professionals to portray parents and teachers to develop and gauge professional judgement and leadership skills of Philadelphia school principals. The structured, timed encounters will require principals to address the racial elements of a violent encounter between two students. SPs will complete checklists and provide feedback. Principals will complete pre- and post-assessments that include reporting of attitudes and approaches in dealing with such situations in practice. We will follow up to determine if they applied any of the lessons to real-world situations.

This project began with a bit of Internet research and a "cold call" to the GSE's head of Educational Leadership Simulations Program. This came after learning of an ASPE colleague's work in another city. After several months of research and brainstorming sessions, we successfully designed a project that earned us an ASPE research award to fund the work. "Do what you love, and the money will follow" is an adage attributed to author Marsha Sinetar [4] who wrote a book by the same name. Recognizing that time is a precious commodity, SP administrators need to be creative to get their day jobs done while pursuing extracurricular interests.

This project exemplifies the culmination of experience, reputation and relationships leading to innovative work. Experience enables us to see parallels between existing programs and yet-to-be-developed ones. Relationships with counterparts at other institutions allow us to "stand on the shoulders of giants," building on others' previous efforts and discoveries. Once a program is established—that is, you have successfully implemented SP assessments—your reputation precedes you, facilitating the solicitation of new clients with whom you've had no prior contact.

Clear expectations for a project will inspire discussions about best practice simulation design approaches. These discussions are highly contextual to each client. Your experience is key in discussing learning objectives, size and scope of the event, content, structure and delivery mechanisms, innovative design options and their impact (numbers/small group/large group, time outs/ fishbowl/demo vs engagement/ human simulation vs video, observer benefits) in order to properly meet each clients' needs. The example above elaborates for us the degree to which knowledge and experience with various SP based practices can contribute to learning activities. Rather than a one-time role play exercise the application of simulation principles turned this session into a

scholarly exercise. The learning was enriched through standardization of delivery, scenario development attuned to the level of the learner, and performance rubrics that were aligned with the client's objectives providing important information.

Educating the Client: Experience as an Asset

How much does your client know about simulation? A client's simulation knowledge will affect the scope, objectives and expectations for an initiative. Until their level of knowledge is clear to you, it may be difficult to engage the client in imagining the possibilities and exploring options. Keeping a respectful pace with the client's readiness to learn may mitigate the problem of lagging behind or pushing too far ahead in exploring ways to achieve their vision.

It is important to find ways to check in and ask questions that will give you insight into people's assumptions. This is essential to optimize project design, maximize learning and ensure a safe work environment for learners and SPs which is a key aspect of The ASPE Standards of Best Practice.

Faculty of Social Work: A Case for Education and Knowledge

Simulation within a Social Work Faculty began as an untested and tentative initiative. Investment of time to build a common understanding about simulation as an educational approach was necessary as this group had ideas about human simulation from previous experience which ran counter to what we now know to be foundational to best practice. Conversations about how it might benefit their learners and a reality check on associated costs for each project were required. Understanding the client's professional frame was also critical. There is a specialized body of theory that informs the field of social work. We didn't need to study this literature however it was helpful to be familiar with the basic tenets of their program in order to build trust and create a mutual understanding about what each party could bring to the conversation. It was not all smooth roads and sunshine. Some requests made by the client for SPs of particular ethnicity or background inspired difficult conversations about the associated risks of perpetuating stereotypes. Respectful, transparent conversations about simulation design and the importance of aligning learning objectives with portrayals were key factors in what has become a flourishing, trustful simulation partnership. Collegial conversations have resulted in a productive relationship that grows and continues to this day.

Knowledge

As we can see from this story many clients come to the table with some understanding about simulation that ranges from novice to advanced. Our responsibility as educators is to explore a client's depth of awareness and possible assumptions in order to properly determine how to best meet their needs. It is not a one-way street. We also need to inform ourselves about the knowledge and principles that underpin our client's practices.

Veterinary Simulation

We had [Introduction to Clinical Veterinary Medicine] courses; at that time there was a course in the first year where there was time allocated for learning how to take a history. The people who were teaching this had no background in communication skills training; it was rudimentary [so] I asked, 'can I have this time? We will cover history-taking but also teach communication skills.' I nabbed the time for lecture and student role-play. That was the easiest spot to grab. It already existed in the curriculum; I just re-purposed it. So, we went from lecture/role play to simulation.... Kathryn Michel, B.A., D.V.M., M.S., MSED, describes how standardized clients began in the Penn School of Veterinary Medicine.

Veterinarians require communications skills for similar conversations that occur in medicine, not with the animals but with the owners. SPs may be asked to take on any number of roles not dissimilar to the difficult patients they may portray in health professions scenarios. Just as in medical education, SPs need to have a certain comfort with specialized language as well as rudimentary knowledge of the norms related to veterinary practice in order to be able to provide feedback that is meaningful. For example, in one instance, small groups of four students practiced interviewing the owner of an ailing horse. SPs had to be familiar with language related to owning and maintaining horses. The students had a specific communication model they were working with in which each student focused on one specific behavior or competency (e.g., non-verbal expressions of empathy, questioning, etc.).

Setting/Context

For professionals who work outside of healthcare the need for specialized equipment must be taken into account. Scenario design thinking must include necessary props or explain the absence of essential elements. For example, veterinary students might be speaking with a client whose pet is in the recovery room following surgery to explain their absence in the scenario. Just as we want learners to portray

themselves as professionals in simulation exercises, we also want them able to interact with their surroundings realistically. Attention to setting as with all simulation design is tied to the goals of the simulation itself. If the environment does not feature as essential for the learning do not invest the money and time in creating it. Fidelity and its relation to learning is an important area of research within simulation-based education and worth reading about if you are new to designing simulation scenarios [5, 6]. SP educators work in many different settings with varying organizational or institutional structures of support. Access to proper equipment is one consideration. Does the client have simulated props that learners are familiar with? Other considerations that result from being "offsite" include access to contact information, phone numbers, transportation and possibly supports for debriefing of SPs. One of our SPs was portraying a homeless person for a mental health simulation in a local mental health institution and was barred from the facility by a security guard. The client was wondering why the SP was late and the SP was trying desperately to tell the security guard to let her in. This was before the days of cell phones. They eventually found each other however, we learned from our experience.

Educating Ourselves: Turning Experience into Relationship Opportunities

For years I (KK) had been yearning to somehow credential myself in the area of conflict resolution. I had searched for university and college offerings in my immediate area without success. Through my search I eventually discovered a certificate offering in Dispute Resolution through the School of Continuing Studies at a large Canadian university. During this time, I was working with the SP Program at the University.

In one of the five course offerings, Mediation Theory and Practice, the faculty lead engaged the class in a role play activity. We were each given a role and asked to work in triad with a mediator role player to explore tenets of the mediation process. As a participant in the exercise I was struck by the slightly wooden quality of our portrayals as we tried to manufacture the anger and frustration that the scenario required of us. The learning stakes seemed relatively low as we all tried to be adversarial with our fellow students, many of whom had just enjoyed a break together. It occurred to me that simulation could be a wonderful educational asset in this course. I approached the faculty lead and asked if we might meet to discuss this. She was curious and amenable, and over coffee listened to my impassioned presentation about the merits of simulation and the benefits of experiential learning. She was absolutely committed to improving any and all aspects of the course and saw this as a worthwhile pilot. As a

student in her program I had great admiration for her command of the material and approach in class. I also had a sense that she was someone I wanted to stay connected to beyond this certificate program.

As a result, we worked together to further develop the mediation scenarios for the SPs. We arranged training sessions and introduced human simulation in the next iteration of Mediation Theory and Practice. The response from the students was overwhelmingly positive, reporting a high level of investment in the practical learning process. Simulation became an official part of the curriculum during the years the program was offered. The relationship I forged with the faculty lead around simulation led to other gratifying projects. We formed a long-standing partnership; creating and delivering a new Conflict and Communication course offering for the School of Continuing Studies. She was a lawyer by profession and her burgeoning interest in human simulation led us to another initiative with the Crown Attorney Summer Training program. We created a multiparty Victim/Offender scenario that included the victim's mother, the high school principal, the offender's father and high school coach to stimulate discussion and highlight mediation as a viable option to incarceration. Again, the feedback was very positive, and more projects followed. We presented another victim offender simulation at the Victim Offender Mediation Association (VOMA) conference concerning theft over $5000 in which two brothers dispute their mother's dwindling assets, only to discover that the younger brother had been living in her home with his demanding girlfriend, and forging cheques from her estate while she lived in a nursing home. This provocative demonstration paved the way to an introduction and collaboration with a local office of Conflict Mediation Services. My involvement in this organization was formative; it allowed me to further train and co-mediate parties in dispute, and most importantly became my internship organization when I was accepted into my Master of Law School program. This is a reminder that many situations (if not all) hold rich possibility for relationship and exploration that nudge us in a slightly different direction.

Simulation: Turning Relationship into Experience

During my Master of Law program there was much peer interest in simulation, and I was invited to deliver a conflict workshop for faculty and first year master's students in their Alternative Dispute Resolution course with simulation as a key feature. This experiential opportunity was an exciting new idea for law; with simulation we were raising the "bar" so to speak, beyond the traditional peer to peer role play. My colleague (NM) and I simulated a collegial conflict for

students and faculty with a planned altercation at the outset of the session. This is how it begins.

The students and faculty are waiting for the session to begin. I am at the front of the room and tell the group that I am waiting for my colleague to arrive; that she is running late. They sense my uneasiness. I apologize and tell them we will start as soon as she arrives. Minutes pass and finally my colleague rushes in flustered and upset. She apologizes to the group but proceeds to share how she didn't have the right location and accuses me of not sending her the proper directions which I deny. I try to calm her down and her frustration escalates. In this exchange things deteriorate quickly and career wildly out of control. Both faculty and students are all extremely uncomfortable and some actually now are not sure if this is real or a simulation; believing that my colleague and I are at bitter odds as she in a fury, leaves the room with me stranded in front of a class full of stunned participants. I fumble and apologize and, unable to collect my thoughts, rifle somewhat helplessly through the handouts. The silence is deafening. It seems like hours, but a few seconds later my colleague returns and says, "this was a simulation". The room heaves a collective sigh, some uncomfortable laughter, relief…and we debrief. During the debrief it becomes clear how powerful the experience is for everyone involved. This particular session was well received and perceived as groundbreaking. I imagine there was some word of mouth that followed these sessions. This particular presentation has become a requested part of our collegial conflict workshop that we have conducted all over the world.

After graduating, my relationship with my professor and other faculty members remained strong. A definite association and lasting impression regarding the impact and value of simulation lingered. Soon there were requests from law faculty to recruit our SPs to portray scenarios depicting lawyers communicating with challenging elderly clients. The outcome for the initial law society project was well received and continued. Again, word of mouth about the process and development and the SP's professionalism played an integral role in advancing the turn of events.

As a result, five years ago, I received a call from a lawyer who was developing the "Certificate in Elder Law" for a large Law School's Professional Development program. We met and subsequently developed a strong scenario and interactive module that looked at elements of dementia, consent capacity and coercion. The objective was to cover required case content and respond to complex nuanced behavior of the elderly client. It began as an offering for law but based on interest and demand has since opened up to a wider audience to include security enforcement, psychiatry, social work, emergency health care professionals and beyond.

As we see from the trajectory described above, we can use our experiences as opportunities to both extend our own learning and to use our new knowledge to inform our experiences and relationships in beneficial ways.

Reputation as an Asset: SP Methodology Applied to Architecture

A relationship with a provincial architectural association began in late 2010 when our client partner, who had already engaged with us in previous mediation and law initiatives, introduced us (NM & KK) to the president of the association. A need had already been identified within the organization concerning existing contractual and interpersonal tension between three parties; the architect, client and contractor. The client was looking for education delivery and design in the area of conflict and communication skills. This is an example of how reputation and experience serve to facilitate next steps for new innovation, especially when simulation is a brand-new concept to the professional discipline.

Following our introductory meeting, we set out to research and design a full day experiential workshop that would be meaningful and relevant to an audience of large and small architectural firms who wanted to examine the benefits of effective communication techniques, conflict resolution skills and engage in hands on practice though simulation. We asked ourselves: What scenario might be common across the experience of all members of this professional group? Determining the learning objectives and creating a realistic context with details designed to challenge those objectives is always a rich part of the development and design process. After much discussion and in consultation with all stakeholders we created the following situation that included the three parties:

> An architect, client and contractor are preparing to meet to review the status of construction of a 1915 three story factory building and to discuss emerging problems. Due to settling of the foundation, the contractor has discovered that a portion of the basement floor is sinking. A design modification is needed. Additionally, the original solar panels for the roof, specified by the architect were costed and delivered. The owner has rejected them and has now selected alternate panels based on aesthetics – and it doesn't meet the performance standard of the architect's original recommendation. The contractor is stuck in traffic and will be late for the meeting.

The SPs were recruited and trained for each of the roles (architect, contractor and client) and briefed on the learning objectives. It was also critical to familiarize them with the contextual elements and professional expectations and the day in day out experience of the architect, contractor and the client.

The simulation design was to start with the presentation of the scenario as a flawed demonstration, where tension between the parties builds as a result of ineffective

communication behaviors. A time-out would be followed by a facilitated debrief with the audience. So, this first stage of this simulation activity utilized SPs as structured role players with one another for the benefit of an audience of learners, (*please see Chap. 5 on The Human Simulation Continuum: Integration and Application*). This discussion provides time for the participants to reflect on what happened, how the encounter might be improved. Then an audience member is invited to take on one of the roles and re-engage, employing more effective skills and techniques. The next debrief is an opportunity for the large group to further identify what they appreciated seeing their colleague explore and how the interaction improved as a result. The response to this session was extremely positive, and we continued to offer this simulation-based workshop as part of their professional development curriculum for the next five years. Participants reported feeling that the interactions they had with the SPs represented their day to day challenges with Contractors and Clients and that it was so realistic they forgot they were in a simulation performing in front of their peers.

Relationship Building Benefits for All

Military Chaplain Suicide Prevention Training: Experience and Relationship

I was thrilled and terrified (LC). Thrilled because this was a singular opportunity that would have a tremendous positive health and social impact if implemented well. Terrified because this would be the single, largest and most complicated simulation event I have helped create to date and I wanted to make sure it would be implemented better than well—the best it could possibly be implemented. At the time I was a new faculty member with the simulation center at a large university health sciences school. During my first year on the job, I was invited by a colleague to co-create a training program to include standardized patients that would become one of the most significant and rewarding experiences of my career. The purpose of this training was to support military chaplains in the United States Navy and Marines stationed around the world to better counsel service members at risk for suicide. This project included being a co-principal investigator on a sizeable grant from the United States Defense Suicide Prevention Organization. Along with being a significant and rewarding project, it was an incredible professional learning experience as our team quickly realized that it would take a sizeable group to see the project through to completion at the highest level of quality. The experience was also humbling as more than 50+ people on our collective teams worked alongside one another including colleagues, military chaplains, the SPs and our SP Education team—

(SPEs, SP Recruitment & Scheduling Manager, Administrative, and IT staff). As an added bonus, the faculty member and project lead who invited our team to join her in this endeavor and I developed a meaningful professional relationship and lasting friendship. How did this happen?

As a new faculty member, I was fortunate to have the support of our Associate Dean of Simulation. He was not shy about promoting my reputation and experience as a simulation educator when I first arrived at the university. This set me up to have meaningful introductory meetings with other stakeholders around campus including this faculty member and project lead.

In the months following our first meeting, we found ourselves often discussing our shared work, our professional goals as educators, and even occasionally found time for informal lunch chats off-campus at the local deli. I appreciated that on every visit to the university my colleague/project lead thanked the members of our SP Education team who made the routine simulation activities for her course possible. I watched as she treated her doctoral students, teaching assistants, and colleagues with the same level of respect as she showed to our team. No matter what the role or official position or title, she treated each colleague with the same consistent level of esteem. This made me want to continue to get to know her and work with her further—in other words, to continue establishing our professional relationship.

The Origin of the Military Chaplain Project

The Chaplain grant, already in development by my colleague who is an expert on suicide in the military, was suggested to me by her as a mentoring opportunity. I jumped at the possibility of continuing to collaborate with her and to support what would be a new learner group at the simulation center. Over the next year and a half, we entered into a mutually beneficial partnership that would support addressing the significant issue of rising suicide rates in the military. With our many team members including SPs—we co-designed, pilot-tested, and implemented this project for military chaplains to better counsel service members at risk for suicide. The resulting training developed is 5 days in duration and includes the following human simulation components: A video SP case utilized during learner orientation, 4 pre-training cases to assess learners' counseling skills at baseline on the first day, 6 formative cases utilized to practice new counseling skills introduced during the 2 days of didactic training on the fourth day, and 4 post-training cases to assess learner skills on the fifth and final day of the weeklong training. So, in total, 15 SP cases that we developed collaboratively over the course of a year with special considerations for a project developed for participants outside of healthcare training.

Project Description: Military Chaplain Suicide Prevention Training – CARE Program

The five-day training program centered around 8 didactic modules developed and taught by the project lead. All the simulation events, (except the baseline event were designed in keeping with objectives related to each of the 8 didactic modules. The list of the 8 didactic modules is below, and the breakdown of the objectives for module 4 – Regulating Emotions to Control Suicidal Urges follows as an example. We also feature the corresponding formative simulated service member case—Michaela Lowery (Appendix 13.1)— as one of the cases for the chaplains to practice the new counseling strategies and skills they learned in the didactic modules developed and taught by my colleague, the project lead.

Considerations Specific to the Military Chaplain Project: Rooted in Relationship Building

Case Development Logistics

Case development for the Chaplain Project was team-based and dependent on successful relationship building among the more than 20 co-authors. Additionally, we had input from our project lead, (a faculty member in Clinical Psychology at the university), other clinical psychologists, social workers, and military chaplains along with the SPs who helped us pilot test the cases. In creating these cases we had both logistical and content considerations to keep in mind. Logistically, we had to consider the time involved to create the 14 cases in addition to the 1 video case used for the orientation. We also needed time to pilot test each of the 14 other cases. Our schedule to do this wound up spanning nearly a year in order to space out the work around the many other projects at the simulation center and university. This turned out to be positive in terms of having time to hone the cases before participant use. We used our simulation software to record each pilot test session and recorded our discussion about how the case worked after each encounter. Learners were played by either a Navy Psychologist or a military chaplain from the Pentagon. The simulated service member was played by an SP already cast for the actual event. Figure 13.1 is a photo of a simulated Learner and SP during the pilot testing of the Lowery case.

After each pilot test encounter, we averaged about 45 minutes in discussing our experiences and observations and in every situation, we made edits to the cases. The SPs were crucial participants in this process and their feedback is how we realized we needed to specify where on the suicidal ideation spectrum their service member character fell. Additionally, we learned experimentally, whether the scenarios served the learning objectives. While this is a routine process in case

Fig. 13.1 Photo of a simulated Learner and SP during the pilot testing of the Lowery case

development, the significance here cannot be overstated because these were all emotionally challenging cases. For example, in pilot testing these cases we realized we needed a method of ensuring the SPs actually explicitly stated that they were suicidal in each encounter. In some of the pilot encounters, for whatever reason, SPs did not feel comfortable or felt their character—as written—would not articulate this. If the SP did not state this, then the chaplain would be at a loss having the opportunity to counsel the service member fully. So, we accounted for this in the training process and found ways, in each case, for this to happen organically—often at the suggestion of the SPs. Additionally, and in keeping with the ASPE SOBPs, we wanted to ensure that the scenarios were as authentic as possible prior to training and usage so that we could support the emotionally and psychological safety of the SPs and learners by not having unwanted surprises unfold in the actual encounters. We were successful on this front, which led to smoother and more productive training sessions with SPs and event days with the SPs and chaplains.

Development of Case Content

In addition to the logistics of creating the cases, the content was different than our norm for several reasons. One, each of the SPs portrayed simulated service members along a continuum of contemplating taking action to carry out suicide. For example, the Michaela Lowery formative case was written to provide chaplains the opportunity to practice emotion regulation skills (see Appendix 13.1 for case script). Additionally, each case character was contemplating suicide for varied professional or personal reasons. Officer Lowery, a high-ranking service member in her 40's and a physician had lived as a closeted lesbian for her whole life. In the case she is contemplating suicide because she is afraid of a recent encounter that might expose her sexual orientation at work. While serving openly as

an LGTBQ service member is now legal, there continues to be a stigma in military culture toward related issues. This case was designed for the chaplains to practice emotion regulation skills while also giving them practice counseling an LGBTQ service member. This turned out to be one of the more challenging cases for the chaplains due to many of them being less familiar with Officer Lowery's circumstances and struggle. The unique case content also had bearing in the SP recruitment and training, because we needed to ensure that the SPs understood and could represent their role appropriately along the suicidal ideation spectrum. Also, and very importantly, that all of the SPs cast for this event felt comfortable and emotionally and physically safe portraying service members considering suicide [2].

Along with considering where each case fell along the suicidal ideation spectrum, we needed to consider the *religious preferences and practices* of each simulated service member. While religion was sometimes noted in routine cases for other events at the simulation center, it was often a one liner (e.g. "Patient is Catholic and goes to church on Sundays."). Our SPs needed to have more to go on for the Chaplain project. So, there needed to be a substantial amount of information about the religion of the service member in all cases even if the role was not overly religious. This was so each SP had the needed background in order to engage and reply to the chaplains if religion came up as a topic in the encounters—which it often did both times this project took place.

Finally, and as you will see in the sample case, there is a lot of background information and social history provided in each case including details of each service member's military career. This was essential as almost all of the SPs had not been in the military, and many are professional actors. While background on the military was often included in our routine cases for other events at the simulation center, more was needed in the chaplain project cases because the simulated service members had fears related to tangible career repercussions they would likely experience as a result of their suicidal ideation. In some cases, suicidal ideation was a product, in part, of the military career not going well. In other cases (e.g. Office Lowery mentioned above), suicidal ideation was, in part, a manifestation of the simulated service member being afraid due to personal issues. Another officer struggled as a result of a recent drunk driving incident threatening his career.

SP Recruitment & Training: Emotional Safety and Building Relationships

The Chaplain Project gave our SP Educator team the opportunity to strengthen and deepen our relationships with the SPs who participated. This is a powerful reminder that often human simulation projects require relationship building at all levels and with all stakeholders. It is short sighted and a mistake only to focus on relationship building with stakeholders perceived to be "at the top" of the organization. It was paramount for this project that we placed the SP needs—including and especially emotional safety—among our top priorities.

Our SP Recruitment & Scheduling Manager corresponded personally with each of the participating SPs, first ensuring that they understood and were aware of the sensitive nature of the case material they were being asked to portray. Following an initial email exchange, she spoke with each of the SPs answering questions and providing further information as needed. As our front-line person with the SPs, our team was already at an advantage as this team member had well-established excellent relationships with them rooted in trust. Her strong and positive relationships with the SPs also meant she had advanced knowledge of who among them already worked well in the many emotionally challenging cases our center routinely implemented. (Being a simulation center serving military learners, we regularly carried out cases having to do with physical and emotional trauma.). We also considered feedback from the SP Educators in the recruitment process which resulted in well suited SPs being cast in preparation for our SP training sessions.

The two, three-hour SP training sessions for each case, began by providing an overview of the background of this project including who the learners were and how the corresponding didactic module on suicide prevention strategies was a chance to practice skills with the individual cases the SPs portrayed. Early on in each of the SP training sessions, the SPE would then introduce the concept of emotional safety and ask the SPs for feedback as to what assisted them with this process. The facilitating SPE would incorporate these suggestions along with their own which included: establishing the SP lounge as a quiet and safe space during these event days (e.g. no loud talking/laughing/distracting behaviors or noises), being able to call a timeout if needed if an extreme issue occurred during a leaner encounter, establishing the small room off the lounge as a confidential meeting room if an SP needed to speak one-on-one with an SPE or one of the clinical psychology faculty members monitoring the event, and relaxing activities in the SP lounge including coloring and ice cream were provided at the request of the SPs for their breaks. Additionally, an SPE held debriefs with the SPs after each training session and event day in order to check in before SPs left the simulation center. Some SPEs lead short guided meditations for the SPs during trainings and before and after event days. Additionally, we left ample time for each SP to role play the case and receive feedback on their portrayal. It is typical due to time and funding constraints that in routine cases each SP would not have the opportunity to complete a full role play. For the Chaplain Project we found it essential that each SP had this role play experience so that they felt comfortable, confident, and emotionally prepared to portray a service member experiencing suicidal ideation. Finally, the SPE team monitored the

encounters and met with SPs between encounters to address any concerns that arose in performance. These practices correspond with the ASPE protocols for safety found in the Standards of Best Practice guidelines [3]. Following the first implementation of the Chaplain Project in August 2017 all of the SPs expressed interest in participating in this project again in February 2018. Our SPE team repeatedly heard them articulate how meaningful and rewarding this project was to them, and that they felt that were really making a difference by participating as SPs on this project. Our SP team provided affirmations both in-person and over email to each of the participating SPs in the Chaplain Project to thank them for their work. Perhaps, most meaningful, was on the Friday of each of the training weeks all of the participating chaplains asked to see the SPs in the center that day to thank them personally.

Tangible Benefits of the Military Chaplain Project

Of the total 23 military chaplain participants who completed this training in August 2017 and February 2018, all provided feedback that this training was helpful and supportive to them in honing their skills to counsel service members at risk for suicide. Sitting in on follow up phone interviews with some of the participating chaplains in fall of 2017, I (LC) heard each one note that they, unfortunately, already had to use the skills and strategies they learned in the didactic modules and practiced with the SPs. These skills are critical as service members stationed at sea often confide in them as there is a rule of confidentiality chaplains must uphold in the military. Additionally, they may be the only or one of a few readily available resources for deployed service members. So, soon after the first training, we were already hearing from the chaplains that these new skills were already bringing tangible benefits to them in supporting service members in need. This is a testament to the ongoing work of my colleague who initiated this project and the colleagues in her lab whose routine work it is to create innovative solutions to benefit military members and their loved ones whose lives are impacted by suicide.

The Chaplain project brought invaluable benefit to the simulation center on several fronts. In taking on such a large project in addition to the already approximately 42,000 human simulation learner contact hours, (the mannequin-based and virtual simulation events took us to 75,000 learner contact hours at the time) it was necessary that our team receive tangible support as part of the Chaplain project. As a result of the grant funding for this project we budgeted for the simulation center team to hire a part-time Project Coordinator. This tangible benefit afforded to us from the Chaplain Project lasted beyond the year and a half duration of the project itself, because the simulation center was then able to hire this trained

SP Educator on in a permanent position once grant funding ceased. So, this is an example of how an additional project outside of the required curriculum did increase the workload of the simulation center but also tangibly benefited our team by providing support to hire and train a new SPE who then moved into a permanent role when funds were available.

In addition to hiring the Project Coordinator who later became a permanent simulation center employee, the Chaplain project also enabled us to hire and train SPs we named "On-Call SP Trainers". The idea of On-Call SP Trainers has become more popularized over the past decade as workload for SP programs has increased. Essentially, On-Call SP Trainers are SPs from within your pool who demonstrate excellence in their SP work, but also the potential and maturity to take on the leadership role of facilitating SP trainings. This requires the special skill of being able to toggle between remaining an SP for some cases and then stepping into the SPE role to for other cases to train one's peers. We were fortunate to recruit and train some excellent On-Call SP Trainers for this project. Of this group, two went on to take full time positions as SPEs at our insitution, and a third is now a full time SPE at another institution. So, again, this additional project outside of required curriculum hours, helped us to develop future, valued permanent members of the SPE team.

As well as the tangible benefit of staffing, the Chaplain project reinforced our reputation as a center of excellence within our university, externally among the military chaplain community, and to officials in the federal agency which provided us with the grant funding for the project. Our in-house university media team wrote an article featuring the event, which showcased the SP program and also other services the sim center provides to the community. Additionally, nearly each military chaplain participant provided feedback that one of the best parts of this training was the SP component. No previous trainings had offered such "professional role play opportunities". Finally, participating in this training gave us the opportunity to create new relationships with members of the Defense Suicide Prevention Organization which may, in the future, lead to further collaboration including funding.

Finally, the Chaplain Project supported our SPE team in deepening our connection with SPs in our program. Our relationships with participating SPs were strengthened as a result of our teamwork on a thoughtful and complex project rooted in social justice. The SPs voiced over and over again that this project meant a lot them, in part because we trusted and relied on them as collaborators in this important work.

In concluding the story of the Military Chaplain Project it is worth revisiting its evolution and the idea of reputation, experience, and relationship. I (LC) was aided by being introduced as an expert to key stakeholders. However, one must continually earn and establish their reputation by building on experience and cultivating new relationships while nurturing existing ones. In other words, while reputation and

experience may get one in the door whether within your own institution or as a consultant—it is important to approach each new project with fresh eyes in order to best learn with and work in collaboration with others. Simulation is—at its best—a team endeavor often requiring both new and seasoned participants working together to continually nurture and evolve our nascent or existing relationships in service of our learners and their clients or patients.

Client Relationships: A Longitudinal Collaboration Part One

Client relationships, when nurtured with respect, compassion and a genuine willingness to collaborate on ideas and strategies often result in longitudinal partnerships across multiple projects. As we see with the story above this sustainability is due in no small part to the qualities of honesty, transparency and trust that enrich both the client and service provider.

We Learn from Each Other

In 2008, I (KK) received a call from a client working in a teaching institution for the allied health professions (ultrasound, chiropody, radiation therapy, etc.). The faculty were exploring the idea of small group facilitation using simulation and wanted to build their facilitation skills capacity. The client was interested in speaking with me about the initiative and what it might look like in design and delivery. My work and area of interest was known to the client, so this was not a cold call circumstance, based rather on her knowledge of my skills and experience in this area. I proposed several workshop sessions with the faculty members, designed to engage SPs and showcase the benefit and utility of facilitation and effective communication skills. We developed several cases based on faculty concerns regarding their lack of confidence in facilitating small group learning with their students. SPs were engaged to portray challenging student behaviors, providing faculty the opportunity to manage and respond to volatile behaviors and situations.

At the same time the Institution was developing new curriculum for students to build inter-professional communication skills for clinical placements. I was invited to consult and develop 8 cases with faculty leads and assist in the course design process to accommodate over 250 learners across multiple professional discipline with approximately 14 SPs. Based on the early success in a number of key areas; inter-professional collaboration, engaging effective communication skills and techniques, responding to emotion, exploring constructive skills of refusal etc., the administration blueprint for this initiative is still operational today at this institution. Subsequently, when the client decided to modify the scenarios a few years later, I was invited to play a role in that process.

The success of this project was due in part to: learning from the client about the unique needs and requirements of their organization, respect for what they could and could not undertake during the process and staying involved and committed to feedback and evaluation outcomes. I wanted to know not only what was working but what wasn't working and the associated pitfalls that they experienced along the way. When you have so much invested in the success of a project it is not always easy to welcome critical feedback and, in some cases go back to square one to determine what elements can be creatively resolved and changed to meet the client's needs. The client eventually moved to another organization. We remained in touch despite no formal working contact. It might be of interest to mention here that I did continue to work with her colleagues at the institution and my work with them continues today.

Same Client – New Organization: A Longitudinal Relationship Part Two

The client moved to another organization, a children's rehabilitation hospital and was looking at how simulation could help embed and actualize the organizational mission and values for each employee. Her goal was to reach out to every employee across the organization with a three-day interactive program that would inspire investment and commitment to respectful compassionate care for all. And simulation was to be a prominent feature.

The idea that all staff members could collaboratively engage in a series of learning activities to promote and highlight the organization's client and family centered values was an intriguing and exciting challenge. We worked together to identify the learning objectives, challenges and outcomes with human simulation methodology as the central focus. Two central cases were developed and designed to challenge the core client and family centered care values. SPs were carefully trained in pairs to portray complex family dynamics. All stakeholders were included in a series of discussion/focus groups. Consensus was achieved and the project ran monthly as a pilot for the first year. This was a truly collaborative project from the very outset with everyone involved; from CEO to clinician, student, family member and administrative services. Five years later it is being delivered every month for new and seasoned employees. Along the way there have been other deliverables we have designed and implemented that further the Institution's strategic plan.

With each successful endeavor, outcome and evaluation evidence contributes to a fruitful client provider partnership which builds on itself. The more you understand and learn about the client organization's strengths and needs, the more creative you can be in developing unique teaching and learning opportunities.

Cultivating the Client Relationship: Developing the Project

> Officers Jenn and Brian were dispatched to a call involving a despondent male who was wearing earbuds and screaming into his phone about a breakup while harming himself.
>
> They navigated the call with a newfound confidence and professionalism and secured a successful outcome. After clearing the call both officers stated that lessons learned from the simulation session were helpful for them in working through the incident.
>
> They stated they focused on getting his name early, despite his best efforts to ignore them, and this was critical in building rapport. Both said they approached the call differently given the simulation training and felt more confident and better prepared to respond to the call when dispatched.
>
> This is exciting training and could save a life one day!
>
> (*Director Security, Queen's Park Legislature, Provincial Seat of Government, Canada*)

This feedback is the result of a training session we conducted for officers at a national gathering of the Canadian Sergeant at Arms. Here is how it came about.

Reputation: A Small World

A law enforcement officer heard about our work (NM & KK) from a friend who attended a course, my colleague and I had run for a local police service and invited us to meet with the Director of Security for our Provincial Legislature. In Canada the Legislature is the Provincial seat of government and its Peace Officers are trained on site with the same responsibilities and legal accountabilities of other police forces with the added responsibilities of protecting our provincial political leaders. This unique setting can be a flash point for protests and demonstrations by disgruntled citizens and is a symbol of authority not always valued. We appreciated the word of mouth referral and were curious about their interest in our work. What could we do for them?

Experience

Over a number of meetings with the Director of Security we began to understand the challenges encountered by officers and specific aspects of the environment which dictated their activities. For example, the Legislature is a private building with public access. People from around the world visit every year, making it a tourist destination. This requires a hospitable and somewhat discreet presence by the officers. They need to be able to act as tour guides with knowledge of the building's history etc. At the same time, they are invested with the power to arrest and are trained to respond to a poten-

tial mass casualty event. We were interested in understanding deeply the objectives for the learning they were hoping we would design, and the expected outcomes. Our experience as simulation educators directed our attention to providing a tailored experience that was aligned with feedback that participants could walk away remembering and be able to put into practice. It is not enough to provide a stellar simulated encounter if participants are not able to respond to or use the experience in their day to day work.

Relationship

We have just finished our second full day course with this group for a set of new recruits. Our ongoing mutual respect for each other's professional knowledge and skills has created an environment of trust and creative possibility. For this course we created scenarios from stories they told us about in order to increase the relevance to their everyday work. A fellow with paranoid delusions who wants to meet the Premier and has managed to gain access to the secure corridor outside his office has a conversation with the Peace Officers. Another fellow is threatening to jump from a high ledge and a third scenario involves an army veteran experiencing symptoms of Post-Traumatic Stress Disorder (PTSD) who has been injured from a fight on the Legislature grounds. He is hallucinating and is being tended to by a passerby. These stories were shared with us as part of our conversations about the nature of their work. We are willing to try new approaches with this group to meet their needs as they are willing to listen to us and answer our questions leading to a fruitful engagement. Success looks like an open invitation to return to work with them on a number of quality improvement initiatives in the coming year.

Conclusion

Simulation methodology is an educational approach that is consistently learner-focused and of value to professions across a range of fields. We have endeavored to highlight the critical weight that your continually evolving experience, reputation and most importantly relationships lend to successful simulation initiatives in fields beyond healthcare. They are inextricably linked in no particular order, but it is unlikely that they will ever exist in isolation without impacting each other. Without experience, there will be a lack in either reputation or relationship. Without reputation, you may need to cultivate more relationship and experience. Without relationship, building, reputation regardless of experience may be warranted.

We have also described a number of projects with different groups in professions outside of healthcare in the hope that you may see opportunities for the rich learning and relationships that human simulation can afford when designed and delivered with care. There are a number of important considerations when employing human simulation in professional fields or with clients who may have little knowledge about its underlying principles and practices. Relationship building is a top priority in creating a collaborative environment that will support learning with, from, and about each other in order to benefit learners, meet client expectations and maintain the integrity of simulation education practices. Educating clients and meeting their expectations requires knowledge of what a human simulation methodology offers as well as a creative and adaptive approach. Simulation based education is, at its best, a collaborative process in which we as educators engage opportunities responsibly to create transformational moments for learners.

Appendix 13.1

Simulated Service Member – Michaela Lowry

Date(s) and content revised: Carol Stewart 7/3/17, Tiffany Garfinkle 7/26/17, Joseph Grammer 11/15/17

Case template-Military Chaplain Simulation Event created by Lou Clark, MFA, PhD & Tiffany Garfinkle, MA

Case author and date written: Lou Clark, MFA, PhD, Tiffany Garfinkle, MA, Joseph Grammer, Michael Montgomery, BS, A. Graham Sterling IV, PhD, Carol Stewart, MSW, NCC, and Stephanie Phalen, SP who pilot tested and originated this role.

Goals for learner:
1. Emotion Regulation

Case objective(s) for learner:
1. Explain the role of emotion dysregulation in elevating suicide risk.

2. Summarize adaptive and maladaptive functions of emotions.
3. Discuss the connections among thoughts, emotions, bodily sensations, and behaviors.
4. Assist in the identification of emotions (expansion of emotional vocabulary) and rating of their intensity on a continuum.
5. Introduce <u>at least two</u> strategies for emotion regulation to prevent future suicidal crises.

Opening statement: "*There's something I need to tell you, but I'm not sure how…*"

Service member demographics:
- **Age range:** 35–45
- **Gender:** Female
- **Ethnicity:** Caucasian
- **Location:** Chaplain's office at Joint Expeditionary Base Little Creek (Portsmouth Medical Center)

Service member clothing: Civilian attire
Is there a gown required during encounter? No
Is there a door sign with this case? Yes, chaplain pre-encounter

Chaplain Information

Service Member Information

- **Name:** Lieutenant Commander Michaela Lowry
- **Setting:** Chaplain's office at Naval Medical Center Portsmouth (NMCP)

Lieutenant Commander Michaela Lowry is the head of the Endocrinology/Diabetes Clinic at NMCP. She was raised as a Presbyterian and she attends Christian services when she has time (about every 1–2 months—you know her casually because of this). She called and made this appointment with your RP, and the RP told you she sounded pretty upset.

Learner Instructions

Goals for learner:
1. Emotion Regulation

Tasks:
1. Explain the role of emotion dysregulation in elevating suicide risk.
2. Summarize adaptive and maladaptive functions of emotions.
3. Discuss the connections among thoughts, emotions, bodily sensations, and behaviors.

4. Assist in the identification of emotions (expansion of emotional vocabulary) and rating of their intensity on a continuum.

5. Introduce <u>at least two</u> strategies for emotion regulation to prevent future suicidal crises.

Time Limit: 30 Minutes

SP Educator/Trainer Notes – Michaela Lowry

- **Trainers:** Tiffany Garfinkle
- **Date:** August 2017
- **Activity:** Chaplain Event

Describe any changes in or clarification to case details and why:

If your suicide story has not come out by 10 minutes into the encounter, say something to encourage the chaplain to ask you about it. *("I just don't know how much longer I can go on like this"* – just an example)

Describe any changes in the door sign:

Describe adjustments or changes in SP portrayal (e.g. affect, verbal or non-verbal cues):

Describe changes in information/responses given by SPs (e.g. ways of answering open- and close-ended questions):

Service Members refer to chaplains as *"Chaps."* Use this or *"Sir/Mam"* (what you feel is appropriate for your character). Chaplains will most likely tell you to use their first name if you start to call them sir/mam.

If asked if you would like to pray with the Chaplain: If you feel it is appropriate for your character, you can say *"yes."* If the Chaplain asks you to take the lead on this you can say, *"I'd like to pray silently alongside of you."*

Chaplains are known for giving relationship advice.

At the end of the encounter, the chaplain might mention you waiting in the room with his "RP". An RP is a religious program specialist. A Religious Program Specialist (abbreviated as RP) is a <u>United States Navy rating</u>. Religious Program Specialists assist <u>Navy chaplains.</u> Religious program specialists provide support to Navy chaplains in developing programs to meet the needs of Navy and Marine Corps personnel and their families. RPs perform functions that do not require ordination and do no pastoral counseling. They also protect the chaplain on deployment.

<u>For your information:</u> The chaplains could use the following terms, especially if your character has been deployed or is on deployment:

Garrison – collective term for a body of troops stationed in a particular location, originally to guard it, but now often simply using it as a home base. The *garrison* is usually in a city, town, fort, castle, etc.

Inside the wire – within the confines of a camp/base/forward operation base.

Outside the wire – military jargon for being beyond the relatively safe confines of a base camp or support installation

Describe any new training tools/aids/techniques used (e.g. relevant Mind Map, timelines, previous encounters reviewed):

General instructions to guide the SP:

<u>Suicide Ideation</u>

Active suicidal thoughts/ideation with a plan (pills)

<u>Level of Emotion</u>

Whatever what is most intense manifestation of your characters emotionality, allow that to take place at outset of encounter, but then allow emotions to gradually subside over the course of 30 minutes. Don't go big or ramp up the emotionality in the last few minutes of the encounter, even if it could be in character or is appropriate. Stay in character, but subdued emotionality is desired at the end of the encounter.

<u>Interventions</u>

1. Emotion Regulation

Once you detect an intervention is taking place, be broadly receptive. If appropriate to your character, you can be wary initially for first minute or so of intervention, and you can gently push back during intervention if your character is uncomfortable. Overall, allow Chaplain to go through intervention.

Describe props and how used:

Describe any pressing issues for immediate or future changes (e.g. new questions to checklists):

Describe any problems/difficulties to bring to debrief/ SPOT meeting for resolution (e.g. student issues from debrief, awkward case moments):

Service Member Training Notes

Note: If there are some lengthy quotes in this case. You do not need to know them verbatim. Use them for content.

Name:	Michaela Lowry
Clothing:	Civilian attire
Reason for visit:	Suicidal Ideation due to struggle with sexual identity
Opening Statement:	*"There's something I need to tell you, but I'm not sure how…"*
Opening follow up:	*"I'm just so overwhelmed, and I guess I'm having some sort of identity crisis…"*
Trigger Question (question designed to interrupt chaplain if they are asking questions in mechanistic/wrote style):	*"Will God love me if I'm gay?"*
Reason for seeking Spiritual Counseling (note – this could be the same or different from "reason for visit" above. Meaning – this could be overt or covert):	Need to discuss struggle with sexuality and didn't know where else to go. You attend Christian services occasionally (every 1–2 months) this is how you know this chaplain. You have met with various chaplains over many years to discuss spiritual issues. You came to see the chaplain today, because you have been struggling with this situation ever since it happened. You are very afraid this woman will out you, and your reputation will be ruined.

Social History:	**Age:**
	You are 43 years old.
	Family Background/Upbringing:
	You were raised in a loving, but conservative family. You grew up in Tulsa, Oklahoma and are an only child. Your parents were model citizens, pillars of the community. Dad was a church deacon. Mom was an officer in the rotary club.
	If asked: "*I was a model kid. Straight A's, varsity soccer, volunteering on weekends, and working part-time in the summer.*"
	When you were in high school, you knew someone in your community who was outed as being gay when he confided in his friend. This led to church interventions and a great deal of shame for that family. After witnessing that, you dealt with your "*impulses*" by praying, but avoided addressing those feelings.
	Current Living Situation (i.e. spouse, children, friends, and pets):
	You own a home in Virginia Beach. You are single and live alone. You have a golden retriever named Admiral Byrd. You are very social and have many friends at your current duty station and from others around the world. You are considered affable, popular, witty, and hard working. In all respects, you are a model US Naval Officer and you are known for accepting full responsibility when something goes wrong.
	    Dating has always been a struggle for you. In high school and college, you tried to date men. You had a few boyfriends who were "*nice guys,*" and you're still friends with them. You just couldn't allow yourself to be serious about them. At the time, you told your family that you wanted to focus on your dream of becoming a doctor. Once you were in medical school, you were too busy to date seriously, even though several of your classmates were dating and getting married. You continued being "*too busy to date*" through your residency. When you were named Chief Resident, you were really excited and wanted to give that "*total focus.*"
	    After residency, you felt you had more time to yourself and began exploring feelings you denied – specifically your attractions to women – that went all the way back to your first experiences with puberty. Throughout your 30's you had very brief relationships with women, none of whom were in the military. You have struggled since this time, because you have always believed homosexuality is a sin. This is causing internal conflict for you – you are happiest when dating women, but you simultaneously deal with the byproduct of self-loathing/self-hatred.
	    On top of all of your own internal conflict, you are concerned that if you come out your parents won't love you anymore, and that you won't be accepted by your military colleagues and friends.
	    Your parents, over the years, have sparked arguments with you about why you never married. Throughout your residency, they accepted that you were too career driven. Throughout the last 10 years, they have put on the pressure, especially as you are an only child. You are their one shot for grandchildren.
	    Two weeks ago, you went to a party hosted by a mutual friend, another Presbyterian officer named Carlyle. You were having a great time, and one of the guests, a woman named Lisa, seemed to be paying a lot of attention to you. You thought you were getting signals from her that she
	was interested in you romantically. You hung around, with her encouragement, until the end of the party. You were the last one there. When you said goodnight, you asked Lisa if she wanted to get together sometime. She enthusiastically said, "*Yes.*"
	    A week ago, the two of you went out to dinner together. You had what you thought was a great time. When you went to say goodnight, you walked her to her car and then got up the courage to ask if you could kiss her. Your date was very surprised and said "*No, I don't know what you were thinking, but I'm not that way!*" She got in the car and sped off.

If asked*: "I just stood there. I was mortified."*

(Note: The woman you went out with is not in the military and does not work at the hospital you work at. You are worried that you will be outed to your non-military friends. This would be a complete change of your identity.)

Since your date, you have been throwing yourself into work – doing anything you can to take your mind off what happened. This has had a negative impact on you – you are exhausted and feel like you are at a breaking point. When you stopped to think about yesterday, you realized you felt worse now than you did on a stressful deployment.

You have been thinking about taking your life since the date and for the past week, you have been taking out your bottle of Valium and pouring yourself a glass of water and contemplating taking the pills. You sit and stare at the pills and picture what happened over and over.

Most of your friends are other officers in the clinic. You know they are "*educated, nice, and pretty openminded*," but you are still afraid for them to know. Your closest friend is a fellow Lieutenant Commander and doctor named James Whitmore. James is from New York City and is "*crazy liberal.*" You often have friendly arguments with him, since you tend to be conservative in your views. He often jokes that he never sees you on dates.

If asked if your friends would reject you if they knew you were a lesbian: "*I don't know … They act nice to me now, but who knows? Maybe they'll be mad I lied. I don't know."*

If asked about your family: "*My parents are getting older now (70s). They just think I'm a woman who loves her career and doesn't have room for a man, and they made peace with that. I think coming out to them would break their hearts."*

If the chaplain does a good job helping you regulate emotions:
"Maybe James would understand and be OK, but I'm still not ready for anyone to know. Maybe never."
If asked: *"I still know it's a sin, at the end of the day. I don't know what to do about that. I still pray."*
Your emotions have varied wildly on the issue of people "*knowing about you.*" Sometimes you feel that your friends won't care, but other times your shame about the" sinfulness" of being a lesbian comes back, and you're terrified about what people will think.

If asked: "*I remember the days where you got kicked out if you were gay. I can't just forget that.*"

If asked: "*I have lots of friends, but they usually tell me their personal things, not the other way around. I don't give my details out—they know I'm private.*"

If asked: "*I've never told anyone I didn't date. Not friends, not family. Some women I tried dating laughed at me, or said they felt sorry for me because I couldn't be honest with myself. I don't think they understood how things were for me."*

If asked: "Most *people in the clinic just care if you can do your job. We have one openly gay man who's enlisted, Petty Officer Harrison, a medical tech. He seems like he's OK with how people treat him, but still … how do I know what goes on in his life? Some people call him their 'gay best friend,' and he just laughs, but I would hate that. I don't like how people fixate on the fact that someone's gay and always bring it up."*

You have several fears about this issue. One fear is that people will treat you differently if you're outed, either like "*I'm weird or exotic"* or in a disapproving way. "*Some people in my chain of command, especially my Captain, are pretty traditional, even more than me."* Another fear is that you will lose your privacy, and people will start asking you lots of questions about "*what it's like to be gay."* You're also afraid about not being able to control whether or not you get to come out— "*it all depends if Lisa told Commander Carlyle, and if he told someone else."*

You've been so distraught that you've had suicidal thoughts since the date (2 weeks ago). One week ago, you even considered taking some old Valium pills leftover from an old back injury. Several times you have set the pills in front of you with a glass of water, "*just to see if it helped*," but you haven't taken any yet.

You feel tremendous guilt about "*who I am*," and when the feeling gets strong enough, you think it's better to just kill yourself and "*be done with this*."

Note: the operative skill here we want to see the learners demonstrate is emotion regulation, not safety planning, so steer the chaplain away if they try to go the safety planning route.

If asked: "*I still feel like hurting myself sometimes, but I don't want to. I believe suicide is a sin and I know it hurts people, and I don't want to do it. Sometimes the feeling gets strong, though, and then it's hard."*

If the chaplain presses you about safety planning, you can say that you "*flushed the pills yesterday*" and don't have any other weapons or medication at home.

If asked when you felt most comfortable with your sexuality:
"*I dated one civilian woman named Selena for a few weeks, when I was maybe 35. She had some really good talks with me about how you can love God and follow Him but also still be yourself. She was raised Episcopalian and being gay was totally normal. She had a gay priest, even. I felt OK about myself then, but I still got afraid later and ended the relationship."*

	Religious Background:
	You were raised in an active Presbyterian environment. You believe in God, desire to go to heaven, and attend services when you have time.
	Over many years you have asked different pastors about the fate of gay people – theoretically of course. You have received several warnings about homosexual behavior. <u>You believe being gay is a sin, and therefore you will be prevented from going to heaven in the afterlife—which is your central conflict</u>. Without getting into the specifics of the Presbyterian religion, the important fact here is that the particular body of the church that you were raised in was conservative in its views on homosexuality. <u>Therefore, the problem is how you reconcile who you are with what you were taught about being gay/finding salvation.</u>
	Educational Background:
	You graduated from Oklahoma State University with a bachelor's degree in Chemistry. You then attended medical school at USUHS and graduated near the top of your class in 2001.
	Military Background:
	You joined the Navy when you started medical school at the Uniformed Service University for the Health Sciences (USUHS-the only federally funded medical school in the country-you are commissioned upon entry.)
	If asked: *"I decided to join the Navy because I wanted to see the world beyond Tulsa."*
	You were deployed to Tikrit, Iraq in 2008 and Helmand Province, Afghanistan in 2010, first as a Battalion Surgeon for 2nd Battalion, 7th Marine Regiment (referred to as 2/7 pronounced "two-seven") then as Regimental Surgeon for 7th Regiment. Your position as 7th Regimental Surgeon was a nod to how well you performed running 2/7's Battalion Aid Station (referred to as "BAS"). You deployed both times from Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, CA, your first duty station after graduating USUHS. You proceeded to residency after your second deployment.
	Note: Deploying with the Marines is commonly referred to as going "*greenside*" in the Navy. Remaining on ships/submarines etc. is "*blueside*" or "*big Navy*." The chaplains may use these terms with this Service Member.
	While downrange (deployed overseas, usually in a war zone), you saw horrific wounds that service members suffered from gunshots, RPGs (rocket-propelled grenades),
	and IEDs (improvised explosive devises-these are commonly used as roadside bombs), However, you have a "*naturally positive attitude*" which you feel helped you to cope with this. You never talked to anyone in behavioral health about the things you saw/experienced.
	If asked: "*I have very few nightmares about my experiences.*"
	You are a Lieutenant Commander (O-4, an officer, often referred to as "Commander") and the head of the Endocrinology/Diabetes Clinic at the Naval Medical Center Portsmouth (NMCP) located in Portsmouth, VA. You have been at your current posting for 6 years.
	Timeline of Events:
Timeline of Events (as relevant to predisposition to suicidal ideation)**:**	**Year/Month/Date Event**
	Lifelong struggle with identity.
	Two weeks ago-difficult date, since this happened you have been thinking about ending your life.
	Past week-you have been taking out your bottle of Valium and pouring yourself a glass of water.
Communication Preferences:	**Before Suicidal Ideation – Verbal Communication Style:**
	Articulate, confident, indicative of well-educated authoritative person.
	After Suicidal Ideation – Verbal Communication Style:
	Still articulate, but quitter than usual (Note: make sure you try to face the microphone so that you can be heard). A little less confident than usual.
	Before Suicidal Ideation – Non-Verbal, Physical Affect Preference:
	Professional, yet relaxed open posture.
	After Suicidal Ideation – Non-Verbal, Physical Affect Preference:
	Tense and closed off. (Note: since this is a formative exercise and there are only 2 SPs portraying Michela, take whatever tense, closed off posture feels authentic and natural to you.)
History of Present Mental Status:	**Physical Symptom(s):**
	What is the symptom (e.g. Sometimes a physical symptom can manifest as part of a mental status issue/concern; If there is not a physical symptom present as part of this case authors can write "N/A")**:**
	Poor sleep, trouble getting to sleep.
	What is it like? (quality) bags under eyes, exhausted
	How bad is it? (quantity/severity) *"I'm only sleeping 3-4 hours/night."*
	Suicidal Ideation Symptom(s):
	When asked if you have "considered suicide," you reply:
	"I've been thinking of actually hurting myself over this. I'm looking at the Valium pills from an old back injury (you hurt your back in an old move). Thinking about not waking up and just not dealing with this anymore. I've never wanted to hurt myself before, but I'm just so tired."
	If asked when you started thinking about a plan:
	"I've been thinking about this every day this week. I've taken out that bottle and gotten a glass of water." (You have not gone so far as to take any pills).

	If asked what you think the problem is, you reply: *"I just can't be gay."* **When did it start?** (see timeline on previous page for further details): **"It's been this way my whole life."** **Does anything make it better or worse?** *"When I work a lot, I can almost forget."* **If asked about your mood, you describe it as** (use quote): *"Awful, I'm terrified."* **If asked how you coped with challenges in the past (e.g. in medical school, you reply**: *"I like a challenge—it helps me keep my mind off other things."* (You have always been able to put things into perspective in the past.)
Mental Health Assessment Questions:	**SIGECAPS** If asked about changes in habits for the following topics: **Sleep** – 3–4 hours/night **Interest** – Don't want to hang out with friends; or use social media, etc. **Guilt** – Yes!!! **Energy** – Lower than normal **Concentration** – Fine, actively throwing yourself into your work **Appetite** – Not eating as well as you normally do **Psychomotor** – (e.g. Have you been feeling like you've been moving really slowly or having racing thoughts?) – No, but you are replaying the date in your mind over and over again. **Suicidal Ideation** (see entirety of this case for details) – yes, thinking of taking Valium since the bad date
Learner goals:	Emotional Regulation
Family medical history:	**Father:** 75; alive and healthy **Mother:** 72 alive and healthy **Siblings:** N/A **Grandparents** (if relevant): N/A
Current medications:	N/A
Sexual History:	5 previous partners (all women) – never had an STI
Lifestyle Risk Factors:	**Drugs**: No **Tobacco**: No **Alcohol**: One glass of wine/night (recently, sometimes two) **CAGE questions address alcohol use, your responses include:** **Cutting back on alcohol,** (Do you feel you should cut down?): No **Annoyed,** (Do you get annoyed when others ask about your drinking habits?): No **Guilty,** (Do you feel guilty when you drink?): No **Eye Opener,** (Do you need a drink in the morning?): No
Health maintenance practices:	**Diet**: Very healthy **Exercise**: Very active; 5 times/week at gym – treadmill and weight regimen. **If asked**: *"I work out—it's my drug."* **Personal Safety** (i.e. gun in the home): No

Rating Categories: Simulated Service Members assess learner skill(s) in Emotional Regulation:

Please use the following as a guide when making your ratings of the encounters at the Simulation Center. Please feel free to use any integer ranging from 0 to 6.

0   Made no attempt to meet objective -
- ☐   Objective not addressed at all in the encounter

2   Made little attempt to meet objective -
- ☐   Evidence that the learner did not understand the objective
- ☐   Evidence that the learner did not personalize the content
- ☐   Evidence that the learner did not address questions and/or concerns
- ☐   Evidence that the learner did not show flexibility and persistence in the face of setbacks
- ☐   Limited execution

4   Made a moderate attempt to meet objective -
- ☐   Evidence that the learner understood the objective
- ☐   Evidence that the learner personalized the content
- ☐   Evidence that the learner did address questions and/or concerns
- ☐   Evidence that the learner showed flexibility and persistence in the face of set-backs
- ☐   Moderate execution

6 Skillfully met all aspects of objective -
- ☐ Evidence that the learner mastered the objective
- ☐ Evidence that the learner masterfully personalized the content
- ☐ Evidence that the learner masterfully addressed questions and/or concerns
- ☐ Evidence that the learner masterfully showed flexibility and persistence in the face of setbacks
- ☐ Comprehensive execution

Module 4: Regulating Emotions to Control Suicidal Urges

_____**1. Explain the role of emotion dysregulation in elevating suicide risk.**
- 0 **Made no attempt** to explain the role of emotion dysregulation in elevating suicide risk.
- 2 **Made little attempt** to explain the role of emotion dysregulation in elevating suicide risk.
- 4 **Made a moderate attempt** to explain the role of emotion dysregulation in elevating suicide risk.
- 6 **Skillfully** explained the role of emotion dysregulation in elevating suicide risk.

_____**2. Summarize adaptive and maladaptive functions of emotions.**
- 0 **Made no attempt** to summarize adaptive and maladaptive functions of emotions.
- 2 **Made little attempt** to summarize adaptive and maladaptive functions of emotions.
- 4 **Made a moderate attempt** to summarize adaptive and maladaptive functions of emotions.
- 6 **Skillfully** summarized adaptive and maladaptive functions of emotions.

_____**3. Discuss the connections among thoughts, emotions, bodily sensations, and behaviors.**
- 0 **Made no attempt** to discuss the connections among thoughts, emotions, bodily sensations, and behaviors.
- 2 **Made little attempt** to discuss the connections among thoughts, emotions, bodily sensations, and behaviors.
- 4 **Made a moderate attempt** to discuss the connections among thoughts, emotions, bodily sensations, and behaviors.
- 6 **Skillfully** discussed the connections among thoughts, emotions, bodily sensations, and behaviors.

_____**4. Assist in the identification of emotions (expansion of emotional vocabulary) and rating of their intensity on a continuum.**
- 0 **Made no attempt** to assist in identification of emotions and rating of their intensity on a continuum.
- 2 **Made little attempt** to assist in identification of emotions and rating of their intensity on a continuum.
- 4 **Made a moderate attempt** to assist in the identification of emotions and rating of their intensity on a continuum.
- 6 **Skillfully** assisted in the identification of emotions and rating of their intensity on a continuum.

_____**5. Introduce at least two strategies for emotion regulation to prevent future suicidal crises.**
- 0 **Made no attempt** to introduce any strategies for emotion regulation to prevent future suicidal crises.
- 2 **Made little attempt** to introduce <u>at least one</u> strategy for emotion regulation to prevent future suicidal crises.
- 4 **Made a moderate attempt** to introduce <u>at least two</u> strategies for emotion regulation to prevent future suicidal crises.
- 6 **Skillfully** introduced <u>two or more</u> strategies for emotion regulation to prevent future suicidal crises.

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Abbreviations

AMEE	Association for Medical Education in Europe
ASPE	Association of Standardized Patient Educators
ASPiH	Association for Simulated Practice in Healthcare
CHSE	Certified Healthcare Simulation Educator
GTA	Gynecological Teaching Associate
INACSL	International Association for Clinical Simulation & Learning
MUTA	Male Urological Teaching Associate
OSCE	Objective Structured Clinical Examination
PETA	Physical Examination Teaching Associate
SESAM	Society in Europe for Simulation Applied to Medicine
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SSH	Society for Simulation in Healthcare
UK	United Kingdom
USA	United States of America

Describing the World

Standardized/simulated patient methodology took the stage as a North American way of medical human simulation over 50 years ago. It has been evolving in various ways in its journey through the countries and cultures. The cultural variations are reshaping the methodology, the field, and the people.

When you want to see how educators or researchers use SP methodology in various countries, your first limitation

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will be the language. The more in-depth you want to go, the more limitations you have to reach the work being conducted by international people. You cannot find. You cannot see. You cannot understand. On the other side of the world, they have the same challenge. They cannot show. They cannot tell. They cannot share. While some countries, some cultures and some educators/researchers are dominating the field in the literature, the majority, may be underrepresented. This "scientific/academic minority" is struggling with taking the stage. They cannot present or publish their work in the international arena, and are getting lost. This is one of the biggest issues when you are searching for the international contributions to the SP methodology. You might be missing one part of the world, and you do not have any idea how big this part is.

It is also the same for this chapter while trying to describe the world of SP methodology. The description is based on a review of literature (a systematic search in PubMed and Web of Science, explained in Appendix 14.1), and supported by the data of a survey (using social media and networks with an additional effort of being more comprehensive; Appendix 14.2). The results of this research include 2491 articles from 72 countries, and personal contributions of 34 SP Educators from 26 countries in response to a survey; totaling work from 77 countries.

The aim of this chapter is to provide you a general snapshot about the SP methodology around the world based on the publications and explore the non-US world of SPs based on the literature and the survey.

Growth of the SP Methodology Represented in Publications

The first publication in the literature was Barrows and Abrahamson's "*The Programmed Patient – A Technique for Appraising Student Performance in Clinical Neurology*" in 1964 [1]. There were only five articles in the next 10 years. Growth was slow over consequent years but increased as the

methodology grew as reflected in the number of articles published per year (Fig. 14.1).

Dissemination of the SP Methodology

The first publication was from the USA, the country of birth [1]. SP methodology had its inaugural route through English speaking countries that would be the main supporters and contributors in its history: Canada [2], United Kingdom [3] and Australia [4] while evolving from an assessment approach to an instructional methodology. Now, when you look at the map of current publications, you will see that SP methodology is used in many countries and in various cultures (Fig. 14.2). The entire list is impressive and shows how widely the SP methodology is being used all around the world (Table 14.1).

Change in the Contributions of the Countries to the Literature

A change in the number of the contributions of the countries to the literature reflects how the SP methodology has disseminated among the countries, when the educators/researchers

Fig. 14.1 The growth of literature on SP methodology in 5-year time intervals
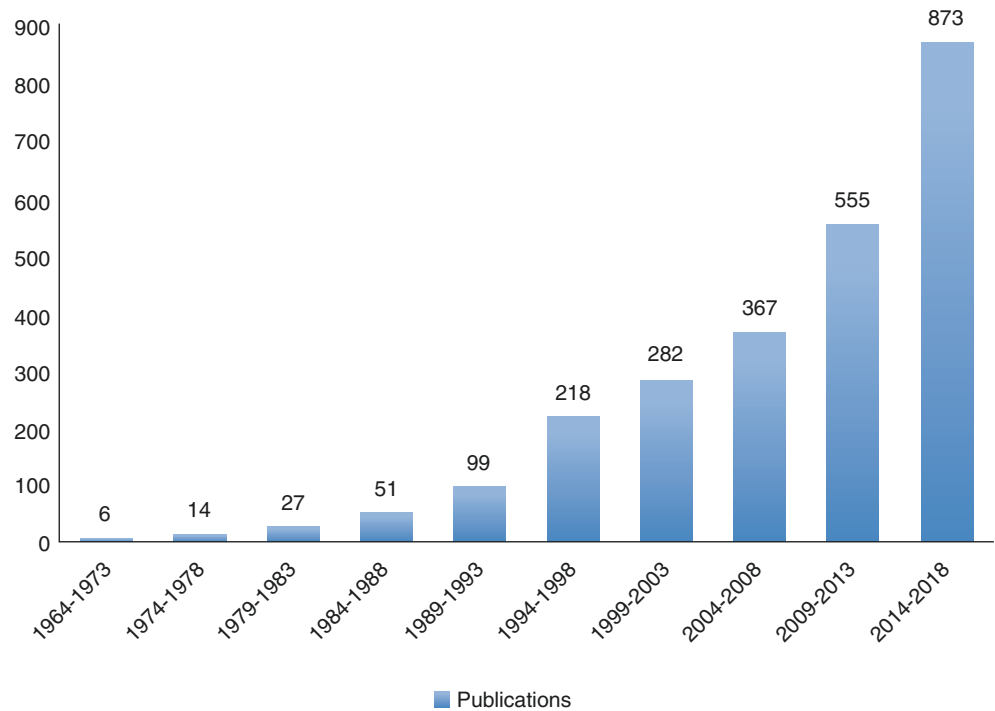
Fig. 14.2 The dissemination of current literature on SP methodology among the countries
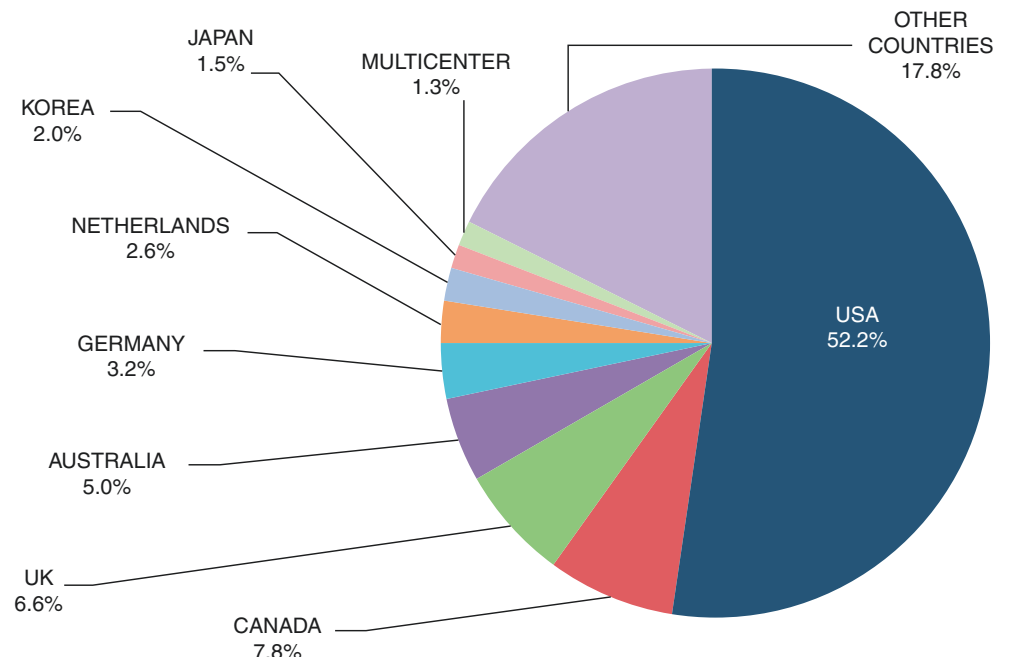
Table 14.1 The list of countries (publishing on SP methodology) with the number of publications from each country; and the additional countries contributed to the survey without any publications in the literature

Country	Number of publications	Country	Number of publications
USA	1301	Austria	4
Canada	194	Ethiopia	4
United Kingdom	165	Nigeria	4
Australia	124	Portugal	4
Germany	80	Qatar	4
Netherlands	65	Hungary	3
South Korea	49	Indonesia	3
Japan	37	Uganda	3
Switzerland	34	Bolivia	2
Turkey	25	Colombia	2
China	21	Finland	2
Israel	21	Ghana	2
France	20	Lebanon	2
Spain	20	Slovenia	2
Taiwan	18	Zimbabwe	2
New Zealand	17	Aruba	1
Iran	16	Burkina Faso	1
Sweden	15	Czech Republic	1
Belgium	14	El Salvador	1
India	13	Guatemala	1
South Africa	13	Iraq	1
Brazil	12	Jamaica	1
Malaysia	11	Jordan	1
Italy	10	Madagaskar	1
Norway	10	Nicaragua	1
Pakistan	10	Palestine	1
Kenya	9	Puerto Rico	1
Saudi Arabia	8	Romania	1
Denmark	7	Russia	1
Singapore	7	Rwanda	1
Tanzania	7	Senegal	1
Vietnam	7	Sint Maarten	1
Ireland	6	Sri Lanka	1
Peru	6	Egypt	survey
Thailand	6	Ecuador	survey
Chile	5	Georgia	survey
Mexico	5	Kazakhstan	survey
Nepal	5	Saint Lucia	survey
United Arab Emirates	5		

introduced the SP methodology in each country, and the level of their involvement. Since the SP methodology was defined in the USA, it dominated the literature for a long time. In the first 25 years, the US educators/researchers produced 67% of the literature; and the other four leading countries (Canada, UK, Australia and Netherlands) produced 31%. The contribution of the rest of the world was only 2%.

However, while the publications produced by USA was increasing between 1989–1998, the rate of the US contribution

to the overall literature was reduced to 58%. The other four leading countries stayed at the same percentage, but there was growing literature produced by the rest of the world (11%).

Publications on SP methodology doubled over the 10 years in 1999–2008 and 2009–2018. The first five countries were producing a total of 80% between 1999–2008 while Germany was taking stage with 2%, and the rest of the world was contributing 18%. In the last 10 years, the amount of publications from the USA was still very high but dropped to 46%. Germany reached 4% and became the fourth country (Australia 7%, Canada 6%, UK 6% and Netherlands 2%) in publications. The other countries produced 29% of the literature creating a new world of SP methodology (Fig. 14.3).

Defining the Subject of SP Methodology

Howard Barrows used the term "programmed patient" in his first publication [1]. He used the term, "simulated patient" in his second publication [5]. As the application of the SP methodology expanded in various educational activities and professions, the educators/researchers began using different terms for the "subjects" of the methodology. Currently a wide range of terms are being used in a blurred way; using the same term for entirely different applications or creating several terms for the unique application within the same country or among the countries. Despite the precise differentiation of the terms "simulated" and "standardized", there are frequently used and interchangeable terms of the methodology around the world. "SP" is commonly used as a comprehensive abbreviation for mentioning several words for "S" and "P" used in this methodology. The keywords defined in our systematic review, and the ones met additionally in the literature are representing the "multifariousness" (Fig. 14.4, Table 14.2).

Besides the preferred term, it can be interesting to see "SP" in the original languages (Table 14.3).

Involvement of the Professions/Fields of Work

The SP methodology was initially defined in medical education, but many other professions from health sciences and beyond health sciences have worked with SPs. Any activity requiring human interaction in education, assessment, research and quality improvement are an area for using SP methodology; even the SPs themselves are the subjects of research in various countries. You can see the professions/fields of work using SP methodology in Fig. 14.5 and Table 14.4.

The growth of the publications involving more professions/fields of work in 10-year time intervals leads to a deeper understanding about the impact of the professional
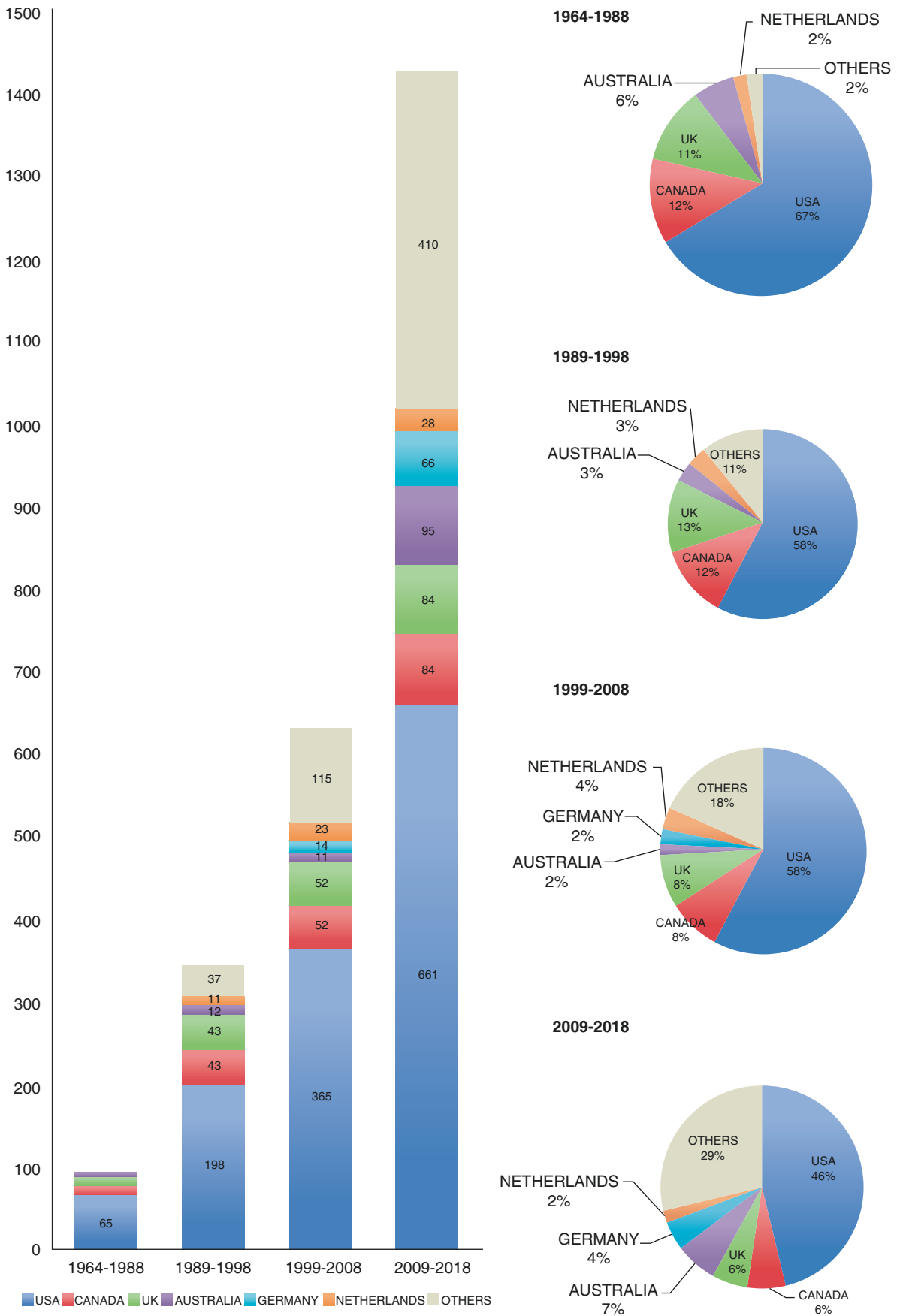
Fig. 14.3 The distribution of the literature among the countries in 10-year time intervals
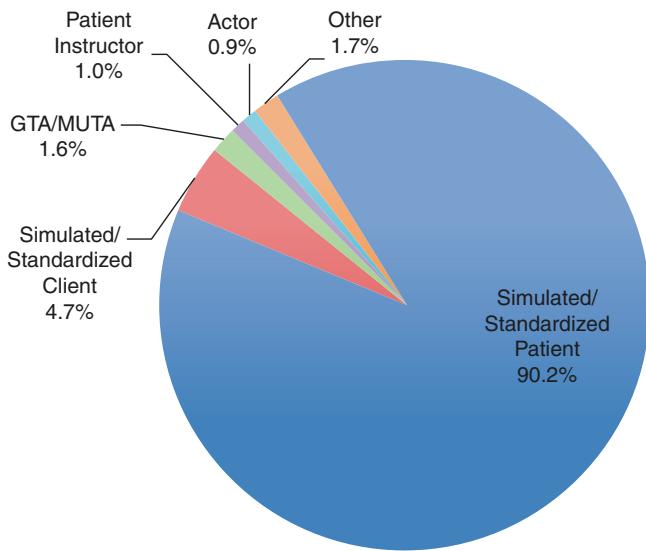
Fig. 14.4 The distribution of the terms defining the subject of the SP methodology in the literature

Table 14.2 The list of the terms defining the subject of the SP methodology in the literature, and the number of publications using each term

Term	Number of publications	Term	Number of publications
Standardized Patient	1528	Standardized Participant	8
Simulated Patient	718	Role Player	8
Simulated Client	94	Programmed Patient	5
GTA (gyn teaching associate)	35	MUTA (male uro teaching associate)	4
Patient Instructor	25	Simulated Family Member	4
Actor	23	Simulated Parent	4
Standardized Client	22	PETA (physical examination teaching associate)	3
Standardized Parent	11	Simulated Student	2
		Simulated Participant	2

Table 14.3 The list of the equivalent terms for "SP(s)" in the original languages

Term	Language
Simulationspatienten	German
Standartuli Pacienti	Georgian
Simulatiepatiënt	Dutch
Patients Simulés/Standardisés	French
Pazienti Simulati/Standardizzati	Italian
Bimar Standard	Persian
Pacjent Standaryzowany/Symulowany	Polish
Pacientes Padronizados	Portuguese
Paciente Simulado/Estandarizado	Spanish
Standardiserad Patient	Swedish
Standart/Standardize/Simüle Hasta	Turkish

Fig. 14.5 The distribution of the professions/fields of work using SP methodology
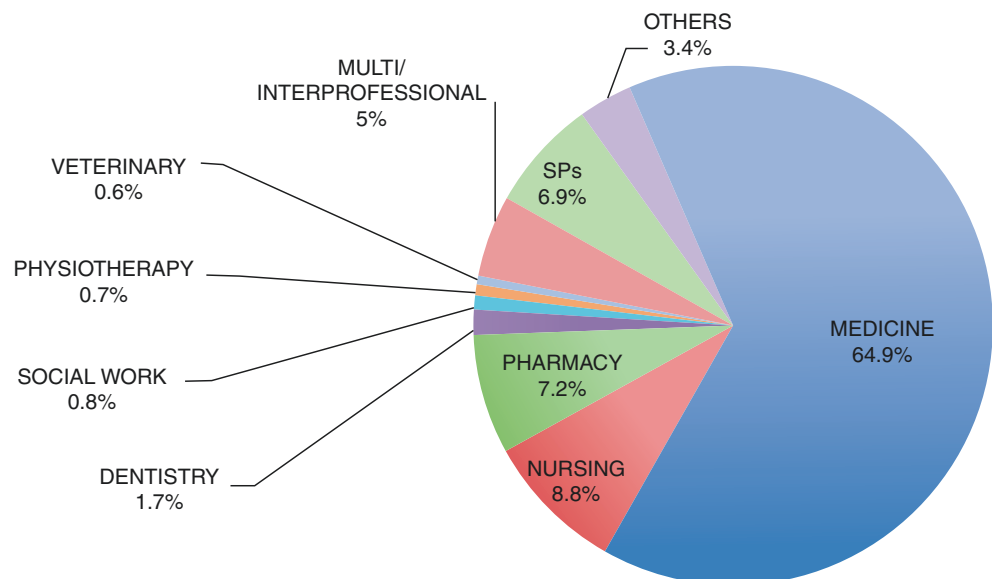
Table 14.4 The list of the professions/fields of work using SP methodology, and the number of publications in each area

Profession/field of work	Number of publications	Profession/field of work	Number of publications
Medicine	1617	Physician Assistants	6
Nursing	218	Dietetics	6
Pharmacy	180	Athletic Training	5
SPs	171	Pastoral Education	2
Multi/Interprofessional	124	Midwifery	2
Dentistry	42	Law	2
Social Work	21	Psychology	2
Physiotherapy	17	Combat Medical Technicians	1
Veterinary	16	Family Planning Providers	1
Speech-Language Therapy	12	Family Therapy	1
Emergency Medical Services	9	Massage Therapy	1
Teacher Training	8	Radiology Technicians	1
Audiology	8	Phone Counsellors	1
Occupational Therapy	8	Tanning Salon Employee	1

dissemination on the development of SP methodology (Fig. 14.6). Medicine was almost the only profession using SP methodology in the first 25 years (92% of the literature). There were only a few reports of using SP methodology in nursing and pharmacy: Four studies in nursing in the USA, and one study in pharmacy in Thailand. The consequent 10-year time interval saw dissemination of SP methodology among various professions. The rate of the literature from medicine was 81%, and dentistry, physiotherapy, occupational therapy, speech-language therapy, physician assistants were the new health professions incorporating the SP methodology in 8 different countries (USA, Canada, UK, Australia, Japan, Nepal, Bolivia, and Peru). Social work and law were the two professions beyond health sciences using the methodology between 1989–1998. The rate of the literature from non-medical professions reached to 25% between 1999–2008.

While the contribution of non-medical fields was growing in the past 10 years, the rate of medicine dropped under 60% for the first time in 2013. During that time, the ASPE Board discussed a change in the logo of the association that reflected the increased use of the SP methodology by other professions beyond medicine. ASPE introduced its new logo omitting the caduceus of medicine in 2014.

In the years between 2009–2018, medicine is still the leading profession/field of work (55%) in the applications of SP methodology, followed by dentistry (12%) and pharmacy (10%). Multi/Interprofessional studies became an important contributor (7%) to the SP literature in that time interval.

Defining an International Framework for SP Methodology

An international framework template has been designed with guidance from ASPE and AMEE documents, contributions from SPEs from a survey and the results of several studies [6–13]:

I. ASPE
1. ASPE Bylaws [6] and definition of the SP Educator
2. The ASPE Core Curriculum provides a framework for the methodology [7]: (i) Foundations of SP Methodology – Best Practices and Essential Skills (history of SP methodology, case and checklist development, training standardized patients, feedback techniques, techniques to debrief SPs), and (ii) Foundations of SP Methodology – Best Practices in Administration (recruiting, interviewing and maintaining, strategic management of an SP program, designing policies and procedures, knowledge management & data considerations).
3. In 2017, ASPE published it's Standards of Best Practices (SOBP) [8] organized into five domains: safe work environment; case development; SP training for role portrayal, feedback, and completion of assessment instruments; program management; and professional development.

II. AMEE

The AMEE Guide on Simulated Patients in Medical Education, authored by an international group reflects a certain part of the methodology focusing on terminology, attributes of SPs, recruiting and training SPs, types of SP performance, and research into SP use [9].

III. Publications & Studies
1. An article by a group of European authors on simulated patients compared the programs in Scotland, the Netherlands, the Republic of Ireland, and Belgium categorizing the data into SP demographics; recruitment, training and quality assurance; case development, application of SP methodology, infrastructure and funding [10].
2. An international group of authors discussed the key characteristics of the programs from Australia, Canada, Switzerland and the UK according to recruit-
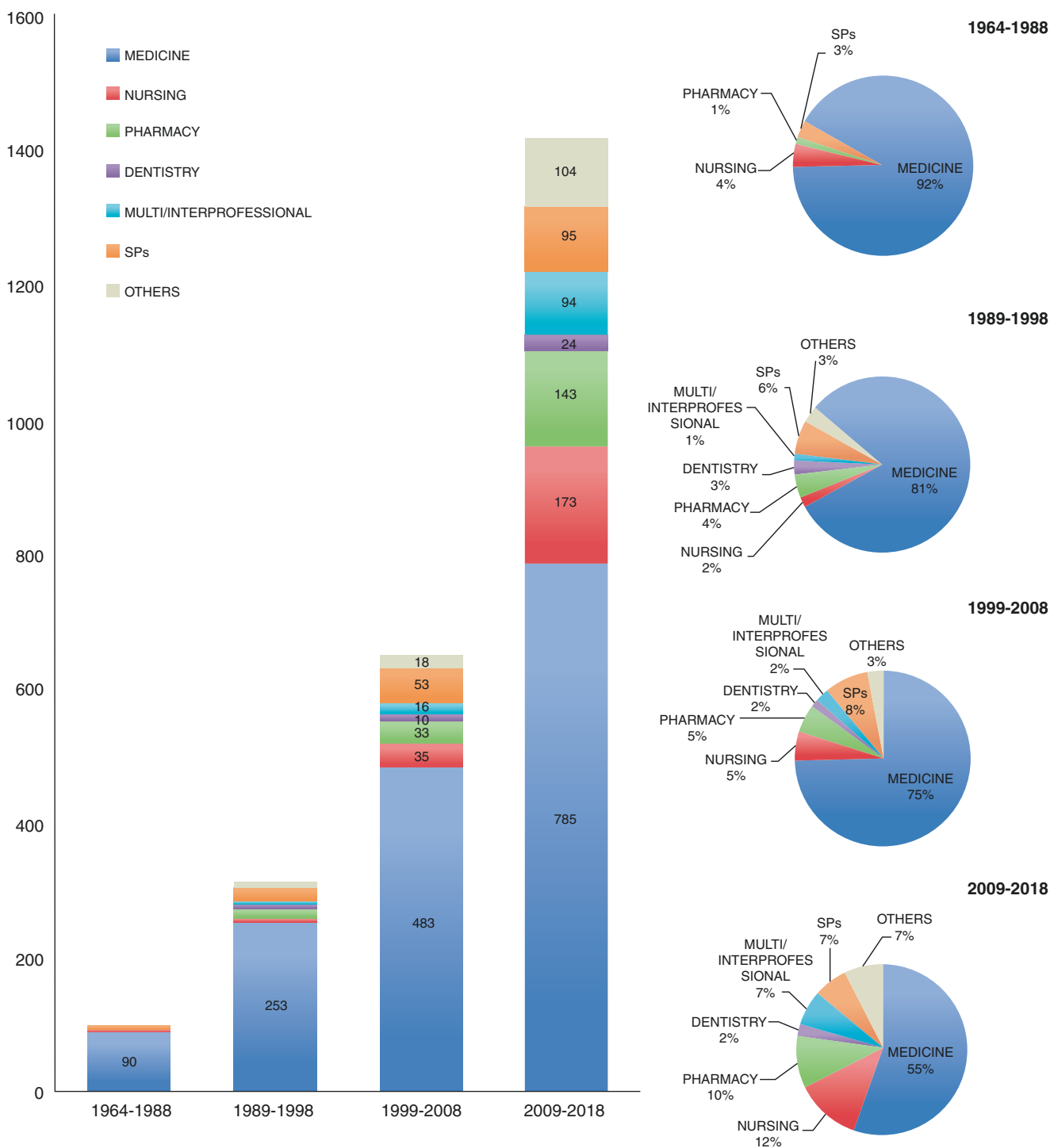
Fig. 14.6 The distribution of the literature among the professions/fields of work in 10-year time intervals

ment strategy, training program, principal focus, funding model, research and future plans [11].

3. A study from South Korea examined the roles of SP Educators and established their job description [12]. The job description consisted of 10 duties: SP recruitment, SP management, SP training, lessons and evaluation, scenario-related tasks, budget operation, communication, coordinate with faculty, administration, and self-development.

4. In a recent study from Australia, the authors investigated the pillars of simulated patient programs, and identified the key structural components under four themes: Managing SPs, selecting SPs, preparing SPs, and directing SPs [13].

This **international framework template** will shape the rest of this chapter [6–13]:

I. Defining SPs and SP educators
II. Administrative structure of SP program
III. Recruiting and training SPs
IV. Creating documents
V. Managing an SP program
VI. Quality improvement
VII. Professional development

Defining SPs and SP Educators (SPEs)

The terms "Simulated patient" and "standardized patient" are also the most preferred terms outside the USA. The terms "simulated" and "standardized" are generally used interchangeably though the differentiation between the two are clearly defined and accepted: "Simulated" is the term when the activity focuses on simulation and training where small variations between performances are to be reasonable, and "standardized" is the term when the performances should be more standardized, consistent and equivalent like in a high stakes exam [9, 11, 13]. In some cases, those two terms were used in such an interchangeable manner that the authors preferred "standardized" in the title and "simulated" in the text [16].

Internationally, the use of SP methodology beyond the healthcare field is very limited. The terms "simulated clients" and "standardized clients" are primarily used in the healthcare services: pharmacy, veterinary, social work. There is only one article in our review using "simulated client" in the field of law [14], and with a unique study using "simulated clients" with tanning personnel from Germany:

> *According to the regulations in Germany, personnel of tanning salons is mandated to offer counseling regarding individual skin type, to create a dosage plan with the customer and to provide a list describing harmful effects of UV radiation. We performed a simulated client study visiting 20 tanning salons to evaluate whether legal requirements were followed or not.* [15]

Fourteen of the respondents (33 in total) of our survey mentioned the use of "simulated"; 10 of them "standardized", and 9 of them both terms in their programs. Besides using "patient", they also preferred "participant" and "client".

The "patient" is widely included in various educational activities ranging from interprofessional training to unannounced SPs (Figs. 14.7, 14.8, 14.9, 14.10, 14.11, 14.12, 14.13, 14.14, and 14.15).

A special application of SP methodology has SPs visiting the health professionals in their workplaces. A large number of the studies from various countries (e.g., Australia, Canada, the UK, Brazil, Bolivia, China, Ethiopia, Ghana, India,

Fig. 14.7 An interprofessional training session with the engagement of SPs in Turkey

Indonesia, Kenya, Madagaskar, Mexico, Nepal, Nigeria, Peru, Romania, Slovenia, Sri Lanka, South Africa, Senegal, Tanzania, Thailand, Uganda, Vietnam, Zimbabwe) reported on that very specific application of the methodology. Most publications were in the fields of medicine and pharmacy; and a variety of terms were used: "unannounced" or "incognito", "simulated client", "undisclosed standardized client" [18, 19], "mystery shopper" [20], "mystery client" [21], "mystery patient" [22], and "mystery customer" [23].

Another term of SP methodology is "GTA: gynecological teaching associate" with several variations for "G" like "gynecologic", "gynecology", and "genital". There were studies from Australia, Belgium, Canada, the Netherlands, Sweden, the UK and Turkey. The authors of the study from Belgium preferred a unique term for GTA: "intimate examination associate" [17].

Comparing the literature with and without the USA revealed that the studies in pharmacy had a larger ratio in the literature excluding the USA: The first three professions were medicine (64.9%), nursing (8,8%) and pharmacy (7.2%) in the entire literature while the first three of the literature without the USA were medicine (60.8%), pharmacy (11.7%) and nursing (7.4%). The probable reasons for that

change were; SP methodology was extensively used in pharmacy in Australia (18.8% of Australian literature on SP methodology), unannounced SPs were widely used in pharmacy in many countries (the non-US literature in pharmacy was from 39 countries), and pharmacy was the major field of SP methodology in Japan (35.1% of Japanese literature on SP methodology). Japanese SPs did not accept physical examination of certain body parts, and that was a limitation for the use of SP methodology in medicine in Japan [24]. Furthermore, all of the activities in pharmacy were based on communication, and that might cause wider use of SP methodology in pharmacy in Japan.

The studies investigating SPEs are very rare in the literature. The ASPE SOBP defines SPEs, as professionals who work to develop expertise in SP methodology and are responsible for training and/or administering SP-based simulation. In US literature, SPEs are comprised of a diverse group of professionals serving a variety of educational roles including directors, coordinators, trainers, technicians, and administrators. They came from a variety of backgrounds including teachers and former SPs. Many had a bachelors degree followed by a master's degree. Some worked exclusively with SPs, while some might be faculty or healthcare professionals who worked with SPs as part of their clinical and/or academic roles [8, 25, 26].

SPEs are described in a similar way with a few variations in the non-US literature. The responsibilities of the SP "trainer" as defined at Dundee University is the person responsible for the assessment of training requirements, development of training program, assessment of training, evaluation of SP program, and the development of clinical programs and scripts [27]. The SP Programs at Gippsland Medical School, Imperial College London and University of Applied Sciences Lausanne, employ "program leads" who have academic appointments, and also responsibilities outside the SP program such as communication, clinical and education. The "leads" provide training to SPs and

Fig. 14.8 An SP-based training session in Chile

Fig. 14.9 A SP based training session enhanced with technology in Belgium

Fig. 14.10 A medical student interacting with an SP in Kazakhstan

Fig. 14.11 A healthcare team interacting with an SP in Ecuador

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tutors and share the responsibility for role development and curriculum design. Research activity is also expected. All the staff (administrators, educators, clinicians, academics) associated with SP program is defined as faculty [11]. In a study conducted with SPs from 8 different medical and nursing schools in Switzerland, the authors designed a SP-oriented working spreadsheet as a good basis for setting up and maintaining SP programs and conducting SP training sessions. The responsibilities of an SP trainer were defined in that study as providing feedback to SPs,

creating opportunities for SPs for individual development, giving autonomy and responsibility to SPs in the activities, and improving work environment [28]. The aim of the most comprehensive study conducted with SP trainers was to examine the roles of SP trainers in Korea [12]. The authors established a job description for SP trainers consisting of 10 duties, 25 tasks, and 76 task elements. The first three duties with higher degree of importance are "SP training" (4.79), "SP management" (4.67), and "communication" (4.63).

Fig. 14.12 An SP based team training in France

Fig. 14.13 A SP-based station at OSCE in Georgia

The background of a SP educator varies in different countries. In a German study among 30 out of 36 medical schools, the results showed that German medical schools rarely used SP trainers to run the programs, and the authors concluded that "*SP trainers should be introduced into German SP programs to release medical doctors from SP training and organizational tasks*" [29]. In a Japan study, 19 of the 33 SP educators were medical doctors, five were non-MD members of faculty, and four are health workers [24]. In the study,

describing the implementation of OSCEs in Taiwan, the cases were written by the clinicians, and SPs were trained by those clinicians [30]. According to the results of our survey, 24 of the 33 programs have a SPE with a healthcare background; and 7 of the programs have a SPE with a non-healthcare background.

Despite the importance of their roles in SP methodology, SPEs around the world have remained understudied with the lack of a clearly defined job description, and lack of

professional development, and career track. This may lead to gaps in attracting, motivating, supporting novice SPEs, and deficiencies in improving the program outcomes, high-quality practice and research.

Fig. 14.14 An SP-based training enhanced with moulage in Turkey

Fig. 14.15 An SP based encounter in Chile

Administrative Structure of SP Programs

Location & Budget

A number of medical and nursing schools have made a major investment to support the development of simulated patient programs through the development of institutional facilities. The programs in Scotland, Belgium, the Netherlands, Switzerland, Germany, Korea, Japan, and many of the programs in Ireland, Australia, and the UK were located as a part of the dedicated skills training facilities and funded through institutional budgets allocated to the curricula. The institutional budgets generally covered the payments of SPs, but had limitations for the operational expenses (e.g., travel costs, subsistence, equipment) in some programs [10, 11, 13]. The University of Toronto was the example for a program operating as a business cost-recovery funding model based on fee for service [11]. The respondents of our survey reported that they work in a department/center of a university (18/34), a governmental, independent center/department (8/34), a department/center of a school (4/34), a non-governmental, independent center/department (3/34), and a hospital program (1/34).

The results of a US study with the participation of 61 institutions are shared here to compare the similarities and variations [26]: *"All participants reported having a formal SP program defined as one or more full time staff persons dedicated to the recruitment, hiring, and/or training of SPs. Seventy-four percent (n=42) reported providing services for more than 1 institution or educational program. When asked about locations for SP activities, 86% (n=49) reported having designated space available for program activities. 56% (n=32) reported that this space was shared for purposes other than SP-related activities."*

Dedicated Staff

Ker et al. [27] suggested as the first of their 12 tips for setting up a simulated patient program (they preferred "bank" instead of program) is to identify dedicated staff to take charge of the program. Most programs require two positions: coordinator and trainer. The responsibilities of the coordinator are to create an SP recruitment policy, develop and maintain a database of SPs, monitor the welfare of SPs during programs, process travel and incidental expenses, and hospitality. Those responsibilities were also defined as a part of SPEs job description: "SP management" and "budget operations" [12] or described as the basis of the "*pillars model*": "managing SPs" [13]. Administrative and logistical issues included under that title are reviewing applications, maintaining a database of SP details, establishing contracts, arranging payments, liaising with SPs and faculty to coordinate and set up simulation activities, scheduling activities, booking rooms and equipment's, audiovisual management, and copying program materials [11–13].

The categories of SPs can be defined in two ways: Payment and professional background. The program may prefer recruiting volunteers or paid SPs regarding its infrastructure and budgeting. Having a professional background in acting, healthcare or a specific field related to the activity can be a choice for a SP program while some programs in contrast, engage lay people in the activities. The categories of the SPs in Scotland, Ireland, the Netherlands, and the UK amongst the surveyed institutions in the study are lay persons with minimal amateur actor experience (28%), actors with professional experience (18%), volunteer patients (23%), teaching staff (11%), and medical students (10%) [10].

Volunteer SPs are used for teaching purposes; and paid actors in more complex situations (psychiatric cases, breaking bad news) at the University of Aberdeen. In contrast, lay SPs are used for all teaching and assessment purposes at University of Maastricht [9]. Most SPs have a formal actor training at Imperial College and University of Toronto since London and Toronto have relatively large performing arts communities. Gippsland Medical School and University of Applied Sciences Lausanne rely on SPs who have no actor training [11]. In a study involving 332 SPs in Japan, 42% of SPs were housewives and 20% of SPs were unemployed [24].

The professional background of the persons employed as SPs varies among the countries and institutions according to the needs of the activities, the participants, and the level of education: "psychiatric nursing staff" in Zimbabwe [31], "graduate midwives" in Uganda [32], "clinical faculty" in United Arab Emirates [33], "family medicine residents" in Thailand [34], "drama students" in South Africa [35], and

"pharmacy students" in Saudi Arabia [36]. Two master's program students role-play as simulated patients in Nepal reflected on their work with their high level of motivation [37]:

> We wanted to emphasize to the students, the effect of disease on the daily lives of the patients, the need to remain updated with recent developments and encapsulate the points the doctor has to communicate to the patient. ... We came to know about the attitude, knowledge and capacity of the students to apply their skill and knowledge in the context of South Asia. Our MBBS students after receiving the training will be better communicators in their future practice.

Recruiting and Training SPs

There are various ways of recruiting SPs but similar among the countries. Recruiting the appropriate SPs is critical to start a program. From the start, establish the principles and procedures for recruitment. You should define the advertising strategies, application procedure, criteria for selection, interviewing and screening processes [9–11, 27]. You can choose one of the several advertising strategies: asking colleagues or local communities; placing posters and delivering flyers at certain places like announcement boards, hospital waiting rooms, drug stores and sports clubs; adverts in local papers, university web page and social media [9, 10]. Once you start the program, SPs can be recruited through word of mouth via your SP community [9, 10, 38]. The programs in our survey prefer word of mouth (25/34), advertising at the institutional website (10/34), asking professional communities (5/34), and adverts in local newsletters and radio (3/34) as the advertising strategies.

You can set a face-to-face or a web-based application procedure. Recruiting lay persons (volunteer or paid) or persons with professional backgrounds may require small alterations in the selection criteria.

You need to define screening principles and procedures: The opening questions should include "Why are you interested in becoming an SP?" [9, 11], "Do you, or a member of your family, have any negative experience of dealing with illness?" [9] and "Have you encountered or accompanied a situation that affected you and you have not been able to cope with it yet?". You should provide information about the activities going on in your program, let him/her observe a session or its video recording. A "conditional" or "trial" period should be determined that gives you the opportunity to explore the suitability of the applicant [9, 11]. You need to observe the applicant's capacity to understand the scenario, learn the critical steps and portray the participant in the script. You may need time to discover the applicant's thoughts and ideas on cultural issues (religion, gender, politics) that may interfere with role-playing.

The special needs of the learning activity you are recruiting SPs for will be your primary determinants for the attributes of SPs. You may be looking for a special group of people like obese SPs in Iran [39] or SPs with indigenous and mestizo profiles in Peru [40].

Training of SPs can be achieved at two levels: core skills and scenario-specific skills. SP educators train the novice SPs in core skills for role portrayal and learner-centered feedback [11, 13, 41]: *"Core skills included role-play and acting, how to review and learn a new scenario, character development, and appropriate disclosure of patient information to learners."* [13]. Training for feedback provides guidance to SPs on the format of feedback (verbal or written, immediate or video-recorded, rating forms or global) [11]. Training SPs for scenario-specific skills includes providing the story, how much information SPs share with the learners, expected learner and SP reactions, and feedback [13]. Training of SPs can also be classified in a purpose-driven way: teaching and assessment [9]. Teaching activities include communication skills, history taking, physical examination and procedural skills using SP's own body, or the part task trainer attached to the body (hybrid simulation). In training SPs with the purpose of assessment, the focus of training is not only limited to presenting the case, symptoms and emotions in a consistent manner but also observing the learner's performance and evaluating him/her via a checklist [9, 13]. Delivering feedback from their trainers and developing a guideline for the assessment would be useful to increase the inter-rater reliability between SPs ratings [42].

The respondents of our survey defined their programs based on teaching only (5/34), teaching and formative evaluation (27/34), and summative evaluation (21/34). The training programs for SPs focus on role portraying (27/34), providing verbal feedback (26/34), providing written feedback (9/34), and completing forms/tools (15/34). The training courses are classified as 1–2 days introduction course (11/34), 3–5 days introduction course (7/34), case specific half-day courses (20/34), and case specific 1-day courses (10/34).

The duration of the training sessions in the non-US literature, ranged from 2 hours to 3 days, and the activities varied in the forms of didactic sessions, small group discussion, role-play, one-on-one discussion [9, 11, 13, 41, 43, 44]. The use of video in standardized patient training enhanced the accuracy of SP portrayal [45]. In addition, the inclusion of guided self-assessment and reflection, and peer feedback in SP training were found to be useful when completed in a supportive, practice- based small group setting [43].

Creating the Documents

SPEs alone or in collaboration with the content experts develop cases (scenarios) to be able to train SPs and conduct teaching or assessment sessions [42, 46–48]. In our survey,

educational staff developed cases themselves in 28 out of 34 programs; they preferred case-based collaboration in 21 programs, and worked with consultants for specific areas in 15 programs. Cases originate from real life experiences [49]. Each program has its own template for case development designed for various purposes [46–50]. The templates for standardized cases can be longer including several details. Those details guarantee the consistent performances of SPs. The templates for simulated cases may be shorter since the cases can be enriched by the SP's individual experiences.

While developing the scenario, SPEs also develop the checklists or rubrics for SPs and assessors as studied in France, Turkey, Australia and Canada [46–48, 50, 51]. The studies for the validity and reliability of the tools should be conducted by SP educators like the ones in Iran, Turkey and Canada [42, 47, 48, 52, 53].

Managing the Program

SP methodology is used mainly in four fields: instructional activities, evaluation process, research (development of a procedure or improvement of a process), and quality assurance on healthcare services.

A. Instructional activities with SPs are designed at undergraduate, graduate and continuing professional development levels with a focus on communication skills, clinical skills, behavioral skills, team training, and counselling skills: Kurtz offered a practical conceptual framework about how to teach and learn communication systematically and intentionally in veterinary medicine [54]. Rethans et al., provided an overview of the formats used most in undergraduate medical education with SPs in Belgium and the Netherlands [55]. Nousiainen et al., studied the cost and faculty work-hours analysis of implementing simulation as a teaching and evaluation tool in the competency-based, residency training program in Canada [56]. Himmelbauer et al., concluded that students and teachers appreciated SPs' competence of role play and of giving feedback in psychiatry in Austria [57]. Janjua et al., compared use of GTAs and conventional pelvic mannequin-based teaching at the start of a five-week clinical placement in obstetrics and gynaecology in the UK [58].

B. Assessment of learners can be organized with the engagement of SPs and tutors participating as assessors. SPEs conducted a number of studies around the world focused on assessment: measuring professional behaviour in Canadian physical therapy students' objective structured clinical examinations [59]; the influence of gender on the communication skills assessment of medical students in Taiwan [60]; feasibility of implementation of a dermatology OSCE in a Spanish medical school [61]; feasibility

and acceptability of the OSCE in students in vascular medicine in France [62].

C. The research using SP methodology are fewer especially in the non-US literature but growing fast: Researchers designed a study to develop and test a new method to measure the usability of absorbent incontinence care products from the caregivers' perspective in Sweden [63]. The potential of simulator-based teaching to train medical teams in the treatment of chemical warfare casualties was studied in Israel [64]. A group of authors studied whether social media can improve joint Israeli-Jordanian search and rescue operations following a regional earthquake [65].

D. The practices or research on quality assurance of the healthcare services represent one of the fields that SPs (especially simulated clients and unannounced simulated patients) are widely used; and may be the reason how and why many professionals in various countries have met SP methodology. A study was conducted to assess the effects of a multicomponent intervention (regulatory enforcement, education and peer influence) on private pharmacy practice in Vietnam [66]. The authors studied the role of private drugstores in sexually transmitted infection management in rural Tanzania [67]. The authors concluded that therapeutic class and busy times were the important predictors of no counselling about prescription medicines in Swedish pharmacies [68]. A study was designed to evaluate the impact of a program to reduce the dispensing of antibiotics without a prescription in Spain [69]. Licensed drug sellers' levels of knowledge and behaviors in pregnancy-related anemia were studied in Nepal [70]. Knowledge and adherence to the national guidelines for malaria diagnosis in pregnancy among healthcare providers and drug-outlet dispensers were studied in rural Western Kenya [71]. Assessment of diarrhea treatment and counseling in community pharmacies was studied in Baghdad, Iraq [72]. The quality of HIV testing services for adolescents was studied in Cape Town, South Africa [73].

The program directors and SPEs should have a clear understanding of the methodology while contacting with the stakeholders. It is important in managing the daily activities, staff, SPs, and learners or clients in the office, department or the center. It can also be groundbreaking to reach new professionals, companies and collaborators for innovative educational and research projects.

Quality Improvement

Quality improvement is one of the key challenges of SP programs, and all program directors. It is important to clearly articulate the professional responsibilities for all those involved in SP work. The most notable finding of a study conducted in the UK, was the lack of shared understanding of the purpose and process of SP-based teaching by different stakeholders (SPs, students, tutors, clinicians, and researchers). The guidelines on responsibilities raised awareness of the interdependency of stakeholders, and the need for an environment facilitating partnership models for education [74].

SPEs need to set their own principles and procedures about SPs, the methodology and the program. When you talk about SPs, there are two perspectives: quality improvement for the learners/clients and quality improvement for the SPs. You should create a safe environment for both.

Quality improvement for the learners/clients and the education activity includes the organization and design of the content and context of the scenarios, SP performances, feedback from SPs, video recordings, and debriefing sessions in such a way that you ensure your learners/clients will not get harmed physically, psychologically and socially. Nestel et al. addressed the complex notions of values and value in SP-based learning in their article, determining the relational issues for each step that had gone unchecked and were under reported in the literature [75].

Quality improvement for SPs includes the appropriate selection for the activity, briefing and de-roling/debriefing, role portrayal and feedback to the SP. Cultural issues and previous experiences of SPs should be discussed during the selection process for each learning activity. As outlined in the ASPE SOBPs [8], brief the SPs prior to the interaction including orientation to the objectives of the day, and calibration. Observe and monitor the behaviors and emotional reactions of SPs during the role portrayal and be ready for a prompt intervention [13]. Two studies were conducted on the quality of SP performances in the UK: Amount of SP talk and interruptions in simulated consultations [76], and the "intimate" perception of physical examination by SPs [77]. Provide your SPs with opportunities to reflect and provide feedback to them after interactions for higher quality performances. While monitoring the performances of SPs in role portrayal and feedback, you will need valid, reliable and feasible instruments: "Maastricht Assessment of Simulated Patients" (MaSP) is a tool developed to assess the performance of SPs in an educational setting in the Netherlands [78]. "Modified Quality of Simulated Patient Feedback Form" (mQSF) is another instrument developed by an international group to assess the quality of feedback provided by simulated patients [79]. "Nijmegen Evaluation of the Simulated Patient" (NESP) developed in the Netherlands, assesses the quality of the SP's role-playing and feedback abilities within the context of giving feedback from a patient perspective while also focusing on students' communication skills and medical knowledge [80].

SPs are the backbone of the methodology. Take care of them and assure their well-being to get better service in return. A study was conducted to understand the reactions, values, and perceptions that underlie and influence SP behavior in Switzerland: *"Standardized patients feel motivated, engaged, and willing to invest effort in their task and do not mind demands increasing as long as the social environment in SP programs is supportive. The role of the SP trainer and the use of feedback are considered very important"* [28].

Another study drew attention to unexpected pathological findings encountered by students and teachers when examining one another or SPs [81]. You should be aware of this possibility, encourage your learners/clients/trainers to disclose any unexpected findings.

A study aiming to explore how working as an SP affected their private life as patients was conducted in Germany. The results revealed that they were more attentive, had a better understanding of the circumstances under which doctors worked, and acted more self-confidently [82]. Bokken et al., conducted a study on SPs to explore the occurrence and severity of stress symptoms related to performing patient roles. The results raised concern about symptoms of stress in SPs: fatigue, dissatisfaction with own or others' performance, nervousness, anxiety about things that might happen during the performance, and anxiety about the patient role [83]. In the consequent study of the same authors, their aim was to find ways of preventing negative effects of simulation impacting on SPs: *"Factors that appeared to affect the impact of performing included: the type of role (whether it is emotionally complex or not); the number of consecutive performances; the length of time between performances; the giving of feedback; the amount of experience, and students."* [84]. Two studies from Belgium and Chile enhanced those results with special focus on the number of consecutive performances, and the type of role. The authors from Belgium explored the effect of simulating medical conditions on simulated patients who had experience with repeated simulations during training sessions and OSCEs. SPs believed that their medical knowledge improved, their health-seeking behavior and the relation towards their own caregiver changed. Negative effects were stress, anxiety, exhaustion, dissatisfaction and sleeping problems [85]. The findings of the study from Chile, showed that interpreting an HIV-related role produced emotional, behavioral, and physical effects on SPs during the performance, and had a long-term impact on their perception of their personal health and risk [86]. Another study from Turkey aimed to determine the anxiety levels of SPs who received bad news and to explore the effects of relaxation exercises during the de-roling/debriefing phase on the anxiety levels of the SPs: *"Relaxation exercises enabled the SPs to emotionally detach themselves from the difficult scenarios portrayed by them; in addition, the SPs were relaxed and felt a sense of well-being."* [87].

Professional Development

Professional development can be defined as achieving a higher-level professional knowledge and skills through participating in related educational programs and academic conferences, and additionally being able to manage personal health and time [12]. There is no formal, structured educational program for SPs and SPEs on SP methodology but various short-term courses at the institutional level are available. The ASPE Scholars Certificate Program is designed for any ASPE member wanting to participate in a structured program to develop scholarship skills. Scholars are required to complete 6 workshops/courses over 2 years at ASPE or other similar research meetings. Once the workshops or courses are complete, a certificate of completion is presented to the ASPE scholars [88]. CHSE certification by SSH will help distinguish oneself as an experienced educator in healthcare simulation education [89]. The annual conferences organized by ASPE, SSH, SESAM, INACSL, ASPiH, and many national/regional simulation associations provide opportunities for meeting, updating and deeper learning. ASPE has been organizing an one-day SP Day prior to annual conference recently. A number of institutions and hospitals are providing degree programs on simulation at various levels like certificate, diploma, fellowship and masters degree [90].

Considerations and Future Expectations

SPEs who contributed to this chapter through completing the survey and providing other materials (ie, photographs) consider the benefits and challenges of SP methodology, the developments they have witnessed, and their future expectations.

Benefits of Working with SPs

Flexibility, availability, patient safety, learner safety, variety, realistic experience for students, feedback from a consumer perspective, community involvement in medical education from their point of view, deliberate practice of complex skill sets, more qualitative, appropriate range of experiences, reminder of why and what we do, authenticity.

Challenges of Working with SPs

Portrayal of difficult cases, cost, variability in behavior, need for more training on feedback, gender and ethnicity of the SPs, finding children SPs, fidelity, unprofessional behavior, recruitment, sustainability, improving quality of feedback and evaluation, incorporating technology, convincing the authorities that it is worth investing on SP methodology.

Surprising Developments in the Field

– *"I appreciate the strong effort in defining a quality system that allow also to use SP in the evaluation system."* (L.M.)
– *"One of the things I get surprised is that people who participate in the program feels committed to the medical education. They get involved and feel that they can do the difference in the way health professionals care patients."* (W.C.)
– *"The expansion of the field across health professions and the 'professionalization' of the field."* (E.A.)

The Most Important Developments Witnessed So Far

Integration of the soft skills into the clinical context, certifications, standards of best practice, textbooks related to SP methodology, increase in popularity, online simulated patient websites, use of mobile devices and apps, training SPs for intimate examinations, hybrid simulation: the best of 2 worlds.

Future Expectations

– *"I hope to reach SPs community of practice all over the world."* (A.A.)
– *"Continued increase of standards of best practice including extending to PETA and sensitive exam training, increased growth and 'professionalization' of SPs/SP Educators/Simulation Educators, and expanding the use of simulation to other health professions that use it minimally."* (E.A.)
– *"Increased use of technology to have abnormal findings. Augmented reality & virtual reality to provide asynchronous learning via virtual "standardized patients". More validated measurements of communication skills (empathy, etc) – maybe through the integration of technology (facial analysis of students throughout encounter)."* (J.V.)

Appendix 14.1

PubMed and Web of Science was systematically searched in March 2019 to identify articles with certain keywords excluding 2019 without using any additional filters. The articles found, are listed according to the keywords and databases below:

Keyword	Number of articles	
	PubMed	Web of science
"standardized patients"	1261	1571
"simulated patients"	1048	959
"standardized participants"	8	11
"simulated participants"	11	16
"standardized clients"	10	18
"simulated clients"	65	68
"gyn∗ teaching associates"	23	14
"male uro∗ teaching associates"	2	1
"physical examination teaching associates"	187	3
"patient instructor"	26	22
actor	18	16
"programmed patient"	16	10
"role players"	57	74
TOTAL	2732	2783

Inclusion/exclusion criteria is defined as including any information or description that provides who, when, how and why used SP methodology. The abstracts and sometimes the entire articles, were reviewed. Of the total 5515 articles identified, 2491 met the inclusion criteria: this data was used for this chapter.

Appendix 14.2

A survey was designed in March 2019 using Google Forms and delivered via various social media, networks and webgroups. The items included in the survey are presented below:

Your country
Your institution
Your program
Year your program started
Term(s) you prefer for your SPs
Standardized patients
Simulated patients
Standardized participants
Simulated participants
Standardized clients
Simulated clients

Actors	
Confederates	
The way you call them in your own language	
Your team members in your program	
Program Director (with healthcare background)	
Program Director (with non-healthcare background)	
SP Educator (with healthcare background)	
SP Educator (with non-healthcare background)	
IT Person/Technician/Simulation Operations Specialist	
Administrative Secretary	
Proctor	
Cleaning person	
Content experts of your cases	
Case based collaborators	
Consultants for specific areas/fields	
Educational staff	
Number of your SPs	
5–10	
11–30	
31–50	
More than 50	
Way of recruiting SPs	
Advertising on the institutional website	
Advertising in local newsletters	
Advertising on the radio	
Word of mouth	
Training program for novice SPs	
1–2 days introduction training	
3–5 days introduction training	
Case specific training (half day)	
Case specific training (1 day)	
Case specific training (2 or more days)	
Content of the training program	
Role portraying	
Providing verbal feedback to the learner	
Providing written feedback to the learner	
Completing forms/tools for evaluation	
Purpose of SP-based educational activities	
Training only	
Training and formative evaluation	
Summative/High Stakes evaluation	
Use of hybrid simulation	
None	
SPs with partial task trainers/haptic simulators	
SPs in a case with high fidelity simulators	
Quality management process for SP portrayal	
List 3 benefits working with SPs	
List 3 challenges working with SPs	
Your current membership	
None	
ASPE (Association for Standardized Patient Educators)	
SSH (Society for Simulation in Healthcare)	
SESAM (Society in Europe for Simulation Applied to Medicine)	
Your familiarity with ASPE Standards of Best Practices	
None	
Incorporating them	
Planning to incorporate them	
How has the field of SP methodology developed in ways that have surprised you since you first began your career?	
What are some of the most important developments in the field of SP methodology that you have seen in your career?	
If you had a crystal ball and could predict what the field of SP Methodology would look like in 20 years what would you see	

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The Standardized/Simulated Patient Methodology Around the World (Part II) Implementing the Standardized Patient Methodology at the University of Chile

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Abbreviations

ASPE   Association of Standardized Patient Educators
CHC   Centro de Habilidades Clínicas
CPR   Cardio-pulmonary resuscitation
OSCE   Objective Standardized Clinical Examination
SOBP   Standards of Best Practice
SP   Standardized/Simulated Patient
SPE   Standardized Patient Educator

Introduction

As health educators, we have had to live a transition from the classical clinical teaching to a broad innovative world of new ideas and trends, questioning what we had always done and our roles as professionals and teachers. Fortunately, our experience has been well enough to tell the story, so we can share our experience, showing what we have learnt the last 20 years as part of the University of Chile. Globalization of healthcare education has challenged and supported us, so we are clear that only working as a community we will meet our objectives.

As most health professionals, our traditional undergraduate curriculum was a path to walk from theory to practice (basic, preclinical and clinical). We learned from lectures, small-group teaching (usually about basic sciences or public health) and finally, clinical practice. Assessment, mainly using multiple choice questions, was hard but we passed.

Bedside and ambulatory care teaching were great, and we all have unforgettable memories of our mentors and first patients. Case-based discussions were the replacement of most of written test, and patients were a passive part of them [1].

We guess that, our experience as health educators when we started using the same principles, methodologies and assessment is the same as yours. In preparing ourselves to be better teachers, we discovered a fascinating world about education in health sciences. A mastery and an international experience were key to becoming an enthusiastic and bold innovator, when changes in our traditional curriculum arrived at our faculty.

This chapter is about our experience implementing Standardized Patients (SPs) at our Clinical Skills Center.

SPs have been present at the Faculty of Medicine of the University of Chile since 2011, when the Clinical Skills Center was inaugurated (in Spanish is Centro de Habilidades Clínicas, so we will use the CHC initials from now on). Previously, there was experience with SPs in evaluations of clinical skills at the School of Medicine, mainly in the Objective Standardized Clinical Examination (OSCEs) that was part of the evaluations of our students since 2003 [1]. The traditional OSCEs were transferred to the CHC, in which we improved infrastructure and incorporated audio-video recording. Additionally, the Nursing school practices, mainly procedures with mechanical simulation were transferred to the CHC. Finally, incorporating ASPE's Standards of Best Practice (SOBP) and applying their advantages became a major objective of CHC [2].

In 2013 there was a major change in the curriculum by the faculty and became a competence-based format. This renewal of the curriculum implied renovation of learning and assessment methodologies; learner-centered. The implementation of the CHC made it possible to concentrate in a single space the development of activities that were precisely linked to subjects led by teachers motivated to innovate and develop teaching methodologies, learning and assessment of clinical

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skills. In addition, the Faculty decided to add the activities at the Clinical Skills Center to its other seven schools: nursing, speech & langauage therapy, nutrition and dietetics, obstetrics, physical therapy, medical technology and occupational therapy, a differentiating initiative from what was usually considered in the Centers of Clinical Skills and Clinical Simulation Centers throughout the world, and generally circumscribed to one or two schools [3].

SP Program Management

The CHC is at the core of SPs development, where its program management has grown. An academic and administrative team supports the SPs Unit. We can also say that infrastructure original design and progressive remodeling has been driven and determined by SPs work.

Centralization: Clinical Skills Center

The Center began the Standardized Patient Program in 2011 in response to a need for the health students according to the curriculum renewal. The Clinical Skills Center is located at one of the five campus of the Faculty of Medicine, located on Santiago, Chile.

The Center provides a facility for the training and assessment of students for eight health care disciplines, as mentioned previously. The CHC assists in teaching and evaluating skills to develop rapport with a patient, to perform an organized physical examination, and the competency to gather an accurate and concise history, always with criteria of quality and patient safety.

The Center also works in collaboration with Surgery Training Center, as part of the same Faculty.

Academic Committee

Concentrated management and availability of SP was part of the first political decisions of authorities for its development. The University leadership led the formation of a group of academics, motivated in clinical teaching, with representatives of all the schools of the Faculty. Simultaneously, it started the construction of a physical space destined to the realization of the clinical practices, simulating the real clinical scenarios in which they were traditionally developed (ambulatory care boxes, emergency and hospitalization room). Unidirectional mirrors and audiovisual resources were provided for direct and remote observation of the scenarios, as well as for recordings.

A practical approach, after a few years, supported the original decision about centralization. We were 13 health educators, six representatives from Medicine School and one from each of the other schools (considering the proportional distribution of students in our schools). The main purpose of the academic team was to disseminate and develop within their respective schools the incorporation of the SP to the curriculum. During these years, this team constituted the CHC academic committee.

The requirements of the activities to be implemented were to be determined based on the curricular needs and intentionally directed considering the level of the students who will carry them out. This allowed circumscribing SPs to cost-effective activities, without removing well-destined spaces to other methodologies. As such, in our environment conflicts often occurred. An easy way to solve doubts about the need to use Standardized Patients for a formative or evaluative activity is to ask yourself if could you achieve the same with another methodology. Educators must know how to deal with this.

While educators work at their respective schools, CHC has its own team, that constitutes one of its main values.

It can be celebrated that in the first year of operation we almost tripled the number of activities and the number of students who had practice with Standardized Patients, compared to projections prior to its inauguration. However, it is worth mentioning the difficulties in the implementation of the SP methodology, which may be useful for those who face this situation.

In the first place, it is fundamental to be clear about the usefulness of the SPs in the training and evaluation of clinical skills, and to accurately project their potentialities in curricular needs.

The experience of teachers in consolidated centers in the development of SPs is the best way to appreciate not only the possibility of realistically recreating the most varied clinical scenarios, but also to know and be convinced of the important role that SPs can play. They can participate in the feedback to the student and the teacher, as well as the performance of observed behavior evaluations, according to the ASPE best standards in practice [4].

There was some resistance by academics to assign part of their teaching functions which required a process of convincing, through joint development of many scenarios, with a critical spirit and will of continuous work. Initially it may seem curious, but it was the students who were the most enthusiastic about the implementation of the Standardized Patient in their usual practices, in comparison to the more traditional academic.

Our academic team learned that when you have Standardized Patients in operation and a potential to increase the number of activities, it is important to develop a flow according to curricular needs and teaching creativity. That is why quickly, more requests for SP-based activities were generated: for students attending patients in ambulatory, hospital, emergency or domi-

cile settings; for the replacement of the classic evaluations based on the analysis of clinical cases in front of a teaching commission; for clinical practices that incorporate previously unattainable situations for the student, such as delivering bad news, facing ethical conflicts or participating in joint activities with students of other levels or schools.

Case development was the main issue for SPEs, according to curriculum (learning objectives) and considering competences to assess. A realistic performance was progressively getting better, as experience, SPs skills and infrastructure aligned with planning. Case components were prepared previously, using protocols and practical guidelines, adapted from international references. "Blueprint" started to be the common language between us and administrative and technical staff.

Administrative and Technical Staff

When the center was planned, an official staff was considered from the beginning, which included management and administration roles; knowing the large potential number of students and activities to coordinate, the costs involved and the need to incorporate management concepts in the appropriate use of resources. Likewise, it was essential to recruit logistic and audiovisual technicians, for the adequate assembly and quality development of scenarios, as well as the maintenance of expensive equipment that required specific expertise in their care [1].

There is now a full-time administrative and services staff, prepared to carry out activities based on simulation and the development of the center. People who applied for a work position at CHC have to fulfil a profile previously defined and known, according to the expected roles. An interview and role playing are the final step to select the candidates, and, in the heart of everything, the Standardized Patients.

Standardized Patients Unit

A few months after CHC started to work, it was decided to create a unit in charge of the original group of SPs. The main objectives were:

– To create and manage a SPs base data: recruiting was hard at the beginning, most of our candidates were enthusiastic people with no background in acting. Payment was modest and delayed. Incorporation of actors and actresses was good enough to decide having an actress in charge of SPs Unit. This facilitated incorporation of people with theatrical training.
– To coordinate SPs availability and requirement: a good coordination allows you to make activities when require-

ment is growing, and SPs availability seems not to be enough.
– To monitor SPs compliance of their roles: fulfillment of scheduling was an important issue that needed a lot of teamwork. Supervision of role portrayal and case development was easily achieved, having a clear case development and proper SPs. Information models for SPs were applied (case situation, character, symptoms and signs) and adapted to different requirements. Feedback was directly trained, by SP educators and a psychologist. Assessment of students by SPs was the last role introduced. Several international instruments were adapted and rehearsed. The Master Interview Rating Scale (for communication skills), among other scales, were translated into Spanish and used to start creating our checklist, rubrics and rating scales. Comparison between SPEs, SPs and academic using evaluation tools were performed before using them regularly.

Since 2016, important changes started to impact SPs work. Having answered to the growing importance of the SPs work, the increased requests, not only quantitative but also qualitative, and institutional commitment, allowed us to enhance material conditions to SPs work (e.g., contractual terms, provision of improved physical spaces). A new recruiting process was developed, and SPs profile was updated. Since 2017, SPs Unit includes a psychologist. This whole progress had an immediate impact on incorporating improvements on SP training, case development and program management. This change has driven SPs best practices and allows us to assume the challenge to develop a Strategic Development Project.

Infrastructure

The new and modern physical space of recently inaugurated CHC in 2011 caused an immediate impact on the quality of the activities and the enthusiasm of teachers. It consists of 6 consultation boxes and 7 rooms, all grouped with audio-video systems for supervision, transmission and recording of what happens inside. In addition, there are 8 unidirectional mirrors for direct observation in all the boxes and some rooms, a communication system with headphones and speakers, and an audiovisual control room that integrates in the same control the technical possibilities of the equipment and the needs determined for each activity [3]. See Fig. 15.1 is the CHC Floor Plan.

Initially, there was an important space for office equipment, considering the design of scenarios, guidelines for development and evaluation, scripts, and the organization of crews were all printed. Progressively, thanks to the availability of digital and web-based resources and an active attitude
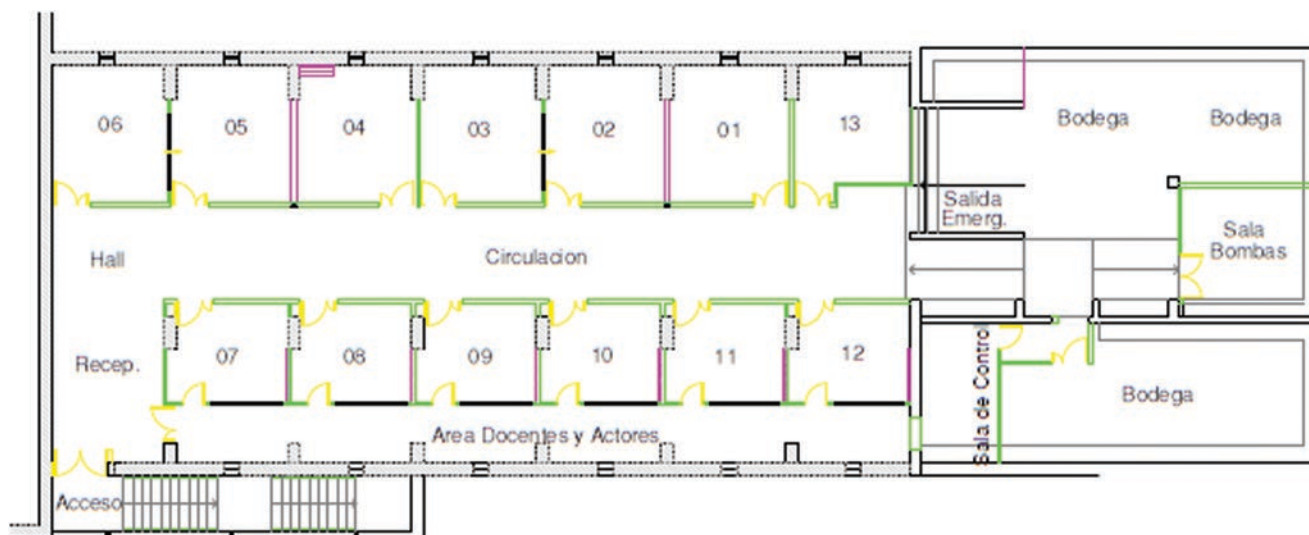
Fig. 15.1 CHC floor plan

for automating processes, we no longer use vast amounts of paper for evaluations and registers, every time a massive activity is done. Now we have digital recording and videos of evaluation activities carried out.

Audio-video recording is useful to supervise activities and it seems to have a hidden effect on participants of scenarios, driving them to do their best. The audio-video recordings are useful to evaluate SPs and student performance. High-stakes assessments are an important support for quality processes. Somehow, it also helps to support a safe work environment: the fact that you can check what occurred during an activity inhibits improper behavior. You must consider protocols that assure confidentiality of all participants in every audio-video register, delineating the use specifically for academic purposes. Using audio-video recording to check some students' claims has proved useful when clarifying situations.

Storage is always insufficient in space and complex in organization: it must include areas, for example for furniture typical of clinical scenarios (consultation box, hospital room, emergency box, sample room, resuscitation room, etc.), also an area for clinical instruments and equipment (probes, venous lines, tracheal tubes) and simulation tools, such as phantoms and simulators of low and mid fidelity.

Recruiting of SPs

First Experiences

The recruitment of SPs prior to the development of the CHC, was mainly for the implementation of OSCEs in subjects of the School of Medicine. Usually they were people without

training as an actor, but with the will and capacity to represent themselves, plus a reason for consultation or a brief clinical history. Students of higher levels, teachers of other subjects and administrative officials of the University itself stood out in this. In retrospect, it may seem a distant beginning of what should be, but, nevertheless, there were no problems in the representation of cases and the concern to make more professional the use of SP was due, in large part, to the acceptance achieved through learning and evaluation experiences.

Role portrayal at the beginning of its duties, the CHC began working with people who, with years of experience had participated in OSCEs. The decision to carry out learning-oriented practices, as well as the incorporation of feedback and evaluation of the student among the SP roles, forced the SPs to be trained. The greater complexity of case representations was addressed first. The participation of actors and actresses, as well as SPs as tutors for the elaboration of characters, cases and trials, was a powerful engine that quickly led to the formation of a group of SPs, capable of representing cases in such a realistic way that surprised teachers and helped achieve a realistic student experience [1].

SPs have expanded their scope of roles from common patients to complex cases, including severe neurological disorders; or from easy-going to uptight people. Relatives or family members of patients were easily introduced and accepted [2]. New roles were demanded as consequences of experience and formative requests. Since 2014, an important step was to include new roles: healthcare technicians or professionals for interdisciplinary scenarios. Success was good enough to face a challenging request: as part of health institutional accreditation, government authority needed to assess national creditors, apart from theoretical testing. SPs became health professionals and scenarios were arranged as hospital administrative

rooms, were accreditation interviews had to be made and registered on video. This experience was presented at an ASPE oral presentation in 2016.

It is important to point out that a deaf person was recently incorporated into an activity with medical students in a secondary role, so the possibilities of having patients with physical, cognitive or sensory disabilities are open. We are also willing to incorporate immigrants as SPs.

Most of our SPs have acting training and this is an advantage to develop difficult cases or complex scenarios in several areas:

– Communication: breaking bad news, truth disclosure, interpersonal relations
– Cases: complex clinical history and physical abnormalities, especially emergency situations or neurological diseases
– Team work: roles as confederates, students or health professionals.

A few SPs are non-acting trained people ("real patients"), working for us for more than five years. They have experience enough to help us in the development of new activities to improve our scenarios.

Feedback The CHC teaching team and those in charge of the different activities participate in preparing SPs in feedback. Initially, a model of direct, verbal, brief delivery, from the SP to the student, was oriented to the positive aspects and to improve in the clinical interview. The SPs attended training workshops and managed to fully add feedback to their performance. Later, the evaluation of the student's behaviors, observed in the scenario, is incorporated among the SPs' roles. For this, each scenario consists of a checklist that is prepared by the teachers, rehearsed with the SP and applied immediately after each SP-student encounter.

The feedback model has been well received by academics and students. The evaluation provided by the SPs was met with some reluctance in the beginning, however the teachers came to recognize its importance. It should be recognized that, while role portrayal is important and basic in all SPs, not everyone has an inclination or ability to give feedback or evaluation. With this, the CHC SP group became heterogeneous, which was a problem when the requirement for activities with feedback and evaluation by SPs was increasingly demanded.

Moving a Step Forward

In late 2016, the Faculty of Medicine decided to improve the SP contractual conditions, given the wide use that was made of clinical practices in CHC. The CHC teaching team decides

to select people to have 30 SP seats, according to a position profile that includes representation, feedback and evaluation skills. The applicants, in addition to the usual requirements of admission into the public administration, had to perform a simulation of the SP role, being evaluated by the CHC team. This time, the "simulated students" were part of the realism of the evaluation of candidates. The selected people make up our current SP team. Most have training as an actor / actress, as well as positive behavior in the areas of health and education. They are evaluated and are encouraged to participate in learning workshops and development of their skills as teaching agents. SP performance evaluations are carried out by the Unit Manager of Standardized Patients and by teachers of the CHC team. Among the aspects that are considered most important in the evaluation of the SP are:

– Role portrayal: according to the script, with appropriate improvisations if necessary
– Feedback: it is given to the student according to teaching guidelines, in an environment and way that considers the safety and learning of the student
– Evaluation: through comparison guidelines, based on student behaviors, during the meeting with the SP.

The SP group has remained stable and the increase in demand for "SP" hours will probably motivate a new recruitment process. The demands also grow in quality, so the profile of the position is under review and the training workshops must be carried out to advance the growing requirements.

Among the new requirements are the increase of tools in feedback and in evaluation regarding specific aspects of clinical interview for different schools, as well as evolving aspects of clinical history, physical examination, feedback and assessment.

Curricular Incorporation of the Use of Simulated Patients

The Clinical Skills Center is the materialization of our Schools yearning to advance in the teaching-learning processes and evaluation of competences in clinical practice. According to the curricular innovation process, an emphasis on competences was the main goal. Competence-based curriculum focuses mainly on transversal domains, such as communication, reasoning and teamwork. Transversal as well as technical competencies support the relevance of the SP program implementation.

Scenarios with SP are useful for teaching, learning and assessment of clinical interview, history, physical examination and counseling.

Without ignoring the contribution of phantoms and high-tech simulation models, we must highlight the participation

of people -not necessarily actors or actresses- who fulfill patient roles, simulating people with the pathologies or conditions that are required to present to students, according to the guidelines provided by academics, as part of curricular requirement.

This makes it possible to gather data on the illness and personality of a real patient, in a standardized and reproducible way, as often as necessary, in order to ensure similar training opportunities in accordance with the curricular requirements.

The SPs are also useful to evaluate, by means of guidelines, the desirable competencies that the student should have, which enriches the analysis made by the teacher who reviews that clinical activity. This does not replace the actual practice, but it does aspire to prepare for it, allowing those who learn, to practice in a safe and Standardized environment, acquiring skills that make it possible to better face real situations.

The Standardized Patients started working in our faculty informally about 20 years ago. Initially, they were people with good will or inclinations for the theatrical representation plus an availability of time and patience to expose themselves repeatedly as patients before medical students. Some real patients, friends, former faculty officials, professors and cleaning or secretarial staff, were included in OSCEs of Medicine and Pediatrics, in simulated patient roles for activities for hundreds of students with numerous stations. Having recognized the professionalization of activities of Standardized Patients, we have become aware of the need to have a human group capable of representing the roles that are required, the times that are needed, preserving the standardization.

In addition, there are complex scenarios, for example, a patient with an emotional burden, or the need to face a difficult situation, such as the delivery of bad news or the communication of a medical error, which demand acting resources that require specific training. Furthermore, international experience shows that Standardized Patients are effective agents in teaching, participating in the training and evaluation of students, either through post-stage feedback, with the patient's perspective and/or registering their observations in a checklist [5].

In relation to the comparison between the practice with SPs and that performed with real patients under supervision in healthcare centers, the latter can be a sensitive issue in an environment in which the concept of safety and quality of life has been strongly installed. It is important to consider that the universities have a limited access to the clinical practice of their students, in this context two advantages of simulated practice arise:

– The practice with SPs allows to learn from the errors that are bound to be part of the process

– The student can face the practice with real patients in a better way after a well-developed experience in simulation.

Training Faculty to Work with SPs

An Evolving Story

The training of academics was crucial in the development of SP. The authorities of the Faculty considered preparing a team of clinical teachers, with experience in the traditional methodologies of training and evaluation of competences, and a willingness to innovate. During 2011, the academic team was trained in clinical simulation focusing on simulated patient methodology at the University of Illinois and the University of Connecticut. As part of that team, we remember that it was not easy to make our colleagues understand simulation as a recognized methodology to create experiential learning and assessment scenarios. It was useful to remark that SPs were our choice, according to our curricular innovation process which focus was on clinical competencies related to interaction between patients and a health team. An important issue that made sense for most of our academical staff was that SPs allow us to have safe clinical practice, for patients and students, and make the error a part of the learning process. As with our students, to convince academics was easier using practice. At the inauguration of CHC, in November 2011, the practical activities began quickly, transferring those previously carried out, mainly OSCEs.

The implementation of the CHC generated two effects that became noticeable after a few months, one positive and the other negative. We highlight, at first, the favorable acceptance of students and the increase in requests from teachers to execute more activities in CHC. The negative was the insufficient availability of SP, which, for various reasons, limited for at least 1 year the development of the planned activities. Also, the academic committee was understaffed, so it was not able to meet the growing demand. When you start to include simulation on your curricula, you need to know this will constantly demand more work. CHC faced a self-imposed challenge to incorporate training and evaluation methodologies, especially SP, for the entire Faculty, starting in undergraduate careers. This challenge has explicit goals: emphasis on the development of skills, especially communication and teamwork.

Sharing Experience

Since 2013 we carry out an international annual meeting, whose main purpose is the update in the field of the clinical

skills. Each year brings together professionals, professors and academics in general, with topics like deliberate practice, virtual patients, telemedicine, debriefing, experiences of other centers, bioethics and communication issues, among other topics.

These seminars have been mainly oriented to professors responsible for the training of students in health careers, in the clinical area, in which the development of competences, as well as the safe and technically correct execution of clinical procedures are relevant.

It is also intended to provide guidance on the current situation of safety and quality requirements in health care and the ways in which the use of clinical simulation is useful in ongoing training and evaluation of health work team.

In the other hand, since 2015, we carry out a program of continuous education to the teachers of our University and other universities. This program includes concepts of clinical simulation, learning theories that support this technique, designing and evaluating scenarios using SPs, feedback and remediation, and the implementation of the clinical cases in different types of scenarios.

In the last few years we have increased our collaborative work with professionals from diverse areas such as computer engineers, and other professionals involved in audiovisual and digital development. These people have become fundamental to innovate on the activities of the center.

Using the ASPE Standards of Best Practices

The ASPE SOBP provide clear and practical guidelines for educators who work with SPs. These guidelines are precise and yet flexible enough to address the diversity of varying contexts of SP practice [4], as in our case.

Safe Working Conditions

Safe working conditions in activities design has changed enormously. We started using OSCEs as the main SPs activity, transferred from traditional students' examination, over the previous years, with multi-encounters, brief scenarios and many students, demanding a great number of rotations. All OSCEs were for summative assessments. We promoted formative activities and evolved to long cases, unique-encounters, adding feedback and debriefing. Students were more receptive than faculties, and SPs accepted new challenges and recognized better work conditions. Transition was during CHC's first year functioning, and schools that did not use OSCEs, preferred to start with formative activities, few cases and incorporating immediate feedback.

Recruitment considered progressively more information to SPs appliers, in part to ensure that they are appropriate for the roles we need, according to profiles elaborated considering current academic requirements. We have profiles of our SPs team, including general information (age, gender), capacity levels and preferences (portrayal roles, feedback, evaluation skills) and medical conditions (allergies, diseases, surgical and gynecological background) to consider before assign one specific role. We have defined times and number of activities reasonable to be accomplished properly and protecting SPs work. Adverse events are considered, so there are formal mechanisms to report any problem involving SPs, students, faculties and program staff. Fortunately, we have only had minor problems. SPs' commitment is key to a safe work environment, so what we work with them spreads out to all activities and all stakeholders. We are continuously organizing and developing formal training to SPs, and emerging issues are always defying implementation of standards of best practices. We respect SPs decisions about their self-identified boundaries.

Confidentiality conditions are considered and usually discussed. SPs confidentially about scenarios, evaluation tool and student's performance are included as part of their role and contractual conditions. Before an activity, students are informed about confidentiality of scenario, remarking a safe realistic environment, were "errors are allowed as part of learning". A written "Consent form and Fiction contract" is public and considered for all students before participating in our activities. Video recording is used for teaching and learning purposes, and specific participating consent is required for other uses.

Case Development

SPs educators and faculties oversee ensuring that cases are based on authentic problems and align with measurable learning objectives. Case components (Table 15.1) are worked at CHC, for program staff and SPs. School academics had to be trained on patient simulation to collaborate in case design, according to necessities. Experts are considered at complex issues and some of them attended our formal

Table 15.1 Case components considered at planning and development of an activity at CHC

Goals and objectives
Simulation design
Schedule and timing
Information for SP's
Training resources
Case-specific feedback guidelines.
Briefing instructions, time frames, instructions to learners.
Evaluation instruments and performance measures
Training protocols for raters (SP or other).
Data for managing the documents and recruiting SPs

instances of diffusion and formation on clinical skills education, focus on SPs and simulation. At least, they all must participate in some formal activities and know about scenarios process and protocol. An important issue is that a novel academic comprehends that SPs functions go beyond role portrayal. Time scheduling for activities is a main issue too and needs work to be implemented, since it is key to properly plan, run and evaluate the whole process.

Available resources are offered, informing about advantages and indications of use. A new resource is incorporated when requirements and analysis advantages is performed. Economic considerations and cost-benefit analysis is a must. Before using, it is tested and a protocol is made (sometimes an "user manual").

SP Training and Program Management

The first years of CHC work were oriented to establishing a SP program that includes:

– recruiting SPs, according to our requirements and a determinate profile
– a training plan; including role portrayal (script and rehearsal and personal/group training), feedback to student and completion of assessment instruments.

Activities development and incorporation of long cases and formative scenarios helped to achieve objectives. SPs team, at 2013, started to participate at group sessions about consistency and accuracy of role portrayal, fundamental principles of feedback based on observable, modifiable behaviors of students. Since 2015, SPs were able to recognize physical exam maneuvers and complete assessment instruments about clinical interview and history. Contractual conditions and the SPs unit's organization allowed to enhance feedback and evaluation, using on-line format on portable devices. Inter-rater reliability has been measured and values over 85% have been regularly obtained.

Professional Development

We have developed and promoted SP-based simulation, widely into our Faculty, beyond medical and nursing education, and incorporating other faculties (engineering) and government institutions. This has allowed to develop new contexts for SP methodology. Special successful experiences have been the incorporation of the schools of speech and language therapy, physical therapy and nutrition. Working with computer engineering seems auspicious.

As a team, SPs educators maintain membership in professional simulation societies at local (SOCHISIM), Latin-

Table 15.2 CHC Organization chart (Centro de Habilidades Clínicas, University of Chile)

Medical director and academic committee
SP management & development
Business processes manager
Operational manager
Operational support
Audio-visual director
Audio-visual controller
Housekeeping team
Secretary & public affairs

American (FLASIC) and world levels (ASPE). As part of our projection, we will apply for SSH accreditation.

Our team has participated in educational opportunities, visiting national and Latin-American centers, attending professional conferences and courses. We have developed annual conferences, a blended-learning program on simulation and we are about to begin with internships at CHC.

Promotion of SP methodology includes local and national universities. We have been visited by international authorities (OPS members and deans of Health faculties), as part of our first contacts related to the SPs program (Tables 15.2 and 15.3).

Perspectives

This 7 years' experience has shown us important issues, most of them pleasant, but some ideas often are hard to put into practice or do not work as you expected. The evolution of this 7 years is shown in Table 15.3. We hope you and your team have experienced your own challenges, triumphs and defeats, or maybe, you are interested in getting started this adventure. Here we have our perspectives:

Essential Elements to Start and Survive

What we have done would not be possible without **institutional commitment and support**. There is political decisions and an important resources investment that are not only at the beginning, forming educators and building an appropriate infrastructure, but also during its development. At first, it seems expensive, and probably it is, but, after a few years there is some evidence that compares costs associated to traditional clinical practice against SP centered practice, that seems to point on the opposite direction. And we are not considering some important but non-valuable issues related to traditional practice. Some research should be done on this because faculty authorities must consider economic issues related to implement SP.

A **strong team of SP and faculties** needs time to be properly prepared. Experience of other similar institutions or models that could be appropriate for local needs and reality

Table 15.3 Evolution of the CHC from 2012–2018

	2011 and before	2012	2018
Characteristics of the SP's	Volunteer people, real patients, friends or colleagues	Volunteer people, real patients, and acting trained people	Most of them are professional actors, or have acting training
SP roles	Portrayal	Portrayal Attend to basic capacitation	Portrayal, but also feedback delivery, completion of assessment instruments, and reflection on the training process They receive continuous training.
Learners participating	Only medicine school	Pre-graduate schools: Nursing, speech and language therapy, physical therapy, nutrition, medicine, obstetrics, occupational therapy and medical technology.	Pre-graduate and continuous formation courses
Type of activities	Summative evaluations (OSCEs)	OSCEs and procedural activities for nursing schools. Formative SPs activities and OSCEs at non-medicine school	OSCEs, formative and summative activities for undergraduate schools, long case scenarios with immediate feedback
Number of students (one student in one activity)	Not registered	2400 approximately	14,000 approximately

are useful. We are thankful for the experience at American Clinical Skills Centers, at the University of Illinois and the University of Connecticut and mainly we highlight the support of Carol Pfeiffer PhD. and Dr. Lynn Kosowicz from UConn Clinical Skill Center where we learnt the core and spirit of the SP methodology and the generous way they shared their experience was helpful to share ours with health educators at Chile and neighboring countries.

Projecting to the Future

Institutional Development Project 2018–2022 is a strategic planning instrument used by the University of Chile and its various faculties, where the major definitions are found that allow the organization to respond to the challenges imposed by a changing environment. In a participative process, define Mission, Vision, Values and Strategic Objectives, from which the institution will project its work during the coming years [6]. Our faculty elaborated its instrument and encourage its units to work on local **Strategic Development Project** aligned to the institutional one. This has been an important opportunity to check what we have done, and project where and how to advance next years. CHC Strategic Development Project have been determined by the consensus opinion of several expert educators, faculty authorities, administrative team and current SP group. Expert educators considered were Latin-American academics and our international mentors. Methodology included online surveys, focus-group and work meetings, during 2018. We must thank enthusiastic contribution that show how this work is growing and been recognized.

SPs actively participated, remarking issues that mostly agree with important aspects incorporated to the final document. These points indicate us that the main ideas of our work are internalized into our group, and motivate reflection:

– Safe training and learning environments, focus on work conditions (having their own space to rehearse and a dressing room, more frequent breaks between rotations) and respect for SPs work.
– Continuous training in role portrayal, feedback and use of assessment instrument.
– Basic theoretical knowledge about health education, patient simulation and health system functioning.

The Association of Standardized Patient Educators Standards of Best Practice (ASPE SOBP) and definitions of the Society for Simulation in Healthcare (SSH) have been included as guide material at our SP unit, as a tool that help us to develop our Strategic Development Project. Our Mission, Vision, Values and Strategic Guidelines are shown at Table 15.4.

Network

A surprising and gratifying effect of working with SPs is the connection that it has promoted with our schools and post-graduates. We hope it helps to develop interprofessional work with undergraduate students, and that faculties are more prepared now to create interprofessional scenarios and case development, than years ago.

Likewise, it has eased new relationships with other faculties. We remark our work with computer engineers, that has helped us to enhance our audiovisual resources, to implement an electronic clinical register and to use on-

Table 15.4 Centro de Habilidades Clínicas, University of Chile, Strategic Plan 2018–2022

Mission	Vision	Values	Strategic guidelines
Promoting, developing and researching innovative methodologies, with emphasis on simulation, to the benefit of the teaching-learning process of clinical and surgical skills in order to contribute to the formation of the health team, according to the purpose of the faculty of medicine.	To become a national and Latin American reference in development and research of innovative educational experiences for clinical health training.	Equity Pluralism Critical thinking Social commitment Excellence Tolerance Humanism	Undergraduate, postgraduate and post-graduate teaching. Research and innovation. Extension and connection with the environment. Internal management. Well-being, quality of life and sense of community.

web forms. Managing big amounts of data, as occurs after multi scenarios activities, is easier using digital resources. Advantages are for both sides: CHC delivers the opportunities to work safely on a clinical environment to computer technicians and professionals.

As a final synthesis, we deeply believe that the incorporation of simulated patients has been of great benefit for the training of our students of health sciences. We still have a long way to go, especially in the adoption of the best practices and the beginning of applied research: the validation

of instruments into local contexts, the pursuit of quality standards in all activities, and collaborative work within the Latin American academic community. In striving for improvement we will keep on contributing to enrich this methodology in a creative, innovative and contextualized way.

Note from Editors

We are very grateful for the contribution and perspective of our international colleagues. We also appreciate their willingness to write this chapter in English.

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Misconceptions and the Evidence

Cathy M. Smith and Gayle Gliva-McConvey

Vignette

You have a message waiting for you on your phone. One of the faculty members you work with has called to request an SP for a class on giving bad news. The SP is needed in 2 hours. All you can imagine is that this person must think that you store your SPs in a dark room somewhere, already pre-trained for this role, waiting until they're needed. You smile to yourself as you think of it as the "put money into a vending machine and out pops a ready-to-consume SP" misconception.

Introduction

A misconception is "a belief or an idea that is not based on correct information" [1]. Over the past 50 years, many common misconceptions about simulated/standardized patient (SP) methodology have emerged. While some of these ideas may appear to be humorous or benign, others can have an undesirable impact on a simulation session. We have collected these reports from an international community of SP educators (SPEs) in interviews for this book and through personal correspondence, as well as drawing on our own experiences. These misperceptions relate to many topics including authenticity, acting, general considerations for working with SPs, training, assessment, the Association of Standardized Patient Educators (ASPE) Standards of Best Practice (SOBP) [2] and the role of SPEs. We draw on evidence and practice to provide strategies for SPEs to address these misconceptions with stakeholders and promote the implementation of SP methodology in an informed, safe and effective manner.

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SPs and Authenticity

Misconception: *SPs aren't real.*

The Evidence: Barrows [3] noted that "students rapidly forget they are dealing with an 'artificial' patient and relate to the simulator [SP] as a real patient". [3 p12] In addition, studies have shown that experienced physicians are unable to differentiate real patients from well-trained SPs when sent unannounced into their offices. Rethans et al. [4] and Siminoff et al. [5] both reported a zero detection rate in unannounced SP (USP) visits to physician offices. Siminoff et al. sent post-visit evaluations to the physicians to assess the believability of the USP role portrayals. On a scale of 1–7, with 7 indicating the most convincing portrayal, ratings ranged from 6.7 to 6.9 for believability, convincingness of portrayal and frequency of maintaining role. The conclusion was that carefully trained "USPs portrayed their roles authentically within the context of the patient-physician encounter". [5 p8].

Misconception: *When working with SPs, learners sometimes state that they would act differently if the SP were a real patient.*

The Evidence: This type of response can indicate a lack of buy-in and engagement from a learner and can be the result of anxiety or uncertainty brought about by such factors as not understanding how to work with SPs, not being briefed properly before a simulation session or having had unhelpful previous encounters with SPs. Rudolph et al. [6] address how to create a safe container for a simulation to occur and increase the potential of learner buy-in and engagement by briefing learners before the simulation event. One of the techniques they endorse in the briefing is establishing a fiction contract, as articulated by Dieckmann et al. [7] When working with

SPs, this contract would translate into acknowledging to the learner that yes, the SP is not a real patient and the encounter with the SP is in a constructed, fictional environment. Learners are asked to commit to this fiction, to suspend their disbelief and engage with the SP 'as if' the situation were real, and 'as if' the SP were the actual person they are representing. In turn, the facilitator is asked to commit to making the situation as real as possible by making sure that learners have all the resources that they need for an encounter. SPEs must work with faculty to create this fiction contract with their learners. For example, SPEs need to make sure that the SPs recruited fit the demographic profile of the people they are representing and fully train the SPs to respond authentically to many different kinds of learner encounters [8].

Misconception: *You can just send any SP over to portray our case. It doesn't matter how old they are or what gender they are.*

The Evidence: SPs should be reflective of the people they are representing [9]. If the case centers on a 25-year-old pregnant woman and a 70-year-old man arrives to portray the role, the authenticity and integrity of the learning situation are completely undermined. It's difficult for anyone to buy-in to this situation, let alone expect learners to perceive that a 70-year-old man could represent a 25-year-old pregnant woman. This example illustrates a fiction contract broken by both the faculty member and the SPE long before the SP encounters the learner.

Misconception: *There is a difference in learner/physician performances with SPs verses real patients.*

The Evidence: Early studies showed that the clinical performances of medical residents were similar between encounters with real patients or with SPs who were trained from a real patient case [10].

Misconception: *SPs are standardized.*

The Evidence: SPs are human beings and human beings cannot be standardized. However, as the ASPE SOBP [2] note, SP behaviors can be standardized along a spectrum depending on the purpose of what the SP is doing. At one end of the spectrum, in formative, educational settings, SPs have a great deal of flexibility in how they interact with learners while on the other end of the spectrum, in summative contexts, SP behaviors are honed to be more repeatable (consistent and accurate) in response to behaviors by learners. The onus is on the SPE to advocate for case development and training that supports SPs to perform in an authentic manner no matter the degree of standardization [11].

Misconception: *SPs react the same way to every learner.*

The Evidence: The key word in this misconception is 'same'. Effectively trained SPs will react to each learner's unique behavior in a flexible and authentic manner within the parameters of the degree of required standardization for the role they have been trained to portray [8, 12–15].

Misconception: *SPs aren't as high fidelity as mannequins.*

The Evidence: The Society for Simulation's Healthcare Simulation Dictionary [16] defines fidelity as "the degree to which the simulation replicates the real event ... the ability of the simulation to reproduce the reactions, interactions and responses of the real-world counterpart". [16 p12] We must therefore argue the SP, who is portraying the human being, is the closest replication of a real patient in the real-world setting and therefore the highest fidelity simulation modality. Mannequins can be described as high technology. One modality is not better than another. The important thing is to match the right simulation modality with the right learning objectives.

Misconception: *We must use a mannequin because an SP cannot produce the signs and symptoms needed for this case.*

The Evidence: Barrows [17] noted that there are 49 signs and symptoms that an SP can portray. Increasingly, hybrid simulation is allowing for SPs, in combination with various pieces of wearable or adjunct technology, to be involved in cases that combine competencies related to the integration of communication and psychomotor skills, clinical decision-making and professionalism [18].

SPs and Actors

Misconception: *You must be an actor to be an SP.*

The Evidence: SPs are drawn from a diverse group of individuals including laypersons, learners, faculty, retired alumni and actors. However, there is no evidence to suggest that actors make better SPs than those who have no previous performance training or vice versa [14]. Actors may have the training, ability and experience to effectively portray strong emotions and learn detailed, complex information, and therefore may require less training in these aspects of SP role portrayal [19]. However, many of these skills also can be trained and developed with non- actors.

Misconception: *Human role players in simulation should be called actors rather than SPs.*

The Evidence: As long as there have been SPs, this use of terminology has been debated. Many SPs have an acting

background and make excellent SPs. As discussed in the ASPE SOBP [2] actors and SPs are both performing, but have different functions or scopes of practice. Actors fulfill the objectives of the playwright and director and, for the most part, provide entertainment. SPs are part of the educational team and are in service to the learning objectives of the simulation case and the learners. And, acting practices can greatly inform the work of SPs [20–27]. Addressing this use of terminology provides an opportunity for the SPE to point out the unique role of SPs and that the nature of the SP's performance is an application of role play in a learning or assessment setting.

Misconception: *SPs who have an acting background are not as accurate as SPs without an acting background at filling in assessment instruments.*

The Evidence: In a study of 1,972 encounters of SPs portraying a role and then filling in an assessment instrument for a high stakes licensing OSCE, Langenau et al. [28] reported there was no statistical differences in SP recording accuracy on history and physical examination checklists related to acting experience. The study concluded that "SPs with and without performing arts experience can be recruited for high-stakes SP-based clinical skills examinations without sacrificing examination integrity or scoring accuracy". [28 p150]

Misconception: *I can save money if I hire actors because I don't need to train them.*

The Evidence: If actors are recruited to be SPs, they need be orientated to SP work and then trained for specific contexts, as is the case with all SPs. Actors may need less training for roles that are highly affective or complicated, but not always [2].

Misconception: *Being an SP is just like any other acting job.*

The Evidence: The recruitment process offers an opportunity for SPEs to clarify the differences between SP and actor performance. SPEs should explain the multi-faceted components of SP work that may include providing feedback and/or assessing learners, in addition to role portrayal [2].

General Considerations for Working with SPs

Misconception: *SPs only portray patients.*

The Evidence: The scope of contemporary SP practice is continually evolving in health care and beyond. While SPs

initially portrayed patients, they now portray an increasingly diverse array of individuals, such as family members, health care and other providers/professionals, (e.g. embedded participants). SP methodology is now employed in fields as diverse as law, architecture, chaplaincy, law enforcement, business, the military, veterinary medicine and human resources. To reflect this shift and to be inclusive of all professionals and disciplines that work with human role players, the term SP is increasingly seen in the literature to mean simulated participant [29].

Misconception: *SPs are 'tools' that are used.*

The Evidence: SPs are human beings, and part of the educational team. McNaughton and Anderson [30] remind us of the importance of the language we use to describe them, our relationship to them, and that their role in the process matters. Nestel et al. [31] advocate for "reconsidering this phrase [using SPs] to the more positive 'working with SPs.' Rather than regarding SPs as tools or objects of use, this small but significant statement emphasizes the crucial contributions that simulated participants make in supporting learning". [31 p2]

Misconception: *SPs cost too much.*

The Evidence: The cost of working with SPs should not be the first consideration as to whether to employ SP methodology. The first consideration should be to determine the learning objectives and then to match the appropriate simulation modality to the learning objectives. If the learning objectives relate to diverse competencies such as communication and the integration of psychomotor skills, clinical decision-making and professionalism, SPs are probably a more appropriate simulation modality than mannequins [29]. Of course, cost is always an important consideration but to automatically dismiss working with SPs because of the cost overlooks the fact that all simulation modalities have associated costs. For example, mannequins have costs associated with purchasing, running and maintaining them [32–35].

Misconception: *SP work is easy and fun – it's not a real job.*

The Evidence: SP work can be fun, and it is also a highly demanding job. Depending on the learning objectives and context, the SP may perform up to three tasks simultaneously: recollect details to authentically portray a role; remember what was discussed to document performance on assessment forms; and, provide verbal or written feedback about their experience with the learner. The work may be physically and mentally demanding in a variety of ways including long testing days that require stamina and intense

concentration. Certain cases require repeated physical exams which may cause some discomfort [36–40].

Misconception: *Working with volunteer SPs will save my program a lot of money.*

The Evidence: Working with volunteer SPs will still require a budget line. Someone with expertise in SP methodology must recruit these volunteers, screen them, prepare them and ensure their quality and wellness [35, 41–45].

Misconception: *Volunteer SPs are not as effective as paid SPs.*

The Evidence: There is no evidence to suggest that volunteer SPs are more or less effective than paid SPs [14, 42, 46–51].

Misconception: *It is too expensive to train and hire SPs as physical exam instructors.*

The Evidence: Allen et al. [52] report working with SPs who are carefully trained to teach physical examinations and are also known as Physical Examination Teaching Associates (PETAs) or Patient Instructors (PI) is cost-effective, actually saves money, and is very popular with learners.

Misconception: *Some SP applicants think that being an SP means that they will be involved in medical experiments or undergo medical procedures.*

The Evidence: SPs do not have medical experimentation or medical procedures done on them. There is a strong ethical component to SP work, and to simulation in general, that would not allow for this kind of situation to happen [2, 53].

Misconception: *When I tell someone in a social setting about our program they say "Oh I have relative who would be perfect for this work. She's such a character".* (e-mail to Gayle Gliva-McConvey from Nancy McNaughton, 25 June 2019; unreferenced).

The Evidence: SPs portray 'characters', or someone other than themselves, but it is generally not a prerequisite and can sometimes be as a hindrance if they are 'characters.' To be a character implies someone with unique or quirky traits that are sometimes larger than life. The behavior of 'characters' can often pull a group training off track and frustrate other SPs. Additionally, 'characters' may engage in inappropriate interactions with learners (e.g. too much familiarity, inappropriate humor) and derail the learning activity from meeting the objectives. Clearly outlining the roles and responsibilities of the SP can help

these individuals and yourself decide if SP work is the right fit for them [2].

Misconception: *Some people believe that there is no appreciable impact if last-minute changes are made to case materials* (e-mail to Gayle Gliva-McConvey from Terry Summer, 23 January 2016; unreferenced).

The Evidence: Flexibility is an important quality for SPEs and SPs [14]. Sometimes last-minute changes are inevitable but working habitually in a last-minute manner can be confusing and challenging for SPs and learners alike and erode the quality of the experience [54]. The ASPE SOBP offers guidance to help minimize these kinds of situations, such as creating explicit policies and procedures, allowing adequate time for the development of cases, and scheduling in a dry run or a pilot run to test the case prior to the actual simulation session, especially for a new case [2].

Misconception: *There is no impact on SPs if they play a complex case with a high emotional affect or complex physical maneuvers repeatedly over the day*

The Evidence: While SPs often feel that their SP work is among the most rewarding work they do, this work may come with emotional and physiological costs. Portraying highly emotional roles a single time a day can be draining. Portraying them multiple times can be overwhelming. McNaughton et al. [37] describe several residual psychophysiological effects after SP portrayal of emotionally intense roles and identify variables that are related to these residual effects. ASPE SOBP Domain 1 – Safe Work Practices [2] outllines the need to develop strategies to mitigate potential adverse effects to prevent SP injury or fatigue. McNaughton et al. [37] note that understanding the impact on SPs when portraying emotional roles, can lead to "improved recruitment, training, and performance". [37 p135]

Misconception: *SPs have a hidden agenda and/or are trying to trick learners.*

The Evidence: SPs are not trained to have hidden agendas, and SP roles are not designed to trick learners. Rather, SP cases are carefully designed to support the learning objectives, and SPs are carefully trained according to the case details. For example, unless it is part of their role, SPs do not fill in gaps in the information, make assumptions, mislead or hold back information. However, if a learner only asks closed-ended questions then the SP will answer accordingly with short answers. If SPs suddenly say something that seems to be disconnected from the conversation, it is usually a prompt to get learners back on track rather than an attempt to trick them [12, 15, 55].

Training SPs

Misconception: *Only clinicians who are subject matter experts (SMEs) should train SPs.*

The Evidence: Having a clinical background can sometimes be helpful but is not essential to be an SPE. SPEs and SMEs bring different perspectives to the SP training process. SPEs are the experts in SP methodology. SMEs understand the clinical components of the SP's task. Ideally, SMEs and SPEs are working together as a team to bring their respective areas of strength to the process of training SPs [56, 57].

Misconception: *SPs don't need training.*

The Evidence: No matter what type of SPs on the Human Simulation Continuum (e.g. role player, structured role player, embedded participant, simulated patient, standardized patient or standardized patient for high stakes assessments) you work with, they must be prepared and/or trained, to a level deemed appropriate for a particular session, to ensure the safety and effectiveness of a simulation [2].

Misconception: *SPs can be trained to portray any person or work in any situation.*

The Evidence: It is important when selecting SPs, to consider many factors, including what Cleland et al. [14] refer to as their ability and suitability. SPs are not interchangeable widgets. Not all SPs can do all roles. Ability and skills are important to consider. A large part of the SPE's task is to select the right SP for the right role. In addition, casting SPs in some roles can be unsuitable for various reasons. For example, there could be a conflict of interest (e.g. the SP is a close relative of the learner). Personal circumstances may also preclude a SP from being involved in a session. If an SP has had a recent death in the family, asking that SP to do a breaking bad news role could be devastating for both the SP and the learner if the SP becomes upset in the role. SPs should always be allowed to opt out of a role, even if they have been cast and trained, if they perceive that actually doing the simulation session would cause them distress [2]. As SPEs, we have an ethical imperative to screen for and ensure the psychological safety of all involved in the simulation [58].

Misconception: *At our site, we only work with confederates who are practicing clinicians. They don't need any training because they already know what to do.*

The Evidence: Confederates, or embedded simulated participants are "individuals who commonly portray the role of healthcare professionals in mannequin -based simulations". [58 p45] They may have subject matter expertise but may not understand how to work within a simulation. Sanko et al. [35] state: "simulation programs that lack training and assessment of ESPs [embedded simulated persons] do their learners and their programs an injustice, robbing them of the full spectrum of engagement and learning that can take place in a well-rehearsed, well-rounded and well-acted simulation experience". [35 p213]

Misconception: *I only work with confederates or embedded simulated participants, so I can't/don't use SP methodology because it's only relevant for training those who are going to portray patients.*

The Evidence: There are nuances in the different roles that SPs can take on [58, 59] but as the ASPE Standards of Best Practice [2] note, SP methodology can be employed for all human role players in simulation. For those educators just starting to work with human role players, it is helpful to know that the wheel does not have to be reinvented and there is an existing methodology in place to support and guide practice.

Misconception: *SPs don't need /shouldn't be provided with too many case details to portray a person in a case.*

The Evidence: SPs require enough detail to bring the person they are portraying to life in an authentic manner. They also need a common understanding of any additional information that they might he asked so they are able to interact with learners in a confident and consistent manner. Sometimes, requests for this kind of information from SPs are seen as being frivolous or unimportant, but SPs often gain valuable insights from their front-line interactions with learners to anticipate the kinds of questions that they will asked or to spot missing details or gaps in cases. If these gaps are not filled, SPs may start to make things up, or come out of role, thereby disrupting the integrity of the encounter and losing confidence [15]. SPE Elizabeth Kachur has observed that it can be very upsetting for SPs if they are portraying people with serious medical conditions and they are not given information about possible outcomes before the session. She reports that rationales for not wanting to provide knowledge of a diagnosis to the SPs can range from thinking that there is not enough training time to cover it or that it is not important, or that if SPs are naive, they will respond more authentically. Kachur reports that this practice has the potential to be psychologically unsafe for SPs and she has noted that it can cause them great distress during and long after the simulation is over [60]. Withholding this kind of information has the potential to contradict the practices and principles in Domain 1 of the ASPE SOBP, Safe Work Environment [2], particularity related to psychological safety.

Misconception: *SPs can use their personal histories. This will save time writing cases and training SPs.*

The Evidence: In certain contexts, SPs do use their own histories [14]. However, it is also important to be aware that if SPs use their own histories, they might introduce distracting or extraneous information or stray into territory that is upsetting for both them and/or the learners and that is not related to the learning objectives of the session [5, 58].

Misconception: *SPs do not need to be de-roled or debriefed.*

The Evidence: As outlined in the Phases of Simulation model developed by Nestel [29], de-roling SPs is an essential step and one that is often overlooked. De-roling is a technique derived from drama therapy and acting [61], through which SPs portraying roles, particularly ones that are intense or upsetting, can release or separate from the roles so they are not adversely affected. In addition, it is increasingly being recognized that, as with learners, debriefing SPs helps them to reflect and grow, allows for reflection and assessment of the quality of SP participation and attends to SP wellness [58, 62].

Misconception: *SPs don't need to be trained to give feedback; rather, they should just provide an honest account of what an interaction was like for them.*

The Evidence: Sending SPs into a room without training in feedback delivery can result in unsafe situations and ineffective outcomes. Delivering feedback is a learned skill that must be practiced and continually refreshed. In addition, there are many different models of feedback and the SPE needs to be clear about which model is being required in a session so they can train their SPs appropriately. SPs also need to understand what the focus of their feedback is and that the focus can vary from session to session [63–65].

Misconception: *Physical examination techniques should only be taught to learners by clinicians.*

The Evidence: Several studies have proven that carefully trained SPs can train learners to conduct physical examination skills as effectively or more effectively than clinical faculty [52, 66, 67].

SPs and Assessments

Misconception: *There is no solid research base for evaluating SP-based assessments.*

The Evidence: Research started in the late 1970s to determine the reliability, validity and other psychometric criteria of assessments with SPs [68–73]. Colliver [10] notes that "a database prepared by the National Board of Medical Examiners (NBME) in 1991 listed 209 articles on SP assessments". (p454) By the mid-1990s, the US-based National Board of Medical Examiners was satisfied with the research demonstrating the value of SPs in assessments and implemented the Step 2 clinical skills component of the licensing process in 2004 [74]. Although there are regional variations, SP-based summative assessments are now implemented around the world, including in the UK, Australia, New Zealand, United States, Canada, Switzerland and Taiwan, to name only a few countries.

Misconception: *SP scores aren't reliable (reproducible).*

The Evidence: As Zabar et al. [75] note: "Many programs use SP raters since they can achieve a good level of reliability". [75 p22] Swanson and Stillman [76] comment: "There is little difference in the reliability between SP and faculty raters, though the two may rate somewhat different skills depending on the study". [76 p91]

Misconception: *Physical Exam Teaching Associates (PETA)/Patient Instructor (PI) scores aren't as accurate as physician scores.*

The Evidence: A 1987 study by Elliot et al. [77] reported that "faculty observers reliably assessed 68% of physical examination skills. Patient Instructors provided an assessment that was comparable with faculty observers for 83% of these skills…even when SP training was low". [77 p3408]

Misconception: *PETAs can't teach the physical examination techniques as well as physicians.*

The Evidence: PETAs have effectively taught physical examination techniques as demonstrated in several studies [52, 78, 79]. Barley et al. [66] report that PETAs can teach physical examination techniques as well or sometimes better than clinical faculty.

Misconception: *SPs cannot assess communication skills.*

The Evidence: SPs can be trained to assess observable behaviors related to patient-centered communications skills (e.g. fostering the relationship, supporting emotions), such as in the United States Medical Licensing Examination (USMLE) [80, 81].

Misconception: *SPs cannot provide accurate ratings of a physician's interpersonal skills.*

The Evidence: In a 2007 study of 37,000 international physicians completing the Educational Commission for

Foreign Medical Graduates (ECFMG) certification examination, Van Zanten et al. [82] reported data from over 400,000 SP encounters. They analyzed four interpersonal dimensions: skills in interviewing and collecting data; counseling and delivering information; rapport; and, personal manner. Results indicated that "SPs, with proper training and a benchmarked scoring rubric, can provide accurate and defensible ratings of physician's interpersonal skills". [82 p195]

Misconception: *When students who have finished an assessment tell their peers who have not yet done the assessment about the cases, it is a threat to the validity of the assessment.*

The Evidence: Five studies conducted during 1991–1992 reported no consistent, systematic increasing (or decreasing) trend in scores throughout an examination period across 23 sites. Learners who were tested later in the examination period did not perform at a higher level. Additionally, just because the learner knows what the diagnosis is, it does not mean they can demonstrate the clinical and interpersonal skills. In fact, having this pre knowledge may even hamper their performance [83].

Misconception: *SPs are biased/not biased when scoring learners.*

The Evidence: We all have bias [84] and even the most rigorous training cannot prevent bias from creeping into an SP's work [85]. SP educator Tony Errichetti notes that there are two types of bias: "statistical bias and personal bias, both of which are potential sources of SP/rater scoring errors" (e-mail to Cathy Smith from Tony Errichetti, 18 June 2019; unreferenced). There are many published strategies for dealing with statistical bias related to SP assessment [72, 86]. Personal bias, which refers to subjective beliefs and values of an individual [87], is increasingly being recognized as an important factor to consider in simulation and beyond and may best be addressed with the support of inclusion and diversity professionals.

Misconception: *SPs are not subject matter experts and therefore can't/shouldn't judge clinical content.*

The Evidence: It is true most SPs are not subject matter experts and therefore cannot judge clinical reasoning. However, with careful training, SPs can accurately document whether learners have addressed aspects of clinical content linked to a scoring tool they have been trained to use. Also, it is critical to design a checklist that has evidence-based clinically discriminating items to improve the reliability of the checklist scores of SPs [83].

The ASPE Standards of Best Practice (SOBP)

Misconception: *The ASPE SOBPs are only applicable to larger, well-resourced programs.*

The Evidence: The ASPE SOBP [2] were developed to be applicable to SP programs and practices with diverse characteristics, resources and cultures. These standards are designed to be both foundational and, depending on the context, aspirational. The SOBP provide precise and yet flexible guidelines that address the diversity of varying contexts of SP practice, and size of programs.

Misconception: *The ASPE SOBPs don't apply to my SP work because my program doesn't have high stakes exams.*

The Evidence: Training SPs for high stakes exams is just one aspect of SP methodology addressed in the ASPE SOBP. It is acknowledged in the document that because of the wide variety of work that SPs do, not all Domains and the accompanying Principles and Practices will be applicable to all programs [2].

Misconception *I've been getting along just fine in my SP program for many years doing it my own way, so I don't need to follow the ASPE SOBP or any other standards.*

The Evidence Practice 5.1.1 of the ASPE SOBP Domain 5, Professional Development [2] notes that SPEs should "develop and promote expertise in knowledge, skills and attitudes related to SP-based simulation". [2 p7] Therefore, as evidence emerges and standards are developed and refined related to both SP methodology and broader simulation practices, the SPE has a professional obligation to reflect on how to incorporate this new information into their practice.

The Role of the SPE

Misconception *SPEs are not necessary – SPs can train themselves.*

The Evidence SPEs and SPs have a symbiotic relationship. The ASPE SOBP [2] describes SPEs as "those who work to develop expertise in SP methodology and are responsible for training and/or administering SP-based simulation". [2 p3] Emerging research and thought related to the evolving roles and responsibilities of the SPE and the SP indicates that the scope of SP practice continues to evolve and that SPEs and SPs have a relationship that shifts according to different contexts [11, 31, 88]. Nestel et al. [11] note: "All of this work is essentially collaborative … . Recognition that SPs are integral players providing educational input from a unique loca-

tion and as part of an overarching learning plan means that the educational alliance can be turned into opportunities for rich learning. The role of SP practitioners [SPEs] is to position SPs to productively engage in these activities". [11 p701]

Summary

By responding to misconceptions related to working with SPs, SPEs can maximize the potential for ensuring that the effectiveness and safety of an SP-based session is maintained. In addition, there is a valuable opportunity to engage with, educate, and learn from other stakeholders. Finally, addressing these misperceptions points out the importance of the SPE working in an evidence-based manner. Moving forward, we encourage open discussion about misconceptions related to SP methodology with the goal of strengthening and transforming the possibilities for working with SPs.

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Reimagining SP Methodology

17

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Catherine F. Nicholas, Emma Vick, Tamara L. Owens,
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Introduction

The voices of 14 SP Educators from varied backgrounds—including time in the field, affiliation, culture, as well as academic and professional disciplines come together in this chapter. They offer their ideas, intellects, manifestos, and hearts as they flash forward to the future of our human simulation profession to reimagine where it is going and how it might take shape. They collectively discuss challenges but—always optimistic—reframe those challenges into opportunities for growth. Those opportunities for growth are presented philosophically and come in the form of pragmatic ideas. Just a few of the many tangible suggestions for professional growth of the field include: improved clinical communication skills training with emphasis on compassion and provider wellness, SP Educators as social activists facilitating healthcare training with and for underrepresented groups, and ways to collaborate with our technical simulation counterparts to ensure that human simulation methodology is skillfully partnered with other simulation modalities including virtual and augmented reality. Our hope is to leave you, the reader, inspired to take the next steps in imagining what the future of our profession holds for you, your learners, your colleagues, your institution, and—of course—your SPs!

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Utilizing Human Simulation to Nurture Compassion in Healthcare and Humanity

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> If you want others to be happy, practice compassion. If you want to be happy, practice compassion. – The Dalai Lama [1]

We humans are at a compassion crossroads. It is well documented that compassion and empathy are reported to be on the decline in America broadly [2] and in the healthcare industry specifically [3]. How can healthcare professionals care for patients when they find themselves in training programs [4], work settings, and cultures that do not practice or support compassion as part of their overall health? Clinicians are not immune from being part of tragic patient statistics that include rising rates of burnout and the accompanying mental and physical ailments [5]. Without a healthy provider workforce capable of providing compassion along with clinical care, the health of our society is jeopardized. If we continue down this path there may likely come a time when healthcare providers cannot alleviate the suffering of others, endangering compassionate care. We need to pay attention to this compassion crossroads as human beings and as human simulation professionals. What can we do to further nurture compassion in healthcare?

We can think expansively, beyond individual SP encounters with learners to apply our best practices to systems-based problems. We can confidently partner with subject matter experts and clinical colleagues to create and study simulation activities in support of learner wellness, informed by our knowledge as human simulation experts with multifaceted backgrounds in disciplines such as communication, theater, and education. Building on individual simulated encounters between learners and SPs, we can consider how to adequately and accurately assess communication skills—including compassion expressions—in team training simulations. We can provide constructive feedback in a nuanced fashion on contextualized communication skills including compassion expressions that move beyond the foundational items often found on simulation checklists (e.g. "maintained eye contact"). Further, we can specifically define what we mean when we use the words compassion and empathy on simulation checklists rather than leaving the terms open to interpretation. We can collaborate on developing curriculum that places the well-being of healthcare trainees at the forefront of learning objectives, by requiring them to utilize and reflect on self-care skills before, during and after simulated encounters. We can utilize our collective knowledge partnering with seasoned SPs to take our methodology out of the simulation center and into the clinic setting,

working to coach providers on clinical communication skills including compassion. It was doing this very work with residents at Walter Reed Military Medical Center that made me begin to see that what was being labeled as their communication problems were profound professional development challenges in a system that did not always support them. When we look up from or get out from behind our computer screens in the monitor room, out beyond each individual simulated exam room, we can consider how our work may impact health systems. In taking a systems approach we will discover new horizons and advance SP Education best practices along with healthcare training and delivery.

In the midst of all of this, let us remember the Dalai Lama's quote and not forget ourselves. In practicing compassion for others and with others, we must begin with the self. In order for us to support our learners in wellness, we must pursue and practice wellness for ourselves as human simulation professionals. As the demand for our work continues to rise, so must we—to the occasion. The latest technology alone will not advance our profession. Our ability to work harder and longer hours alone will not advance our profession. Elevating our presence within the global simulation community—while important—will alone not advance our profession. Formalizing our profession alone will not advance our profession. Innovating new training techniques alone will not advance our profession. Continued professional development and education alone will not advance our profession. Achieving equitable salaries and compensation alone will not advance our profession. Surmounting routine and more significant challenges alone will not advance our profession. Publishing the innovations that come as a result of all of the above work alone will not advance our profession. If we do not encourage our learners and ourselves to care for one another and compassion does not flourish as a cultural value in healthcare training and practice, none of these other efforts will matter. Reimagining the future of SP methodology begins by seeing beyond one connection—the human being who is suffering and the healer that is acting to relieve that suffering—to see compassion as transactional and collective communication in which infinite hands reach out to hold and catch one another. Hands that lift each other up, higher, higher, higher still so that compassion does not exist represented solely by one checklist item or as a highlighted commodity in healthcare because it is everywhere in our culture. Hands that join to construct a culture in which no one owns compassion and in which every person is both a provider as well as a recipient—a culture in which patients are healers and healers are patients. As human simulation professionals we have the unique opportunity, expertise and responsibility to co-create new paths for human interaction at the crossroads that nurture compassion in healthcare and humanity.

Advocate—Educate—Collaborate

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I do not have a panacea for the challenges that inherently exist in the field of SP methodology, nor can I envision a single lodestar that leads the field into the future. The team-based approach necessary to create quality, nuanced educational experiences in a safe learning environment requires vast investments of time, resources, and care from many parties both from inside and outside the field of human simulation. As such, my thoughts for advancing the profession tend towards broad actions: advocate, educate, and collaborate.

As educators, we must advocate for our field, our methodology, ourselves, our SPs, and our learners. This means pushing to create more robust simulation centers and programs that allow for career growth and development. This means both being present and having a voice when curriculum and buildings are designed. It is about aligning productivity expectations with the realities of career burnout. It is about ensuring that programs find strategies to foster growth, engagement, and safety for learners, SPs, SP Educators, and faculty. Ultimately, any learning experience is dependent upon balancing the needs of these participants If they are out of harmony, there will be inherent problems.

Similarly, we must educate ourselves and those around us. As the body of research and literature in our field continues to increase, as various credentials and certifications become more commonplace, and as the requirements and expectations of simulation rise, we must continue to strive for higher standards. Our advocacy can only grow louder if we continue to match the expectations of higher education. In addition, we must continue to teach and detail our work to people who are not involved in healthcare education. While our research continues to grow, the understanding of simulation remains frozen in time. In discussing simulation with well-meaning outside parties, the first question is often about Cosmo Kramer. Each year, the same news article is released. A different newspaper with a different school and a different set of voices runs a piece that asks the same question, "Did you know that actors do this thing?" Yes, and so much more. Simply put, simulation can move beyond *Seinfeld*.

Finally, we cannot silo our educational efforts or our advocacy. Just as we must be present for more conversations, we need to invite more participants to ours. SP methodology has grown and expanded because it was built on the practices of many different aspects of medicine, assessment, education, and performance. As it finds ways to harness and incorporate the nuances inherent in these fields, it must continue to foster collaboration, promote professional intersectionality, and amplify and validate diverse cultural lenses. Learners need to understand not just how to treat *any* person but how to treat *each* person.

The future of simulation is readily apparent. Simulation is growing and will continue to grow. Each year, conferences swell with new attendees and calendars fill with more events. As SP educators, we must look to position ourselves as an important voice among many, so that we can effectively nurture active learning and education.

Are You Familiar with Standardized Patient (SP) Methodology?

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Are you familiar with Standardized Patient (SP) methodology? I remember being asked this question in advance of becoming SP Center Director in December 2015. To be honest, at that time, I had heard of SPs and OSCEs but had no idea of the massive undertaking I was about to embark upon. What sparked my decision to take the job then still drives my passion for this field today, and that is educational impact. Although the value and importance of medical simulation in higher education is undeniable, adding the "human element" takes education and assessment to a different level. It also adds a level of complexity to designing and implementing educational and assessment activities that is often severely underappreciated. The phone calls and emails assuming we can supply an SP, trained and ready, on a moment's notice can be frustrating. Yet, it does highlight the urgent need to help spread knowledge and best practices in our field to all levels in our own programs, institutions, and beyond. Therefore, the publication of the ASPE Standards of Best Practices has been invaluable at reinforcing our center's current policies and procedures.

I entered my current position with past experience as a medical educator and biomedical researcher. I did not realize at the time that working in SP methodology would not only contribute greatly to my educational and scholarly aspirations but would also foster a sense of creativity and innovation in education that I had not experienced before. I quickly learned that the community of SP Educators from around the globe are some of the most collaborative and inspiring individuals I have worked with. SP Educators put educational excellence at the forefront of all they do. Now I know we must do this, or we can quickly become complacent due to increasing high demands put on our operations. Since I assumed my current role, the volume of SP-based activities our center conducts annually has dramatically increased. This puts a strain on both human and space resources. Finding ways to support adequate personnel, a large SP pool, and necessary space

requirements is becoming an increasingly important task. However, I think it reflects how exciting our field truly is and that institutions are beginning to embrace the full potential of what SP methodology has to offer.

When I started my current position, our SP Center was an integral component of the School of Medicine. Yet, we were also conducting both formative and summative events for other programs, such as the Schools of Nursing and Health Professions. Therefore, we successfully transitioned the SP Center under the Provost's Office, so it is now a university-wide education center. This helps to convey that SP methodology can be inclusive to all programs whether health-related or not. It is experiential and active learning at its finest. It seems we are on the cusp of knowing how and where SP methodology can impact education outside of health professional schools. I, for one, am excited to see what the future holds.

SP Methodology— A New Season

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My introduction to SP Methodology was at a Midwestern medical school in the early 1990s. I had the opportunity to act as a site trainer for a pilot project with the NBME Step 2 Clinical Skills. Applying SP methodology to medical school and graduate medical education, I recruited and trained SPs, developed case materials, and constructed Clinical Skills Assessment blueprints to evaluate learners and curriculum for medical students and residents. By the early 2000's, SP methodology had increased in scope. In 2003, our SP program applied SP methodology to sexual assault nurse examiner (SANE) training & crisis intervention team (CIT) training for public safety officers. We utilized SP methodology to train health, human service, public safety and legal professions to practice collaboratively. From training sexual assault nurse examiners on both the technical and communication skills necessary to competently and compassionately collect evidence and testify on behalf of persons who had been sexually assaulted to training public safety officers to humanely triage severely mentally ill persons to psychiatric emergency services and divert them from the criminal justice system, SP methodology was promoting collaboration, critical conversations, and socially sensitive human interaction to enhance health and society.

As health professions education accreditation mandated interprofessional education, SP methodology promoted collaborative inclusive practice via teamwork and communication skills. Students of medicine, pharmacy, nursing, advance practice providers, physical therapy, occupational therapy, speech and audiology, nutrition, exercise science, social work, chaplaincy and EMS worked with simulated caregivers to learn about roles & responsibilities, the social determinants of health, and effective collaboration to enhance outcomes for patients, caregivers, and providers. With the publication of the ASPE Standards of Best Practice in 2017, SP methodology was articulated as a framework of domains and values. How fitting that as I write this in 2019 as the Sr. Executive Director for interprofessional and simulated patient services, spring is in full bloom. SP methodology has entered a new season, full of growth and vitality – a profession with defined standards of practice, a body of evidence to support best practice, and continued innovation to teach healthcare professions and beyond. Indeed, health care professionals continue to need to be trained how to interact empathetically with patients and families in a complex fast-paced healthcare system that places a premium on proficiency and productivity. With patient satisfaction as a benchmark for quality healthcare, application of SP methodology to health professions education will continue to grow. The future of SP methodology is to contribute to safe, effective, relationship-centered care where the clinician, patient, and community thrive. As technology and social media continue to influence health behavior, healthcare professionals need to be educated about best use of technology and social media to engage patients and enhance population health. Simulated patient methodology will need to leverage technologies such as telehealth or social media to extend healthcare access to patients and families. Regardless of the innovations of advanced technology, the opportunity exists for SP methodology to continue to promote socially sensitive human interaction, connection, and engagement to improve health and society.

Excellence

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My introduction into the world of standardized patients and OSCEs started in 1996, when I accepted a job teaching clinical skills to medical students at Loma Linda University School of Medicine. Although teaching was my primary duty, the Clinical Skills department was also developing what was to become a robust standardized patient program as well. Loma Linda was one of a five school California Consortium, now with eight member schools, which had received money from the Macy Foundation in 1994 to collaborate and develop an 8-station OSCE for their senior medical students. I started a month before the 1996 exam was to start. The terminology alone was daunting; "checklists", "guides to checklists", "training materials", "presenting situations", "standardized patient", "OSCE", "USMLE", etc. At that time, we were also running two pilot cases for the future USMLE Step 2 CS exam. My first all school meeting with

the consortium was humbling and exciting. The diversity, knowledge, and experience of the members certainly impressed me and learning from the best instilled in me a standard of professionalism that I strive to meet every day.

I describe the standardized patient part of my job to people who ask about it in basic terms. In reality, this part of my job is anything but simple. My medical background has served me well; however, my nursing courses did not prepare me for the demands of the educational aspects of medical education. This led me back to school to complete a master's in education of Health Professions. Education is an important key to our success. Without furthering our knowledge base, we risk becoming stagnant and out of touch. This does not mean that everyone should run out and get degrees. However, we should search for opportunities to advance our knowledge by reading articles, keeping up to date on educational trends, and increasing our medical knowledge. We should always look for opportunities to learn from others and advance our ideas by attending national meetings and reaching out to others in the field.

The future of SP methodology relies on all of us striving for and maintaining excellence. We have worked hard in our profession to get where we are today. The focus should be on quality, not quantity. Observing a medical student interact with an SP provides a wealth of knowledge in regard to their clinical skills, but we need to continue to make sure the projects we develop are the best way to assess or enhance our learners. As our departments increase in personnel and we are running more OSCEs, OSCAs, and Sim scenarios, it is easy to let our guard down, but it is important that we never lose sight of the fact that our work is a key element in an individual's development. Our work can often be fast paced and chaotic. We can find ourselves putting out fires, treading water, and just barely getting the job done, but at the end of day, we are professionals that must strive for excellence by furthering our education, networking, collaborating, and becoming experts in our field.

SP Educators—Change Agents and Innovators

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In 2005 I attended the Association of Standardized Patient Educators (ASPE) conference in Chicago. As an experienced SP in Canada and the United States, I had finally made the transition to SP trainer and I was eager to see what lay behind the curtain of this fascinating new world. During that first conference I felt I had found my tribe. Here was a unique, dynamic group of individuals, all with their own stories, all with varied backgrounds and experiences. Few of us had chosen this line work. Rarely, if ever, was "SP Educator" uttered when we

were asked what we wanted to be when we grew up, but our paths had brought us together, ready to collaborate and learn.

Looking back, I marvel at how far we have come. My job is now my career and through the efforts of professional associations such as ASPE and the Society for Simulation in Healthcare (SSH), and the work of many institutions and countless individuals, our profession has been elevated and we are earning legitimacy and respect in the world of healthcare. Simulation education has arrived with a roar and we have much to be proud of.

I am excited about our future but with success and maturity comes challenge and responsibility. As SP Educators we must raise the bar for ourselves and engage in ongoing professional development and education. Our individual histories are the source of our talent and strength but that must be supplemented with the knowledge and the skills which allow us to serve our institutions and our industry as simulation education experts. We are a valuable resource and must be active participants at the table in the design, development and implementation of simulation curricula. As we move from being "trainers" to "educators" we need to understand applied learning theories, instructional methods, curriculum development, assessment of learning, and program evaluation. Where possible, we must turn our daily activities into scholarly work through participating in qualitative and quantitative research. In short, we must advance and grow with our profession to meet the rising expectations set before us, and to ensure that our job classifications and salaries reflect the true value of what we bring to the world of healthcare—as educators.

Of course, many will say this is easier said than done in the face of how busy we are, and it is a legitimate concern. Moving forward how will we manage the workload while maintaining quality and preventing burnout? I'm afraid I do not have any easy solutions to this question, but I am confident of one thing. As SP educators we have demonstrated time and time again that we are change agents and innovators and as a community we will adapt, persevere and continue to mold and shape our profession for generations to come!

SP Educators Say Yes to Growth

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I entered the world of SP Methodology in early 2004. In the midst of a life transition and looking for the next step, a close friend (an SP and GTA) suggested this work as something I would enjoy and would fit my skills and personality. I joined a GTA program first and loved it immediately. Within a couple months I also became an SP, portraying a variety of illnesses, and teaching physical exam and communication skills. A few years later was offered the job and title of Standardized Patient Educator.

In the 15 years I've been involved with SP Methodology I've seen the profession grow exponentially, in our own Clinical Simulation Laboratory at the University of Vermont, and worldwide – both in scope and numbers. It is exciting, and a distinct pleasure to be a part of this field that contributes the safe and compassionate care of millions.

I believe that a central reason we are growing so rapidly is because SP Educators are YES! people; we say yes to trying new methodologies and scenarios; yes to innovation and investigation; yes to new technologies; and yes to inclusion – of ideas, groups, clients, staff, faculty, and learners. I have only ever heard the word yes from my colleagues across the globe to requests for sharing of methods, information, and specific scenarios and cases. We are a welcoming and generous group; that precedent was set long before my entrance into this field and continues today.

So, growth is good, right? I unequivocally say yes – after all, I AM an SP Educator.

And growth also means accepting change; we are now at a point of looking appreciatively at all that has been before and considering which pieces still fit, and which need altering. I am reminded of my godson and his favorite red plaid flannel pajama pants; when originally purchased they were loose, baggy, and way too long (I hemmed them) and he loved them for nearly 5 years. Over time we altered them as needed – the hem was let down, and knees were patched. He recently tried them on and could only pull them up as far as his thighs. For so long (nearly half of his life) they were comfy and just right, and now they just don't fit. But they are still beloved.

Every year in this field I see changing trends and areas of new attention, and I appreciate that we, as a profession and a community, continually ask which pieces need alteration or patching, which do not, and which simply don't fit anymore. The trends I see currently are in developing standards of best practice, and universalizing terminology; two areas that enhance our professional reputation, and the understanding, inclusion, and communication among us globally.

The question of where we'll go next is huge and is perhaps not completely knowable. I believe that, due to the curious and generous nature of SP Educators, this question will continue to change year by year as we navigate this evolving field. History shows us that that the more we grow, again, in both numbers and scope, the more opportunities for growth and expansion present themselves. And we will continue to say yes and continue to evolve.

The SP Educator as Activist

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Bring forth the agitators. The accomplices. The activists [6].

As SP Educators take great strides to formalize our field, we must not lose sight of the foundation and history of our field. We are, first and foremost, agitators. We are innovators and radical advocates for the patients and learners we serve. At the center of our work is the patient. No matter how many new technologies come along, SPEs will focus on the human connection. We are there to remind us the patient is the center of all we have done, all we do, and all we will do next.

SP educators have always played a role in advocacy and activism within healthcare. Principles and practices that guide activist education speak directly to SP methodology:

1. Experiential learning;
2. Creation of a safe and supportive learning environment;
3. Respecting the expertise and voice of the 'patient.' [7]

We improve the health of patients and communities by emphasizing patient-centered care and a focus on interpersonal communication. By training our learners to start with understanding the person in front of them and their lived experience, by exploring their ideas of health and illness and by establishing a shared decision-making process, we contribute to the process of restoring a voice to those with less power.

Healthcare is an ever changing and rapidly evolving field, and SP Educators and SP methodology are vital to address a range of complex issues that keep clinicians up to date in their respective fields. We find excellent SP programs around the world at many healthcare educational schools, colleges and universities. However, we must also strive to expand the reach of SP methodology in intentional ways into hospital and outpatient settings.

These are a few areas in which SP Educators can combine their expertise with activism:

- Medical Error: Hospital errors account for a large percentage of fatalities. Since SP methodology is shown to reduce medical errors, hospital-based advocacy is a clear mission for our field. There are challenges in effectively addressing the root cause of many errors and we know that SP methodology can play a large part in addressing these systemic issues by improving direct patient care. Simulation offers ethical benefits, increases precision and relevance of training and competency assessment, and efficiently introduces new methods of teaching error management and safety culture [8].
- Maternal Mortality: The US has the highest maternal mortality rate in the developed world with 700 women dying from pregnancy related deaths each year. More than half of the US pregnancy related deaths are preventable. Women of color are three times more likely to die from pregnancy-related issues than white women. Most of these deaths are preventable. SP methodology can be used

to educate healthcare providers on structural factors that impact health and standardize responses to obstetrical emergencies [9].

- Addressing the Opioid Epidemic: Opioid dependence syndrome has become a public health crisis. Every day more than 130 people die from opioid overdoses and every 15 minutes a baby is born suffering from opioid withdrawal. SP methodology can be used to help MDs work with patients on pain treatment planning pre-surgery and can train family and community members to recognize an overdose and administer Narcan [10].
- Human Trafficking: 'Human trafficking' refers to the use of force, fraud, or coercion for the purpose of commercial exploitation. SP methodology is being used to create educational opportunities for medical, nursing students, residents and providers around the country to learn how to recognize and refer potential victims for care [11].
- Improved Care for People with Disabilities: By developing partnerships with disability organizations and involving people with disabilities in the development, implementation, and evaluation of standardized patient cases, we can assure that we accurately reflect their self-identified needs, concerns, and priorities [12].
- Resolution of Medical Ethics Issues: SP methodology is an effective tool to teach and assess learners and clinicians to identify and resolve common ethical issues [13].
- Improve Care for LGBT Patients: The Association of American Medical Colleges (AAMC) has recommended that "medical school curricula ensure that students master the knowledge, skills, and attitudes necessary to provide excellent, comprehensive care for [LGBT] patients" by including "comprehensive content addressing the specific healthcare needs of [LGBT] patients" and "training in communication skills with patients and colleagues regarding issues of sexual orientation and gender identity" [14].

The ASPE SOBPs are both practical and aspirational. We seek a gentle excellence from ourselves and our peers. We have a responsibility as a vital component of healthcare education to expand our role in improving patient care and outcomes. May the future see our field embrace the SOBPs with energy and intentionality as there are new frontiers to tackle and new communities to impact in small and big ways.

Leadership Diversity, Broader Scope of Practice, and Increased Scholarship

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I love being an SP Educator. I will forever be grateful to the trailblazing women and men who stayed the course that has afforded me a career. Through the SP world, I found my passion and purpose. The courageous, commitment and responsibility the first-generation SP Educators embodied was transferred to me and my peers—the second generation. I listened and soaked up all the knowledge and wisdom possible from my mentors like Dr. Linda Perkowski. I didn't always understand but I trusted her directive and did what I was told. Along the way, I would have an "aha" moment solidifying the who, what, when, where and how of what she was trying to teach me. I hold dear and safeguard the teaching I received and the spirit of academic excellence that was modeled for me. Academic excellence meant not only in designing SP courses but pursing professional development through advanced degrees. The first generation passed the torch and set the expectation bar high. The second generation took up the torch with honor and met the challenge.

The torch is ready for the third and fourth generation SP Educators. However, are they ready? I call these folk the 'Raducators'. They embrace the SP methodology's history, but do not blindly follow like my generation. I must admit it drives me crazy and makes me think at the same time. Raducators are using their voices to be heard. They do not acquiesce to the status quo. To move forward, I believe we need this energy. However, I am concerned that preserving the rich history, norms, and standards of practice of the SP methodology may get lost. I believe the future demands a diversified leadership that preserves the past, believes in academic excellence but infuses a little radicalism. Obtaining advanced degrees gives you a platform to have a voice with impact. The path was made for Raducators to have the opportunity to receive certificates and certifications in the methodology. The question is how will the new torchbearers, Raducators, widen the lane and make degrees in SP methodology the norm for the generations to follow them.

Furthermore, the future of the methodology is to bring non-traditional approaches to the forefront. The SP methodology is the nucleus for many disciplines in and out of healthcare. As the nucleus, there are many non-traditional side streets that have yet to be developed and are our future. SP Educators need to broaden their scope of thought on the intersections of the SP methodology. It may be here that the new torchbearers find opportunities to use their radicalism to assist us in stepping out of our comfort zone to fortify the side streets into main thoroughfares for the methodology.

Lastly, our future must include an increased footprint in the literature. All SP Educators have a responsibility to publish. This is how we can increase our global presence. The way forward maybe forming regional research communities for the purpose of collaborating and committing to one publication per year.

Finally, I do not have all the answers but what I know for sure is that SP Educators are resilient and highly intelligent. The SP methodology's future will include thinking outside the box and will be evidenced based. Our resiliency inherently makes us leaders. I am excited about our future and I am committed to being a change agent for the SP methodology.

What's in a Name? Language, Connection and a Call to Partnership

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> What's in a name? That which we call a rose
> By any other name would smell as sweet.
> – William Shakespeare, <u>Romeo and Juliet</u>

As a lifelong lover of words and the cultures they shape and represent, Shakespeare's text has renewed meaning when I contemplate the progress of healthcare simulation. How is it that something so simple as linguistic differences powerfully change how we connect, evoking a sense of inclusion and exclusion, answering the question of who are *we*, and who are *they*?

We humans are social animals, and research shows that even infants have what appear to be genetically programmed pro-social behaviors. When we are accepted into a trusted group, our brains release oxytocin, and we feel good, safe, and we belong. On the flip side, this also means we must be convinced of who or what is different. Something even as superficial as changing the color of a person's clothing, signifying a different team alliance in a fictional game, causes immediate change in how that person is treated.

Growing up in the Midwestern United States as a child of immigrants from Korea, cultural adages were sometimes puzzling because of the words involved. The saying "the squeaky wheel gets the grease" seemed like a negative and undesired condition, because Koreans have a saying, "the empty wheelbarrow makes the most noise." At first blush they might be pretty much the same, yet no: one encourages self-advocacy, and the other illustrates the weight of wisdom (or lack thereof). I'd supposed they must be comparable sayings because they both refer to wheels and sounds.

In healthcare simulation, the terms *simulation professional* versus *healthcare simulationist* have clear associations with identity for human-based simulation and technology-based simulation, respectively. As a professional and global community of practice in healthcare simulation, we should respect these distinctions while also opening shared ground. Dualities, or a yin-yang, drive change and creativity in communities of practice [15]. One such duality has to do with how communities of practice relate to each other, sharing "knowledge of a particular domain that will be of relevance to others who are not involved in it." [16] Just as with learning, this happens well when stretching into "boundary encounters," where the zone of overlap is small but not absent.

Taking a step further, how do patients connect with what we do? Truly, the question applies to anyone depicted in a simulation, so "patient" could be exchanged for other groups. In my vision for a future of simulation, we embrace patients and their health as another community of practice. Yes, there is patient-centered care. More than this, we need a patient-*partnered* approach to education. As in my childhood experience of similar-seeming terms leading to distinct meanings, the difference is not just a semantic one. Parts of patient centered care, such as shared decision-making or motivational interviewing, function with the clinician as a benevolent authority. A patient *partner*, even co-creator, is their own expert: of their voice, their body, their experience. For me, the best description of how partnership links to the compassion we want to cultivate resonates in the teachings of the Buddhist scholar Pema Chödrön. She states that "Compassion is not a relationship between the healer and the wounded. It's a relationship between equals."

Of course, an individual cannot represent a population, just as a generalization may not represent an individual. Still, we can deepen our approach to designing simulations, even by a simple act of asking: what would you like your future _____ (insert role here: doctor, nurse, pharmacist, social worker, dentist, first responder, physical therapist, and the list goes on) to learn, know, understand and be able to do? Insight and perspective from the very people who receive our learners' care offer vast potential for enrichment to all forms of patient simulation. Far from encroaching on standardized patients' professional skills or undermining educators and faculty expertise, partnering adds vital value. It's about amplifying patients' realities; it's about equity and inclusion.

Taking a cue from the language of improvisational theater, we may use a "yes, and" approach to seek and dive into boundary encounters, to adventurously engage as communities of practice. And in so doing, we can activate both the richness of distinctions and expanded fluency. After all, "patients" are really not "they" but "we," roses with different names.

SP Methodology—Reaching Across Professions

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The first time I heard the term "SP" was in 2001, when I was invited to participate in an OSCE. I did not understand the purpose of simulation, had no history of acting, and was just looking for part-time work. I was trained to discuss "my"

symptoms of chlamydia – 30 times in 1 day. I was young and inexperienced, and I remember wondering what I had signed up for, and how I could prevent my red-faced embarrassment at talking with strangers about things that weren't actually happening to me. At the time I didn't realize how many roles like this I would portray, develop, and train.

In 2005 I started to work full-time in simulation-based education, coordinating OSCEs and developing station content for the University of British Columbia. In 2010 I moved across the country and started as a Simulated Patient Educator with Dalhousie University. I also work with national licensing bodies, both in station development and training. Similar to Sydney Smee, my post-graduate education followed my "accidental career" trajectory, to gain fundamental knowledge in education, curricular design, and research to be able to support the growth of SP methodology. I have been excited to help simulation progress from an interesting "add-on" to an integral and essential part of health profession education.

SPs provide the opportunity to assess learners' clinical and communication skills, and also provide essential practice. And, as discussed in this text, simulation provides powerful learning moments. What has excited me about the trajectory of SP methodology over the past 14 years is its reach across professions, allowing SPs to provide learners with practical experience in a safe environment. At my university, we have expanded our work from medicine and nursing to include physiotherapy, occupational therapy, pharmacy, social work, speech language pathology, radiological technology, and dietetics. Many projects I work on are interprofessional, combining natural teams of learners who might interact with the same patient, allowing learners to expand their knowledge and practice from the clinical problem to how to work in teams, and how to learn from, with, and about one another.

Because simulation has proven to be an effective learning and assessment method, the future is moving toward allowing simulation to replace some clinical fieldwork hours in professions such as nursing and occupational therapy [17, 18]. Simulation should never replace direct patient contact, but it can provide specific learning opportunities at a time that makes sense in the curriculum, and ensures learners encounter content they may not during a clinical placement, ensuring exposure to all components of the curriculum. Simulation allows the focus to be on learning and practice, rather than primarily on patient care.

With the exciting expansion of SP methodology comes an increase in work – and by extension, finding time for professional development [19]. However, in our emerging field professional development is key, and can occur through formal, non-formal, and informal education, reflecting and evaluating on our own and others' teaching, innovating in the field, and sharing experiences with others. It might include conducting research to advance our field. It is an exciting

time to be involved in SP education, and to realize for many of us it has become a fulfilling, if unintended, career.

2075: An SPE Odyssey

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It's the mid 1970s. The average cost of a new house is ~$40 K USD, The Beatles had just disbanded but Bruce Springsteen is there to comfort us with "Born to Run", Jaws is released, Gerald Ford is in the White House, and Standardized Patient forefather Dr. Howard Barrows is repeatedly told by the medical education establishment: "*you cannot replace real patient experiences with SPs to teach students*".

During this time, I was one of Dr. Howard Barrows Simulated Patients. I accompanied Howard to multiple medical education conferences to introduce an "innovative teaching tool": "The Simulated Patient". At one conference in particular, I was put in a meeting room that was configured to look like a clinical exam room, in which conference participants were able to interact with me in-role. At the end of the day, I gathered my things and exited the room. I hadn't noticed before, but outside the room were two signs: "Exhibit" and underneath it, "Simulated Patient". Obviously, the meeting planners had no idea what to do with this unknown teaching tool. By the conclusion of the conference, I heard firsthand several comments during the debrief reiterating the concern about "*replacing real patient experiences with SPs*."

Well into the 1980s, Howard continued to explain to academia the educational value of the SP and recapitulated that this 'technique' was never intended to replace direct experience with clinical patients. When the torch was passed to me and presenting the SP 'techniques' became one of my responsibilities, I used the following visual representation when persuading faculty and leadership towards acceptance and adoption. A bridge; an SP is a bridge. The process of learning for students which began in the classroom and texts was "bridged" by an SP before seeing clinical patients.

Fast forward to the present. The SP methodology is an accepted simulation modality, with its own SOBPs, and it continues to grow. SPEs run successful programs with increasing demands on multitudinous levels. Today, SPEs are faced with several dichotomies of what must be done and what is expected: manage quantity, but maintain quality; use the educational tools proven to work, but innovate with new tools for the generation of new learners; meet daily demands

but engage in continual long-term professional development (bonus points for additional degrees or research); be an independent contributor, but lead and manage a team; simultaneously do the job you have today, but work for the job you want tomorrow (bonus points for dedicating efforts to your own public relations campaign and management of institutional politics). This isn't Venus with its 5000+ hour days, we all get the standard-issue 24-hour Earth day. What does the future of SP Methodology hold, and how do SPEs manage these dichotomies for tomorrow… which is now in 12 hours 34 minutes and 15 seconds?

It's again the mid-70s, but 2075. Twenty-first century automation has replaced the first wave of human professions. The reality we have accepted is that we are simply subpar at executing certain tasks, just as humankind accepted in 1946 that we were subpar at arithmetic calculations when the first general calculating computer, the Electronic Numerical Integrator And Computer (ENIAC) was introduced. However, not all human professions have disappeared as some jobs are technologically more difficult to automate, while others are economically less viable to be automatic. A human profession that remains – healthcare providers (HCPs). But, not in the capacity healthcare providers exist today. The diagnostic abilities of healthcare providers will matter less and less in 50 years. HPCs will do a serious disservice to their patient if they're using their human brains as their <u>primary</u> tool to diagnose patients.

In the future, computer systems will have access, not just to a small subset of patients with that particular symptom, but millions of patients and analyzed within microseconds. These computer systems will be statistically better on all possible metrics, whether we're talking about false positives or outright mistakes. In almost∗ every possible sense, computer systems will be better than what any single human is capable of achieving. Clinical reasoning remains a relatively important skill to have, but in the future, our diagnostic abilities in clinical reasoning will be degraded to human puzzle solving abilities. For example, a computer can solve the New York Times crossword better and more quickly than we can because it can process faster and has access to all the dictionaries.

Did you catch that asterisk in the above paragraph? In *almost* every possible sense. The HCPs critical role in healthcare will remain because humans like to be comforted by humans. We will see that the ability to communicate with patients is going to become a more and more valuable skill of the healthcare provider, and not less valuable because its relative importance is going to increase as a result of these trends. *"The doctor of the future will give no medicine but will interest his patient in the care of the human frame, in diet and in the cause and prevention of disease."* Thomas Edison, 1903 [20]. Healthcare providers of 2075 will be far better versed in the art of communication whilst consulting a computer system to confirm a diagnosis thereby increasing the correctness and accuracy of the diagnosis.

What does the future of SP Methodology hold? It's time we start building another bridge. A bridge that SPEs navigate into the future, a bridge that reduces the distance between the aforementioned dichotomies, a bridge that connects us to technology. But how do we build this bridge? How do we approach even conceptualizing its architecture? Where do we start? How do we construct a bridge for the future with current resources?

We believe the engineering and structure of this new bridge should foundationally include the following considerations and action-items:

1. <u>Enlist the resources</u> available today: technology in the form of artificial intelligence (AI), neural networks, virtual reality and/or augmented reality. We start with embracing AI technology while the maturation of the SP Methodology (human simulations) continues to progress. SPEs must contribute *today* to the building and growth of these technologies and acknowledge how they augment human simulation.
2. <u>Work backwards</u> when teaching tomorrow's student. If tomorrow's healthcare provider will make better decisions supported by technology (AI & machine learning), through collaborative consultation (telemedicine), with information at their fingertips (wearable computing), then what steps should we, SPEs be taking today for who they will become tomorrow?
   (a) <u>Pivot</u> towards education that takes into account who the healthcare provider of the future *is, and what roles, tasks, and demands they will face*.
   (a) <u>Evolve</u> our educational delivery tools to meet current Gen Z and future generation learner demands and tasks, while keeping the focus on the patient-centered interaction and relationships at the forefront. The SPE's role in combining AI and SP simulation activities becomes critical to engaging the learner in dynamic dimensional spaces [21].
3. <u>Expand our roles</u> as educators through the *use* of technology (not fighting it) and recognize how AI technology can address and relieve some of the listed above, present dichotomies such as volume and logistics. Additionally, by incorporating technology into our skill-sets we promote continued professional development and further cementing our expertise and value in simulation centers.
4. <u>Ask ourselves</u>, how do we begin updating the SP methodology to formally include artificially intelligent virtual patients?
   (a) Early Adoption. As eager adopters of technology in our consumer lives, we have come to expect a breakneck speed in terms of innovation, but to manufacture that speed we must also recognize that something has

to give. Terry Heick [22] succinctly states, "while sometimes the slow path to long-term usability, updates from developers represent useful compromise. New ideas can be financially supported, users can have their evolving needs responded to over the life of a product, and developers can stand to risk a bit more by leveraging the concept of iteration, resulting in forward-thinking and true innovation."

(b) Ownership. Planting a flag and claiming as 'ours' has inherent risks; however, it generally allows more active control with a direct, tighter feedback loop. Often the exchange for being an early adopter or 'Lighthouse User' (also known as users exposed to the problems, risks, and annoyances common to early-stage technology deployment) is that Lighthouse Users are often given more attentive assistance and support, while providing guidance on the direction of the technology. SPEs can actively mold developers' perceptions, rather than being forced to accept 'as is' because an outsider to the methodology thought it would be the best vision for us.

(c) Promotion. As continuous promoters of interactive communication activities in the curriculum, scaffolding learners experience between AI and SPs can meet different learning objectives and budget challenges. For example, by maximizing AI for foundational skills, SPs with the comparatively more advanced skill set would be available for more in-depth interactions.

(d) Uphold & Set Standards. We have developed Standards of Best Practices when working with SPs. The first Domain, Safe Work Practices, addresses SP safety. AI technology can address some of the concerns with SP safety, for example SP cognitive load. Similarly, we should have input in developing standards of best practices for the AI technology within the SP Methodology.

The remaining, lingering, unavoidable question yet to be addressed comes, once again, from our very human fear of the unknown: is AI technology a threat to SP Methodology? Sound familiar? You're not alone [23]. So, as you think of AI technology, we leave you with this thought: you <u>cannot</u> replace *standardized patient* experiences with technology to teach students; just as "you <u>cannot</u> replace real patient experiences with SPs to teach students".

Communication-based technology can only extend and complement SPs when developed and integrated appropriately. This technology needs SPEs to help develop authentic and realistic dialogue, and reactions. In reality, it's not a far leap from training SPs. With this early blueprint to bridge the past 50 years with the next 50 years, the torch (and responsibility) is being passed to you, dear Reader.

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SP Methodology Reimagined: Human Simulation Online

18

Lou Clark, Anne Woll, and Joseph M. Miller

Introduction

This chapter was not supposed to be the last chapter of this book. The original intention was to conclude the book with the previous chapter in which 14 SP Educators (SPEs) put forth their ideas to imagine what the future of our profession may entail. The tangible suggestions for professional growth in our field detailed in the previous chapter include: To think expansively, beyond individual SP encounters with learners to apply our best practices to systems-based problems; saying "yes!" to growth while being mindful of our well-being; ways to collaborate with our technical simulation counterparts to ensure that human simulation methodology is skillfully partnered with virtual modalities and augmented reality; to advance SP Methodology as a means of advocating for social justice; and to continue to promote socially sensitive human interaction, connection, and engagement to improve health and society. Little did we know how quickly these tangible suggestions would become key tenants of a new reality. We received the proofs of this book in March 2020 but knew our work was not done.

On March 11, 2020, the Coronavirus also known as COVID-19 was declared a global pandemic [1]. Citizens of countries around the world were directed to shelter-in-place as increasing numbers of people became infected and died including frontline healthcare workers. At the time of the writing of this chapter nearly 180,000 Americans and more than 800,000 people worldwide died [2]. During this time employees who were fortunate to be able to work remotely were directed to do so from home, including many simulation professionals working for academic institutions. Most face-to-face SP activities stopped and SPEs across the United States and the world needed to pivot and mobilize as quickly as possible to bring simulation activities with SPs online to keep learners progressing while safely implementing operations for all stakeholders including SPs. Safety is a guiding principle in Domain 1 of the ASPE Standards of Best Practices [3] and is paramount in discussing SP work during this pandemic. Given that SPs are typically on-call temporary workers—who are sometimes classified as employees though not always as many institutions classify SPs as independent contractors—prioritizing their on-the-job safety was of the utmost importance and the ethical choice. In the U.S. this is due to the fact that there is not a national healthcare plan for all and many institutions that hire SPs do not provide a guarantee of health coverage should they become injured or ill as a result of their work, so working with SPs online in the COVID-19 response was critical to their safety.

Components in this chapter are intended to

1. Equip SPEs with the knowledge and practical tools necessary to train and implement events with SPs in fully online platforms. Doing this successfully requires both a philosophical as well as logistical shift from faculty and SPEs. Specifically, SPEs and their stakeholders must work collaboratively and intentionally to decide which events may best be implemented online and which, out of necessity such as a graduation or certification requirement, must remain as on-site events.
2. Discuss the necessity for the collaborative design of online SP curriculum,
3. Provide a brief review of the relevant existing literature on telehealth and telesimulation in which we situate our definition of human simulation online,
4. Share the transcription from the presentation "Zooming with SPs in COVID-19 Response: *Using Zoom to train Standardized Patients (SPs) and implement formative Objective Structured Clinical Examination (OSCE's) with health science students*" presented by the authors over Zoom on March 27, 2020 which launched the M

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Simulation webinar series, Healthcare Simulation Online – COVID-19 Response in 2020 & Beyond! [4].

Highlight interviews with SPEs around the nation who are successfully implementing SP events online

5. Identify the ASPE Standards of Best Practices in Domain 1 on safety.

We conclude with a call to action for further collaboration in support of our community of practice and continued profession-wide success.

Human Simulation Online

Partnering with SPs utilizing online platforms is not a new phenomenon. Some SPEs have, for well over a decade, been exploring the possibilities of training and implementing human simulation events online [5, 6]. Early efforts concluded that online training tools are useful for human simulation implementation but still an emerging field [7]. The concept of virtual (digital) patients has gained popularity over the past decade to further standardize clinical scenarios [8, 9]. For the purposes of this chapter we use the term *virtual* patient for digital avatars that represent patients in a computer- based and programed scenario. A virtual patient is distinctly different from the *online* SP. The online SP is a live-human interacting with learners and the computer is the conduit/platform/tool used to communicate.

Therefore, we offer the following as a clarifying definition of *human simulation online* as simulation designed to teach or assess learning objectives via any human simulation/SP learning activity that may be effectively planned and implemented *synchronously* (live) in online platforms, (e.g. Zoom, Cisco WebEx or other video and audio conferencing software-based programs). A key part of this definition of *human simulation online* is that it is occurring *synchronously* versus virtual patients which are designed for *asynchronous* use. It is important to note that the Human Simulation Continuum Model and SP training methodology as discussed throughout this book may be applied in training and implementing *human simulation online* with SPs.

At this point it is also essential to distinguish between the terms *human simulation online*, *telemedicine* and *telehealth*. *Human simulation online* is a modality that may be utilized to teach or assess learning objectives pertaining to *telemedicine* and/or *telehealth*. To clarify the difference between the latter two terms which may inadvertently be conflated or used synonymously we borrow these definitions: "Telemedicine (the use of technologies to remotely diagnose, monitor, and treat patients) and telehealth (the application of technologies to help patients manage their own illnesses through improved self-care and access to education and support systems) are being applied and combined to create new ways to deliver care. When properly imple-

mented, the broad adoption of connected health has the potential to extend care across populations of both acute and chronically ill patients and help achieve the important policy goals of improving access to high-quality and efficient health care" [10].Telemedicine holds potential to mitigate clinical shortages [11] and recent advances in working with SPs to meet telemedicine learning objectives include a project with nurse practitioners [12]. SPEs have skillfully worked with SPs advance telehealth training opportunities for interprofessional education in diabetes to nutrition and dietetics and exercise physiology students [13], and in educating nurses in telehealth skills [14–17]. As the terms *telemedicine* and *telehealth* are often conflated or inadvertently used synonymously, it is key to complete understanding of the remainder of this chapter to define each concept and to distinguish them from *human simulation online*. Additionally, and finally, the term *telesimulation* must be considered in relation to *human simulation online*.

Telesimulation is defined "…as a process by which telecommunication and simulation resources are utilized to provide education, training, and/or assessment to learners at an off-site location. Off-site location refers to a distant site that would preclude the education, training, and/or assessment without the use of telecommunication resources. This unifying definition encompasses all areas where telecommunication and simulation resources have been used in the past, while simultaneously allowing for its growth in the field of medical education, inclusive of all the domains of learning" [18]. While *telesimulation* may include human simulation—this modality does not need the presence of a live, human being in synchronous time interacting with learners to qualify as *telesimulation*. *Human simulation online* requires that a human participant be present interacting and connecting with learners synchronously. Therefore, *human simulation online* is the best term to use in describing the innovations outlined in the remainder of this chapter.

Zooming with SPs

On March 20, 2020 our M Simulation team at the University of Minnesota successfully held its first fully online simulation education event with 15 graduate nursing students who participated in standardized patient (SP) encounters. Since that time and at the time of this writing we have implemented more than 1000 contact hours with more than 700 learners operating at approximately 50% capacity for regularly scheduled programming from March 20, 2020 through May 25, 2020. We anticipate this capacity will grow and have not turned away stakeholders seeking to implement online simulation.

In addition to supporting UMN learners and faculty, M Simulation hosted the live webinar "Zooming with SPs" [9] on March 27, 2020 with 300 participants in attendance to

train other healthcare simulation professionals to implement these events in order to continue their operations [10]. To date this recorded presentation has been accessed more than 1000 times from over 35 countries around the world, (*the recording is available on our M Simulation website*) [4, 19].

Disclosure

We have nothing to disclose in relation to any products, including Zoom, which are mentioned in this chapter. There are many online platforms that may be used for this work (e.g. Cisco WebEx, GoTo Meeting, Google Hangouts Meet, join.me, BlueJeans, Cisco Jabber, TeamViewer, and Adobe Connect) but for the purposes of this chapter section we will refer to our work with Zoom as it is the platform utilized by our institution. As with all the SP training methods and knowledge that has come before this time, our work requires the ability to sensitively interact with our colleagues while incorporating new technology.

Zooming with SPs in the COVID-19 Response Presentation Transcript from March 27, 2020

Lou: I'm Lou Clark, Executive Director of M Simulation at the University of Minnesota. And today we welcome you to this presentation,: *Zooming with SPs in COVID 19 Response: Using Zoom to train SP's and implement formative OSCE's with health science students*.

  (Next slide.)

Lou: We have nothing disclose. I think it is incredibly important to say, we have absolutely no stake in Zoom as a company. Like many of you we are just using it to try to make the events happen. None of us have a relationship with Zoom.

  (Next slide.)

Lou: Today, you the audience, it is so important you're here and we're so happy you're here. As I've mentioned, and if some of you are just signing on, please sign into the chat so we can provide resources and follow up with you. If you could please include your name, your institution, your email address. We'll get back to you and disseminate. Please keep your video and audio muted during this presentation. It will be easier because we have many people now. It will be easier for you all to focus and it'll keep the noise and the sound of distraction down. We ask you to please hold questions until the end and then type them into the chat function.

  (Next slide, please.)

Lou: I wanted to share this is our entire M Simulation team, *(referring to a slide with the team roster)*. For those of you who have smaller programs, I don't want you to get a lump in your throat and say, "Oh my gosh, how can we do that? We do not have this size of a team." I do want to share that it was important to put the whole team up here to acknowledge them because Joe and Anne and I are representing the work of many, many people today on our team who've done a wonderful job coming together and mobilizing this effort in less than two weeks. It's important for you to know that at least five of the people up here, are part-time, very, very part-time workers. But again, thank you to our team.

  (Next slide.)

Lou: We also want to acknowledge that we have had tremendous partners in leadership and our communication team, on our faculty, one of our wonderful doctoral students in the nursing practice program has agreed for you all to see her video today. We have a Simulation Oversight Committee that provides guidance for us representing the health professions across the University of Minnesota. And we want to thank them all. We could not be doing this and mobilizing this as quickly as possible without the support of so many people. And I think this speaks to the fact that each of you at your institution, please reach out to your leaders. Reach out to your constituents if you're not already and get them involved, let them help you with this effort.

  (Next slide, please.)

Lou: With that, I want to introduce what we're up to. So, we are offering a session today about Zoom that the session is designed to be the first in a series. And the series is geared towards sharing information with our community about how to utilize online platforms to train and implement and keep our events going.

  Though it's in response to COVID 19, but the idea and the title of the series of healthcare simulation online—COVID 19 response in 2020 and *beyond*. I think the beyond part is so important because we will get beyond this, and when we do we know already, many of us, all of us probably know that what's happening now and how we're being called on to adapt our learning to educate our healthcare providers and workforce is so critical in this time, but it's going to change how we do it in the future. So, we need to mobilize. We need to see that those opportunities are there and they're going to be there when this time passes, and it will.

(Next slide, please.)

Lou: So, with that, today we are here to give you a session all about Zoom. We know that that's what people need right now. So, we want to share this work. Zoom is not the only platform on the market. There are many others listed there, *(on the slide).* But we hope, and we think that the lessons we are going to share with you today will be applicable to some of those other platforms. It is also very important to say that our staff had very limited experience with Zoom until two weeks ago. Two weeks ago, and you can see the picture on the slide *(picture of the M Simulation staff meeting on Zoom for one of the first times)...* We were all looking at each other saying "How do we do that?" And, even, "Can we do this?" And I think this is such a crucial time to say to you, you can and don't be afraid to try it. Because if you can try it, you will get there. This was just two weeks ago. And so, with that, I'm going to ask for help from my *[Zoom]* driver. We're going to give you a poll and we're going to give you about 30 seconds to complete that poll. And the poll is looking at how comfortable do you feel using Zoom. So, go ahead folks, and let's hear what you think. We'll give you just another ten seconds or so. Got a great response going. Okay, let's close that poll, and we'll share our results. Right now, we have 300 people on this call. And you can see the result here. Interesting, right? We have about 40%, either somewhat or not comfortable at all. We have 38% of you who are mostly comfortable, but you signed in any way to see what we're up to. 19% are very comfortable. It is great to know where our audience is. So, thank you for that Joe… More to think about briefly before we get into the nitty gritty. Our session covers adaptation and implementation of our face to face formative OSCE, to a fully online Zoom platform. And we're going to highlight a small-scale event we did for 15 graduate nursing students and start there and show how we scaled up to a much larger event with over 100 students in veterinary medicine. We're going to include aspects around using a narrative style to work through the physical exam findings, which we did. But we do want to be clear that this session did not include training physical exam maneuvers and psychomotor skills at home. So just to be clear about that, and again, we're recording this session…

(Next slide)

Lou: Today we are going to cover these session objectives:

- Understand logistics needed to implement formative OSCEs in Zoom
- Learn skills to effectively train SPs online in Zoom
- Gain tips for meaningful debriefing with faculty and students in Zoom

(Next slide)

Anne: Alright, so we are going to start talking about our first project. And we're focusing a lot on that because we ran this just last week, *[on March 20, 2020]*, and it was smaller in scale. But we learned the most so far from this project because of where we started and how quickly we did it. This was an OSCE, a formative OSCE originally scheduled for last Friday *[March 13, 2020]* to be on-site for, as Lou mentioned, our 15 second year nursing students in the graduate nursing program. And that design had been modeled on how we'd previously run the project last year. We're anticipating three hours onsite using four SPs who would each portray the same case and abdominal pain case for history and physical exam. We were giving 20 minutes for the encounter, five minutes of feedback with the SP and, of course, an orientation and debriefing. That was all well and good until we got the announcement to move home with all of our SP's going to their locations and students as well, which gave us one week of lead time to convert this. So, one of our initial strategies in response to that was to reach out to faculty and start to discuss "What are some of the options?". "How can we continue to meet some of these learning objectives via Zoom?" The communication aspect of this type of encounter seemed well-suited to use the telehealth *[now named and specified as Human Simulation Online in this chapter]* format. And where we focused a little more of our conversation was, what do we do about physical exam? How are we going to meet some of those learning objectives?

Anne: And where we landed was embracing essentially a verbal findings approach, something very similar to a findings card that standardized patients might use on-site and asking students to narrate the physical exam. And we'll talk a little bit more about this process as the presentation continues. But the important piece from our perspective in designing this was that, *[the SPs narrating physical exam findings]* it still allowed students to practice decision-making skills. So, thinking about which maneuvers they wanted to perform. Interpreting the results from those maneuvers and developing a differential and plan. The original schedule looked much like the adapted schedule with the difference being that the original locations

were moved into Zoom virtual *[online]* locations within the meeting. And as you'll see, we have the pre-briefing taking place in a main meeting *[room]*, which is essentially where we are now in a Zoom meeting. And then we had planned to use breakout rooms. This still allow learners to each have an individual encounter with the SP and to maintain that same originally planned timeframe. The other first response we had in managing this transition was to reach out to our SPs and understand what resources they had at home, what experiences they brought from using conferencing tools previously, and what level of confidence they had. And I think it's interesting, I was pleasantly encouraged that 74.5% of the people responding had a device and what they thought was a reliable internet connection. That give us a lot of hope for what we might be able to do in the scale we could do it. And many of them, 55%, had some experience using online platforms. A few more had significant experience. Only a quarter didn't have any experience with online video conferencing tools. With all of these different variables, these are just a couple of the questions we surveyed. I thought it was telling that they still felt very confident. 62% thought they could be confident working as an SP via Zoom from their home. This was really encouraging to know that's where we were starting from and what the interest was…from our standardized patient population. I'm going to turn it to Joe to talk about case materials.

Joe: So, yes, thanks. Anne, as she mentioned before, after having conversations with our clients and really thinking about the recalibration of this project…one of the next steps was really how do we adapt the case materials? You can see on the right-hand side; I've put the example of the actual verbal cueing sheet for the standardized patients for this very first project in collaboration with the faculty on this. This document was created to give instructions for the standardized patients on when to give these findings. And also, just generally thinking about and anticipating what sort of things the learner would be expected to do or would be thinking about for this particular case. So, I will let everyone see those for a quick second, *[referencing the slide]*. Another thing that came to mind as we were talking with faculty on our team is…what do we do about COVID 19 *[in relation to the simulated scenario]*? When you're thinking about asking the patient about their stress level, that's probably heightened with everything that's going on right now, thinking about—the work-life balance, the social support system, a lot of those things really add in, are going to have different consider-

ations and thinking about the current climate that we live in. So, a choice was made to appreciate and acknowledge what's happening right now *[with COVID-19]*. Another choice could have been to ask the learners to suspend disbelief and really engage with the case the way that it was written. But we didn't factor in and account for those considerations in the case details to think about some of the things that might impact the portrayal of the character. We also thought about telehealth *[now Human Simulation Online as noted in this chapter]* versus the original context for this particular simulation, it really felt like it was adaptable to that telehealth *[now Human Simulation Online as noted in this chapter]* format. We were able to have that focused history as well. The physical exam being narrated, allowed the learner to critically think about the clinical decision-making that they would be making or asking in the room with the patient. The next word here that you can see on the slide, *[word on slide is Organomegaly]* is a very challenging word to say. And our standardized patients definitely had some issues with that. So one of the things we've learned in adapting case materials after the fact was that you need to make sure that the terminologies in lay terms as much as possible so that the learners and the patients have an easy and efficient experience. And one of the other things that became really critical is also making sure that we sent a links with Zoom tutorial videos with the case materials that really helped us with the onboarding and making sure patients at least had some resource to start navigating the technology and knowing that we need to be there to partner with them and help them in the training process. Anne that's a great segue into my—

(Next slide).

Joe *(continuing)*:

So, for SP training and coaching, a lot of what we focused on here was about the same as what we had done before. We followed our typical agenda and really thought about considerations that would be impactful for the standardized patients. We did an introduction to Zoom. Really a lot of that was trouble-shooting, facilitating discussion, and as you can see, navigating the new normal, this ended up taking about 40 to 45 minutes of that first session to really help individuals figure out exactly what they needed to know about the platform. One of the challenges with Zoom that we've figured out so far is that depending on the device you use or the platform, the Zoom features are different. And so, I quickly realized that you *[as the SP Educator]* had to resist the urge to say at the bottom of your screen,

at the top of your screen, go to the left or to the right, because that's different across platforms. And so, think about that as you're thinking about the training process. Because the standardized patients will really need your guidance to help *[them]* navigate the technology. One of the things that we decided to do was we also decided to record all of the SP training sessions because we had that functionality with Zoom. Our standard protocol is not to record all of our sessions. We needed to consent our standardized patients at the very beginning and make everyone aware, as well as the staff and faculty that were joining those training sessions. As a positive. we now have recorded all these training sessions moving forward, which is going to be really critical in helping with any one-off sessions or any retraining. We asked the standardized patients to minimize distractions. I think some of you might have just heard my dog bark. So, we asked them to try to make sure their pets were elsewhere and do the best that they could really have a focused environment that would be conducive to learning. And really partnering with us as well as thinking about that for the events with the students and making sure that the student really has their full focus. We kept it simple and consistent. We tried to make sure that we were following our typical protocol and our format that we did. Then really, we found that it was critical to use demonstration and role-play via technology. The use of video is something that was accessible to us. What we really wanted to make sure of, was that we demonstrated for the patients first and then also had them do role-play with the technology. So, they got the flow and the cadence of speaking through technology and really not speaking over each other.

(Next slide)

Lou: So, I'm going to talk about SP training observations. I was fly on the wall for this training, enjoying it, seeing how it was going. But before I do that, we had a message come in over the wire and I'm going to reach out to my technical lead here, Joe. And this is happening in real time, we're going to see if we can work on an adjustment. We have heard from our Associate Vice President Carolyn Porta that we are capped at 300 participants. And is there any way to manage that, Joe, I'm going to throw that over to you.

Joe: Just saw that.

Lou: I'll keep going on these observations. If you have colleagues who are trying to get in, this is us trying to troubleshoot, Zoom in real time. I thought that be kind of fun to throw out there to the group and I'm going to keep going though SP training observations…So, activity in an online format actually required four SPs rather than seven over two days. So, seven were originally scheduled but only four to do it online, were required. So, I'm going to come back around to that, but I was thinking about that right…in a Director role—as cost. I'm going to say more about that in a minute. The first hour of a two-hour training session wound up being spent on technology in relation to logistics. And this was our first time. So, I know this is going to get more streamlined as we go along, but it was something to consider. So, when I thought about the fact that four SPs were hired rather than seven. In your initial implementation, it would probably be a good idea to allow for a longer training time. I think we could have really benefited from a three-hour SP training time that first time through. Something I really liked that Joe did in the training was to highlight the difference between simply regurgitating the details in the case versus impromptu delivery. Now, this is something that we SP Educators, we do this routinely for face to face cases but I think in an online setting it sort of had a little bit different implication. You see right here, *[pointing at her face on screen in Zoom]* we're focused on our faces, so much is about the face and the expression. It's about pacing. So, all those things really, I think, are even heightened when you're focused on the face. We had faculty; we want to thank our faculty who Zoomed in for the training we've done so far. And we're thinking about faculty Zooming into these training routinely when we're hopefully back in our centers and up and running and doing face -to- face training. Why not offer the option for faculty to Zoom in? Could be useful and convenient for them. Could have implications for better faculty availability and attendance at our trainings. We also, this was kind of a fun moment in the training, talked about how much of the body each SP should show, and I loved it. I remember Jeremy, one of our part-time trainers, got up and he was moving his computer around. My impulse on that was let's not move our computers around, you know, like moving stuff and stuff getting unplugged. If that were me, I would trip myself and that would be a hazard! So, we realized there

was no need to show anything but the face and upper body and we could narrate physical exam findings. So that's what we did. I observed that sharing documents on the screen like we're doing now, for me, it's focused the SPs in a different way. I started out as an SP trainer and any of us who've done that over time, it's like any teaching, any group, right—people are hopefully mostly engaged, but there are times where you'll see the occasional person check out a little bit or they're texting or doing whatever. And so, this meant I saw everybody's faces the whole time. They were very zoned in and focused on what we're doing. So, I thought that was interesting. And then finally an idea for the future, and I alluded to this earlier. This online SP training could be convenient. It could be a cost and time saving measure for in-person formative events, particularly those that are completely history based, or interview based or could be adapted to what we did narrating those physical exam findings.

(Next slide.)

Lou: I also observed the SPs and their feedback at the end of their training. So, all four had something to say. The first one talked about the opportunities that this new online training format presented, which I thought was terrific. And how they thought, wow, this is probably reflective of what's happening in health care and what's needed in healthcare. I thought that was so insightful from one of our SPs. Then another one mentioned the concern that online delivery of SP performance is authentic so that it's useful. She wanted to make sure her portrayal was authentic. We hear that in face-to-face settings, and we have evidence supporting that *[the effective adaptation of this in the online setting]* later in the presentation. We had another one *[SP]* talk about how narrating the physical exam findings is totally new. So, they wanted to make sure it didn't sound rehearsed or sort of scripted as opposed to handing a physical exam findings card. And I thought that was particularly interesting because I think we, you know, we all know it. You've got to suspend disbelief and break that fiction contract when you hand that card out anyway, so I thought that was something kind of interesting. And then finally, our last one *[SP]* discussed that she wasn't as challenged by the portrayal aspect of this, that she really was concerned that she wanted to be able to offer meaningful verbal feedback. And I thought that was interesting as well because that might come up in

a face-to-face training. So that's what the SP's had to say.

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Anne: Thanks, Lou. I think it's important to re-emphasize the piece that you mentioned at the start, which is our staff had very limited experience with Zoom prior to a week before this project. And so we tackled this on-boarding experience as a team because we knew we needed to figure it out together very early on. In looking at Zoom, we had started to conceptualize using the breakout rooms as exam rooms, but we really didn't know how to do that. And so we tackled that by scheduling two 60 to 90 minutes Zoom meetings where seven of our staff members simply practiced with the settings and flow, worked closer to moving people through the Zoom space like we would for the actual project. And so, it was very much a collaborative discovery approach. Most of our energies were focused on understanding the nuances of breakout rooms and of the host controls because that's where we felt like we had the most to learn about making the flow work as we intended. What we quickly conceptualized in terms of a framework that would give us some of the same features in this virtual space as we had relied on in our physical space, was using the main session. Again, we're all in the main session right now in Zoom, that's where the learner pre-briefing would happen. And then we knew we needed to schedule four breakout rooms within the meeting. One for each of the SPs playing the abdominal pain case on that Friday. Another breakout room would be where we would move the learners to debriefing. And then Joe had a really great idea that we needed a space as a team to be able to talk openly, to troubleshoot on the spot. Because this was our first time doing this, we weren't sure what we were going to need to solve. And so, creating an additional breakout room for the M simulation staff—our team—to openly dialogue has served us really well. Additional things we discovered, we identified essential settings for learners to replicate. Essentially what would be a telehealth screen. Right now, we're seeing a lot of screens or we have the potential to see a lot of screens on Zoom. We felt like that could be a real distraction. And we wanted our staff to be able to be in these breakout rooms where the encounters were taking place without taking up real estate on the learner screen or distracting their attention or making them feel extra observed. We also figured out a waiting room, which you all got to experience as part of this. That gives the host of Zoom some control over who enters that meeting space, or in

our case, the orientation, and at what point. That's particularly important for rolling orientations, or when you have waves of people coming, or maybe [when] you're addressing content for a certain audience that isn't relevant for the next audience coming through. We also have some specific limitations to what Zoom will do at our institution because of HIPAA requirements and how we *[M Simulation]* are categorized as part of health sciences. So, for example, we can't save directly to the Cloud. So, we spent some time in those early days looking at how are we going to do some work arounds to recording how are we going to work within our context. So, you may have some solves for some of how we've created strategies because you don't have these sorts of limitations. So, I just preview that for you. We came up with preliminary roles. And we really approached this from the standpoint of let's over resource this from the beginning because this is new. We don't want to fail. We're a group that wants this to be perfect. We want this to be seamless. We want people to have a good experience. So, let's make sure we feel supported by each other and doing the best we can for this. So, the Zoom host is who we've been calling the driver, Joe is driving today. He's admitting people into the main session in our simulations, the driver also moves individuals into and in-between breakout rooms. They're managing the timing. So, we have a different strategy in our center for that. Host will manage timing. They can create broadcast banner messages that get sent out and appear as text in the breakout rooms. That's a helpful strategy in timing. And they're also providing technical assistance and troubleshooting. So, we put some of our most tech savvy people in this role to get started. We also had one individual facilitating the pre-briefing and debriefing, which freed up that individual to observe the encounters. Because we did a pre-briefing at the very, beginning of the simulation and at the very end, after all the cohorts had been through. We also felt like we wanted a staff member in each of the breakout rooms to help make audible those text banner messages. So, individuals heard the timing announcements. And we wanted them to be there to provide technical troubleshooting. So, we assigned them as a co-host role within Zoom which allowed them enhanced functionality. And then, as we always do with our simulations where we're working with standardized patients, we have somebody in the role of SP lead who's facilitating the SP pre-briefing and debriefing, providing oversight for their performance. Generally making sure if there's

something happening with SPs we have a point person who can communicate and support them. So those were our preliminary roles. We thought about the 30 minutes prior to the start of the learner pre-briefing a little bit differently. We wanted to make sure everybody had established connectivity. So, all of our staff on the projects Zoomed in 30 minutes before. That also gave us an opportunity to use a huddle, much like we do on site when we're all moving quickly between many activities and are managing a lot of details. It's especially important in a new situation with all these new features to review, roles and flow make sure, everybody's clear on what we're doing. We had the SPs Zoom into that same session 15 minutes before the learners. That was our way to get them through in advance of the learners, make sure they had that connection. And we moved them almost directly into the breakout room where SP lead could work on pre-briefing tending to any questions, reviewing case details with them. And then we worked on admitting the learners into the waiting room five minutes prior to the orientation, just as we did today, so that they had an opportunity to start getting their technology configured for their needs. You got to experience a Zoom poll. It's the same Zoom poll we used with learners when they entered the pre-briefing space, the main meeting in Zoom. That gave us a quick sense of where people were at with their perceived comfort. So, we could customize the pre-briefing, use narrated slides for PowerPoint. It gave the facilitator a chance to think about going a little more slowly over some of the technical information or maybe going a little more quickly and waiting for questions to come via chat. We thought about many of our best practices in pre-briefing for simulation, but we wanted to make sure, particularly for this setting, that all staff members were visible in this pre-brief and that their video was on at the start so we could acknowledge them and introduce them. It felt particularly important so that learners knew that we were here to support them and that they didn't feel like they were being watched or observed in a way that had some other quality to it, and that it really felt more supportive to them. Our second slide in the pre-briefing actually focused on technical settings. We wanted to make sure everybody got their technology squared away in the beginning. We recommended specific features for their setting to best replicate the telehealth pieces. So, we had them choose speaker view. We asked them to disable the non-video participants. That allowed our staff in the breakout rooms to not appear on their screen. And

then we gave them instructions when they got into the breakout room that they should pin the SP video. That makes the SP video appear across the full screen and gives a student a better view. We weren't sure what size devices people had, so we thought this was a particularly important piece. But just as we do on-site, we apply best practices around goals, describing the assessment, the ground rules, the fiction contract, the logistics. The one piece we don't normally reveal during the pre-brief are the learner instructions. And we're still working out how to do that in Zoom and would love to get feedback from all of you if you've got suggestions. We opted for revealing them on a slide in the final two minutes of the learner pre-brief. We ended up needing to truncate that a little bit for how much content we might normally put in learner instructions. Again, if somebody was using a smaller device, we were sensitive to how much text was on the screen and we also made sure to narrate them. So, if anybody was having any visual issue on reading the instructions, they were getting the verbal piece as well. And immediately after the first two minutes, the first round of students was sent into the encounter. A few tips or strategies we've learned about the pre-brief. I'm experiencing this now as the person sharing the screen. It's difficult to have other Zoom windows open. They tend to cover some of the content on the slides. And it's hard to be focusing on your slide content and monitoring chat and taking attendance. It's really helpful just as we've assigned roles among our team today, it's helpful to have other people support that. It's been very effective to have one person monitoring the chat, especially in some of our larger projects, and interrupting or interjecting those questions in a timely and appropriate manner so that the facilitator of the pre brief can respond to those. Also, we'd suggest preparing for the possibilities of connectivity issues as a facilitator, important to save any necessary files locally that just takes one variable out of the mix. We all have these slides up on our computers right now. Should something happen with my connection and other team members prepared to step in, has those files. And that's a strategy we use in the pre-brief as well. And you don't see it right now, but Joe as our host is doing what he's done in our simulations as well. He's continuing to monitor the waiting room for late arrivals or anyone who needs to re-enter. That's particularly important in the simulations. If somebody loses their connection, they are going to need to rejoin the meetings, so somebody's got to be on the lookout for that. And

that level of coordination is best handled by somebody who can be tuned into the technology features. I am going to turn it to Joe to talk more about our encounters.

Joe: Thank you Anne. We have some great comments actually going on in the chat, so we'll get to those at the very end. A lot of good ideas are coming up as we're going through this presentation. So that's really, really helpful. So, at this point, we were ready for the encounters to begin. One of the things that I wanted to let everyone know is that before orientation was complete, the *[Zoom]* driver really does need to make sure that all necessary staff and team members and faculty have the particular privileges within Zoom that they need before we actually do this. So, you want to make sure that you create cohosts for this meeting. Anne and Lou are also cohosts. So again, it solves a little bit of that connectivity issue so that if for some reason someone drops out of the OSCE, the entire event or the entire meeting is not compromised. The other thing to think about with the breakout rooms, if you make someone a cohost, it allows them to move independently between the breakout rooms. You'll need to assign them first to their very first location. But then from there, faculty can jump between the four different exam rooms, go into the debriefing room, come back to the orientation and go back and forth kind of unobtrusively to the learner, but also independently for themselves. So, they can do what they need to do to really observe the experience and really get as much as they need to for that debrief. Once we're ready to do that, the driver opens the breakout rooms. All Zoom participants must be assigned to a breakout room or moved with the learners. We chose to not pre-build *[the breakout rooms]*. One of the features of Zoom is you can pre-build a schedule based on where the participants need to go. We chose to move the participants as opposed to build them. But we also made sure all faculty and our staff had the co-hosting privileges so they can move independently throughout the project. As we're ready to go, I let the learners know that we were ready to move them to their exam rooms. Excuse me, at the completion of orientations, we did that.

(Next slide, please.)

Joe: Once we had them all in their rooms, we broadcast a message across screens. One of the things that we noticed about the broadcasting messages was that the message is rather small on the screen and it disappears fairly quickly. So as Anne mentioned before, we chose to have a staff member assigned in the

breakout room. To also manage those cues. If the learner missed that come across their screen because they were making a note or there was something that happened, one of our team members would unmute their audio and simply say "there's two minutes remaining" just to make sure that the learners were cued into every aspect of the simulation. You can see here that we did a beginning, two minutes remain to start the patient feedback and the end of the encounter. In our SP training session, we also queued the standardized patients to be essentially another mechanism that's in place to help safeguard against the learner going over time. And so, if needed, when it got to that feedback portion with the patient, the patient could have stopped and said, you know, I think they called time. We're going to go ahead and start feedback. So, a couple of different things there with the broadcast messaging as well as the verbal announcements. Once they were done with their encounters, we went ahead and moved them into the debrief room. We had three more rounds to get through before we did a final group debriefing of all 15 learners. So, the learners were instructed to wait in the debrief room and they could work on other things until we're ready to start that process at the very end. One thing to note is that the breakout rooms can be a lot to manage. And one of the things that we figured out was that depending on the number of learners per group or depending on the project, you'll want to be specific around how many breakout rooms you actually schedule or craft based on the planning meeting with your client.

(Next slide.)

Joe: We're going to go ahead and show you a quick video of about three minutes of the experience with a learner that has agreed to let us show this. This is going to focus primarily on the physical exam portion, which is that narration that we talked about. And really why we thought this was helpful is that you get to see the standardized patient (SP) and the learner (LR) have a little bit of a negotiation, if you will, of how to make this work. And you can see, even though it's not verbally said between the two of them, you can see the give and take between them and how they manage this interaction.

(Simulated Encounter Video plays)

SP: *I think it usually feels better when I lie down, so I notice it right away when I wake up.*

LR: *Okay, perfect. I'm going to move into my exam. So, for the exam, I'm first going to listen to, your, I'm going to feel your neck, I'm just going to feel for any swollen lymph nodes.*

SP: *There are no palpable or tender lymph nodes.*

LR: *Perfect, I might check and see the size of your thyroid.*

SP: *The thyroid is smooth without palpable nodules and non-tender.*

LR: *I'm going to listen to your lungs - you know what, first I'm going to look into your mouth.*

SP: *Everything is normal.*

LR: *OK, no lesions. And then I'm going to listen to your lungs. I have to take a nice deep breath as I listen to your lungs, just making sure there's no wheezing or lung sounds that are abnormal.*

SP: *Lung sounds are clear to auscultation with air entry throughout.*

LR: *I'm going to listen to your heart, listening for S1 and S2, making sure there's no additional heartbeats, rubs, murmurs.*

SP: *Heart sounds, rhythm, and rate are regular. S1, S2 no murmur, rub or gallop.*

LR: *Okay. I'm going to move down into your abdominal exam for you. I'm going to palpate each of the quadrants I'm feeling for any tenderness, any masses and then also check for your liver border and see if there's any enlarged organs as well.*

SP: *OK, abdomen is slightly rounded. Abdomen is soft. There is mild tenderness to palpation in the lower quadrants. There is no severe pain, guarding, rigidity, or rebound tenderness to any abdominal exam maneuvers. There are no masses or organomegaly.*

LR: *I'm so sorry. Do you think we can repeat some of that abdominal exam. I got the—it's round and soft. But tender, in the lower quadrants no organomegaly, no rebound tenderness…*

SP: *…mild tenderness to palpation in the lower quadrants. There is no severe pain, guarding, rigidity, or rebound tenderness to any abdominal exam maneuvers.*

LR: *Okay. Thank you. Perfect. Couple of questions I might want to go back to, I'm going to continue to your exam, but as a woman, I would like to know when your last menstrual period was.*

SP: *It started a couple days ago.*

LR: *It started a few days ago? (SP nods head 'yes'.) So, you are currently on your cycle? (SP nods head 'yes'.) Okay.*

Joe: So, we're going to go ahead and stop there. So, you were you able to see a little bit of negotiation happening between the learner and the standardized patient. And really working through the trial or the first time with this narrated physical exam and this queuing sheet that the standardized patient used to help the learner get information they would normally get her elicit from their physical exam.

(Next slide)

Anne: So, as we moved into learner debriefing, we planned and did use the same debriefing strategy that we often use for larger group debriefings, which is based on modified plus delta strategy. And I was concerned I haven't facilitated a lot of debriefings in a large online group and wasn't sure how students were going to manage kind of talking over each other. And it's nice to have an organic conversation with the students. And so, I previewed for that. I said we're going to try to create an open dialogue here. If needed, I will step in if there's confusion over who can talk. But let's just see if we can co-facilitate this as a full group. And by and large, everybody was very successful doing that. As you can see, we covered a lot of the same types of content that we would have covered if this were a face-to-face interaction. There was an additional emphasis on the telehealth piece of how to navigate the online experience. But a lot of positive takeaways good contributions across the group. The first adjective that a student shared about their overall simulation experience was "smooth", which was really interesting. I was expecting to hear "awkward" or some other descriptor. And really what that told us was, despite that there might have been a few glitches behind the scenes that we were managing, that we knew about for the students, this really worked. And that was really exciting. I also want to point out that this is data that was captured in the whiteboard feature in Zoom. And so, I was facilitating debriefing and Joe was managing the whiteboard. And that allowed me to put the gallery view up so that I could see all of the 15 participants and their faculty members and could better have that exchange back and forth and still capture this content. So, it's available for the students to see and for us to have after the fact. We also routinely ask our students, and learners to evaluate their simulation experiences. We have some specific telehealth items, but these are items that we actually assess across all simulation projects *[in which telehealth applies]*. I think it was really encouraging to see how much agreement and how much strong agreement there is across these really important simulation categories. That it was realistic enough that it felt applicable to clinical practice, that they could work outside their comfort zone. That in the debriefing, even though we were in this gallery format in Zoom, they were able to learn from the experience and that they feel more prepared to manage these kinds of clinical situations in the future. And this global item, this was a useful experience—85.7%

strongly agreed that it was useful. That erased any doubts we had about our ability to keep working to make this better, and that it is useful even if it's not perfect. We also asked for some comments from students, and these are verbatim off of their evaluation. We asked them to rate the three best things students said, still able to have the SP, even though at home. Seamless flow of experience. Being able to do it without having to come to campus. I think that speaks to the future. Getting to experience the role of the provider in a telemedicine environment. Really important. We didn't see that as an initial goal, the feeling of being back and clinical. And that certainly speaks to where students are out with their lack of access to clinicals and how we can play an important role in that and reaffirming my thought process with others through the debriefing. So, debriefing can still be really effective and important for students in this setting. We also asked students what to change. We wanted to know how we can continue to make our simulation experiences better. And this is some of what they had to say. I think there should have been a five-minute prep time before the first group had to go. As I mentioned that first group up after that two minutes of learner instruction got whisked into the encounter. They didn't have that walking time to get to exam room four or six. They had to go right in. So that's something to think about. Patient information should be shared at the beginning of the breakout room. We're still working on that and I think the chat will hopefully give us some good ideas and perhaps conversation after this as well. Longer visit times for a first-time…*[online simulation]*. We didn't think about that feature, but as we're continuing to work with faculty and adapting additional programming, that's something we're starting to discuss. Do we have an opportunity to increase time because this format is new and because this format might take a little bit longer where you can't talk over each other quite as easily or effectively? More clarity about physical exam instructions. So physical exam worked. They were able to have really positive evaluations and learn from the experience but just as you saw, there are some things we can do for training, for case development and instructions that can help that process as well. Debrief with the cohort instead of waiting until the very end. So, we waited for all four cohorts. That was very much a staffing choice. We had all of our staff deployed, or many of our staff deployed supporting the rooms. That's certainly something to be considering is what are students doing in their downtime? And my favorite

opportunity to change is more frequent opportunity to do this, which is a great thing to change.

Joe: And so, we also focused on the debriefing of the standardized patients. Our simulation team employed and is using the emerging standards of best practice. We have a high emotion and a low emotion debrief checkout form…We will sometimes choose to do that verbally and written. Most of the time, or almost every project has at least a written capacity. So, in that debriefing process, I encourage the patients to think about this experience, particularly: How was it similar? How is it different from the other work they've done with us and really give us insights and feedback on what went well and what things they were really challenged by. Just so you're aware the four standardized patients had been with us from a range of about a year to five years. So, a little bit of range there in terms of their experience. These were direct quotes from the patients. I was concerned about this not being good enough and me not being good enough in terms of portrayal without being in front of the students in the IERC *[on-site]*, another SP had said it felt so easy, being in my home. Maybe we'll feel more comfortable almost to a point where I had to remind myself, I didn't have abdominal pain, and this was a sim. Some really good feedback from the patients in terms of how they felt about this experience, especially for some of them have done numerous projects with us.

(Transition)

Lou: So again, my observations. I really want to reach out for a second to all of you, in particularly leadership roles, the most important thing you can do for your team is to say "it's okay not to be perfect". This is new. Give people the freedom, the lightness, the creativity that this community has-to work together and to make it happen. And as we're doing, you will find your way as you go. But it's still important because all of us take this very seriously to give that permission, to say it out loud, to say it is okay. Just do it. Let's try it. We can do it. I saw…learners connect with SP's to build relationships, to show empathy. It was exciting to see that happen in real time. I saw the altering of facial expressions was noticeable and powerful. This was really interesting because there's such a focus on the face when it comes to showing compassion or empathy, you can really see that, and that was exciting. We opted to make space to acknowledge COVID-19, or in other words, the world around us. We thought that is useful and it helped create

authenticity in encounters. I found that fascinating because so often we have our script, we have what everyone's going to say, but I think this can encourage us to look at future case scenario development and say: "Let's be open", "Let's bring the world into our cases" and that creates authenticity. That creates realism, rather than suspending disbelief at the expense of authenticity. And then finally, our team members, the M simulation staff members, felt the event was choppy. I was watching them get critical of themselves. And I was sitting there going, "Yeah, it happened!", you know. So, I think Anne's mention of the learners first response that it was smooth—I'm going to tell you she didn't believe it, *(laughing)*…I watched her ask, once, twice again, "Was there anything else?" and I was thinking, they thought it was smooth, you know. I think I think that was very telling, *[about how hard we, as SP Educators, can be on ourselves sometimes even when things went very well].*

(Next slide please.)

Joe: So, this is just a slide to help you visualize what we did. About four days later, we scaled up this project going from 15 DNP nursing students up to 104 veterinary medicine students from Friday to Monday. You can see here it's a little bit hard to read, but I'll just give you the basics that we decided to go from four to six breakout rooms. And you can see that we have four learners per breakout room, they were put into pairs. There are two active participants and two observing participants. The observers had a role or a guide that they were filling out while they watched the encounter. This one also took a next step for us in that we moved the learners between two different cases, a large animal and a small animal case. So that was something that added another layer of complexity. And then they were also moved from there into the debrief and we had rolling debriefs for this one. So, you can see here we decided to take those next steps in certain key areas. Now, as the person who hosted or drove for this simulation, I can tell you that trying to move 24 or 48 participants at one time, to different breakout rooms can be particularly challenging. You're able to do it. And we were able to do it. I would really encourage you to be mindful about that and think about the time that you allow between encounters. Because we were able to make that happen, it just had to buffer a little bit of the time there. So that was a big consideration. We also were fortunate in that with us having created an SP lounge or a staff or a fac-

ulty breakout room in the very first simulation. When we got to this one, we needed that extra room to actually move participants. So, I moved with participants from six into this empty room. And then you can move five to six and so on, so that you weren't moving learners into a room where other participants were already in there as we move through this process. So, as you're thinking about multiple encounters for learners, or multiple stations that they'll go through, definitely consider additional rooms so that you have that moving factor. And then, I think one thing that we mainly just want to make you aware of is that when you're thinking about scaling up or scaling down the project's really try to situate yourself within running the actual projects to see exactly how many participants are manageable and how that impacts your orientation and your debriefing as well.

(Next slide)

Joe: So, a few lessons learned here and another was that we figured out that it would be really helpful to use Zoom screenshots for orientation. Especially with the standardized patients, there were tech issues in terms of working through the different devices. And we didn't know that going in, that it's different on an iPad versus on an iPhone versus on a desktop, computer or laptop. So really taking screenshots of all those different platforms, so that you can have those at your ready to share with the patients or the learners are with faculty to really help navigate that. We thought it was really important to pair a tech person with an education person. Anne mentioned some of this in some of our staffing before. But we really made it a point so that to think about people not having too many things to do are extending themselves too far. We had someone helping with the debriefing whiteboard. We had someone driving. We had lots of different people behind the scenes navigating different aspects of this. We also realized that supporting faculty also needed to be thought about ahead of time, and really the orientation to Zoom and creating guides. And creating how-to's for making sure that faculty feel supported and that they're able to move through the simulation so that they can focus on the education. We did rolling orientations, as I said, for the veterinary medicine project, for larger projects that takes more support so really be mindful of that. And this seemed like a small thing, but a timer app became really, really critical when you're trying to manage all these different aspects of these announcements that are being broadcast to everyone without actually being able to verbally announce them to all

rooms. And then we also made sure that if the students finished earlier at station, we had the standardized patient mute their microphone in their camera. So, there wasn't this awkward silence where they were staring at each other until our team could get around those rooms and actually in Zoom, moved them to the debrief. And then we're still thinking about better options for delivery of learner instructions. As Anne mentioned, we put those as one of the final slides in the orientation. We have thought about potentially putting those in the chat. And each of the breakout rooms the learner could click on them at that point which might be really beneficial when thinking about patient charts or any sort of other images or files that you want the learner to be exposed to lots of different ways to accomplish this. And we're still thinking about ways that would be successful sites.

(Transition)

Lou: I do want to acknowledge we have about five minutes left officially together. We're going to go through the rest of what we have. We should be able to cover it in that time. We obviously had a lot to share with you today. We've had some incredible questions in the chat. I want to encourage you to keep putting your questions in the chat because we will get back to you. We plan to download the chat. We will answer the questions and we'll make it available in a script format for you along with the recording of this session. So, we're going to go ahead and do that, but a reminder to go ahead, keep those questions coming. And also, if you haven't already, please put your full name, institutional affiliation and don't forget to put your e-mail into the chat so we can get back to you.

I will answer that we've had a lot of questions on how many staff did it take for us to do this? I will be very transparent. It took 7 full-time people working together to mount this first exploration-this first nursing event which is a great transition into sustainability. We can't keep doing that. 10 days into this, this poor team looked like, *"Are you kidding, we can't keep doing this!"* and they're right. So, we have support from leadership to explore how can we make this more sustainable.

So here come do's and dont's:

- Do be mindful of the health and wellness of the simulation team members, it's critical. That's number one.
- Do not over schedule events, with multiple events on the same day; we're likely going to have to scale back, you know, and, and that can be a question of priority, but there are creative ways to do that. You might be able to combine

events. Our AVP Carolyn Porta, on our Simulation Oversight Committee, had this great suggestion of what if we find events from different learner groups and encourage them to work together and create one event with similar task goals, learning objectives. What a great opportunity for interprofessional education, which in quick preview, will likely be one of our upcoming sessions for this series online.

- Do reach out to SP education colleagues. If you have a small staff, what about reaching to others in our field and combining efforts? What a cool thing. You've got multi-institutional collaboration right there.
- Do create multiple teams—if you're fortunate to have a larger staff, and we're working on that now for sustainability. And you can see here today there are three of us. I think that's a pretty good model to go with. It gives you the opportunity to use, if you have, on-call or part-time trainers to keep them working, keep them employed, student workers, you know, we all have those folks in our world and we want to help keep them working, too.
- Do take time to thoroughly debrief as we've done here and shared with you.
- Do reach out and share the significance of everything we've covered with your faculty and institutional leaders. Ask for support and collaboration. We are so fortunate here at Minnesota to have that. And I think a lot of time sim educators, we are doing things behind the scenes. We're making it happen. And we don't share what we're sharing right now, which is all the work that it takes to make it happen. They need to know this so they can better help you and they can help you think through these challenges.
- Please don't be hard on yourself in the early days of adaptation. Cut yourself a break and congratulate yourself when you implement your first event. You will!

(Next slide, please.)

Lou: So, to wrap this up, SP events in fully online format—they are doable, they are effective for health care learners. And producing these events allows us to continue to support our health care workforce in educating the next generation. Now, more than ever in his time of COVID-19, that's important. And we need to embrace opportunities for multi-institutional collaboration and IPE. And I think even most importantly, imagine the future of healthcare simulation education. Look what we can do in creative spaces, and this is important because a lot of our disciplines that work with us—some of these can have up to 50% of their requirement for clinical time, for clinical education, can be through simulation. So online platforms will help us meet that need. And, it will be good for everyone really.

Eventually, when we get past this *[COVID-19]* and doing it out of necessity. But let's look to the future of how this can help us as we get past this time. And I think I want to circle back around to feedback from one of our learners, who said that being able to do it *[human simulation]* without having to come to campus was a benefit. And I think that just speaks to our future beyond COVID. And the title of this series ends with the word "beyond".

We will get beyond this. I'm so happy to have you all with us today. We want to support you in that, and we are with you.

We can't thank you enough for being with us today. Best wishes…and special thanks to our healthcare workers who are putting themselves on the line for us. Thank you all so much.

(End of session)

Q & A from Zooming with SPs

During the Zooming with SPs live presentation on March 27, 2020 the attendees had many questions for us that were posted in the chat function on Zoom. The questions are provided in italics with responses from our team below. The questions and responses provide specific details on managing technical aspects of Zoom to implement simulation events with SPs. We used this format so we could preserve the excellent questions our colleagues asked during the webinar and disseminate them for later use. Many thanks to each of our peers who posed a probing question that allowed us to further explain our processes as well as to help refine our processes for human simulation online. We hope their questions and our responses will be helpful to you as well.

Is broadcast messaging a feature of Zoom or showed from your screen?

Broadcast messages are sent out from the host controls. They are in the breakout rooms feature and you can send as many as you like. We chose to sync this with our timing announcements that we would typically do via a clinical skills software and overhead paging system in person.

Were the encounters recorded and who does make the recording?

Yes, anyone who is a host or co-host can record the encounters. Because we are part of the health sciences at our institution, we can only record locally on our devices. The full capabilities of Zoom include the ability to save to the Cloud.

What number of rooms did you find manageable with how many staff?

The answer to this question is somewhat dependent on the project, the number of learners, the formative or assessed nature of the project, and several other factors. As noted in

this presentation, our first time implementing an event in Zoom we had seven staff members helping. Since that time, we have been able to scale back from this and, at times, have had one staff member running small events in Zoom. Also, we have trialed breakout rooms numbering from four up to 10. A key factor in the number of breakout rooms is how many learners you have in each of them. If it is 10 breakout rooms but one learner per room, that is more manageable than 10 breakout rooms with four learners per room.

How did you, or how will you, address pronunciations during SP PE findings?

The course directors provided the verbal findings in a format that more closely resembled written documentation in an EHR. For this event, the verbal findings were written in clinical language. For future events, we have asked course directors to provide findings in lay language, when possible. For necessary technical words, additional time will be spent in physical exam role play during training so that SPs can practice the flow of the verbal findings as well as the pronunciation of words that may be difficult.

How were the SPs debriefed?

The SPs were debriefed by a staff member who utilized our low emotion debriefing form which asks SPs to answer questions related to the things that learners brought up in the encounter that weren't exactly scripted or they felt unprepared to answer, the things they would change about the case/learners/setup/anything, what part of the simulation was the most challenging for them, and finally what part of the simulation did they think they did best or liked the most. We also specifically asked about comparisons to in person simulations vs. this online method.

What were the total number of staff used and number of SPs involved?

For both projects in this presentation, we used seven staff members. Four SPs worked on our nursing project on 3/20/20, and six SPs worked on our Vet Med project on 3/23/20.

Where were the videos stored? On a computer? Hard drive? Where did you upload the videos to?

Because of restrictions for health sciences regarding protected health information at our institution, we can only save Zoom files locally. We are only using University devices to store locally; staff are not using home computers. At our institution, you must also be designated as the host or a co-host to have recording capabilities. We are uploading the saved files to a Box site, which we are told has a higher level of security than other similar media management sites.

How long was the SP debrief?

SP debrief is typically scheduled for 15 minutes after the final encounter. This debrief took about 10 minutes.

In the future, would you be able to share an encounter from the start? I am specifically interested in the use of *the breakout rooms and the beginning of the encounter. Thank you!*

We are open to sharing more about our implementation process and an encounter video and are considering the best way to do this so any presentation we provide would not be passive. Stay tuned!

Did you have any concerns about the SPs not being able to distance from their role, as they simulate it in their own home? (Maybe more important for more emotionally challenging roles).

Appreciate this question and for these events, we did not have undue concerns regarding the SPs working from home as these roles were not emotionally challenging or of a sensitive nature. We may choose to use our high emotion debriefing checkout form for sensitive or emotionally challenging cases in the future. This document helps SPs work through their emotions in the simulation, emotions they felt in other encounters that we prompt them with, and how they can leave them behind or strategies for this.

Does your institution have a shift differential for when SPs are doing lead work?

No.

How do you manage downloading multiple room recordings at once?

In order to record each room to a local device, (a requirement with Zoom at our institution due to restricted use in health sciences and protected health information), an individual must be designated as a host or co-host in the meeting. To record each of the four nursing rooms, we had one staff member assigned to be in each of those breakout rooms. That individual was responsible for recording that room.

What is the MINIMUM number of staff necessary to run students through this kind of activity? Please describe the role of each staff member.

Each project requires, at a minimum, a Host to oversee running Zoom. This individual admits participants into the meeting and can move them through the breakout rooms. From our knowledge, only one person can be assigned to be a Host with this full level of control. We also had the host manage timing and use the broadcast message feature in Zoom to display timing messages in the breakout rooms. As the number of learners and breakout rooms increases, this demand becomes challenging on the host. We had a separate staff member assigned to facilitate pre-briefing and debriefing, for much the same reasons that we typically have a control room operator onsite managing our digital asset management system and a separate staff supporting the pre-briefing and debriefing. Beyond those two key roles, project complexity drives staffing needs. Because we can only save locally to University devices (a restriction from our institution due to our location in health sciences and needs concerning PHI), each breakout room must have a staff member if we are choosing to record. The other staffing consideration is

providing general technical support. We have found it helpful, when not recording, to have one staff member assigned to two to three breakout rooms to circulate and provide more immediate technical support. This need may diminish as all users increase familiarity in Zoom. Depending on your monitor size and ability to display the learners' video and the whiteboard in debriefing, it can be helpful to bring in one staff member to use the whiteboard while another staff member facilitates the debriefing. Per our standard staffing, we typically assign one staff member to manage the SPs, facilitating their pre-briefing and debriefing and providing general QA.

I would like more information about the white board option.

The whiteboard is a feature you can utilize via the screen share option. It allows you to dictate the conversation that is happening during the debriefing. We chose to have one person dedicated to filing out the whiteboard. You could think about the feasibility of verbally facilitating the debrief and being the whiteboard scribe.

How did you schedule the rooms and coordinate the SPs and students in each room?

The host manually moved participants through the Zoom meeting and breakout rooms. SPs entered the meeting 15 minutes in advance of learners, and the host moved them immediately into the breakout rooms. The host admitted learners from the waiting room five minutes prior to the start of the pre-briefing into the main session, and then manually moved them into breakout rooms at the correct time. The SPs remained in their breakout room, just as they would remain in their exam room in our simulation center, and learners entered per the schedule. The host moved learners to the debriefing at the conclusion of their stations.

Does Zoom Pro version have all of the features you have used?

The university provides us with the Zoom Enterprise feature. The Zoom Pro version has limited features including less participants (up to 100), a maximum meeting length of 24 hours before it times out, along with several other features. https://zoom.us/pricing has a comparison tab that speaks to features and pricing.

Do you have plans/thoughts for how this would work for a summative exam? (physical exam technique, checklist scoring...)

We anticipate introducing checklists for SPs in the near future, using Qualtrics, which is an online tool supported at our institution. The SPs could access that tool during a post-encounter period. We anticipate allowing more time for this than when onsite using our digital asset management system.

Can you share the Zoom education videos?

Please see tutorial videos created by zoom at this link (https://zoom.us/resources).

What was the level of confidentiality of the case material?

All of our case materials are standardly deemed confidential. SPs are given these materials in advance of training and are required to keep the contents confidential. In pre-briefing, we requested that learners not disclose the case content to others.

Would like to know what orientation materials/explanation you provided BEFORE the event (e.g. emails, etc. even before the live orientation in the main Zoom room) to learners.

For the nursing project, learners had simple instructions from faculty regarding the Zoom meeting link and the general purpose. They were not advised of any content or process. These learners had previously participated in simulations onsite on several occasions. For our Vet Med learners, this was their very first simulation experience with us. When learners are new to simulation, we standardly create a broader overview of simulation that we disseminate to them in advance of the project to orient them to purpose, facilities and general processes; this is in addition to a more detailed pre-briefing onsite. For this Vet Med project, our simulation team adapted content for the broader overview in an effort to also minimize the time required to review Zoom features.

On Zoom, can you individually record breakout rooms? So, if you have one host and three breakout rooms, (one SP & one student in each breakout room), you have three separate videos?

Each virtual location in Zoom records as a separate video. You have additional control to break a room recording into multiple videos, or you can choose to create one long video (much like a security camera recording).

How are breakout rooms created and how many Zoom Pro accounts are needed to run a program and run all the breakout rooms?

Breakout rooms can be created within the event itself or created in the Zoom profile when you schedule the meeting. The breakout rooms are built according to your need. You can title them whatever you need, and you can have up to 50 breakout rooms in one meeting. You can run the entirety of a project from one account and the breakout rooms would need necessitate a need for more pro accounts unless you need over 50 rooms.

We do not currently have Zoom but is this with Zoom Pro? Do you have tips/" how to's" on how to create all of the rooms/debrief rooms, (e.g. logistics of the event)?

We would encourage you to watch the how to videos on Zoom to begin with. That was very helpful in navigating the features on Zoom. Once we knew the features of Zoom, the system is fairly straight forward. We would also encourage you to look into the settings tab of your Zoom account so you can turn on and off the features you want or don't want (like a waiting room, breakout rooms, show controls, etc.).

How is it possible to have four students per BR in one time block? Are they going at one time?

We implement small group simulation onsite in our simulation facility as well, using a variety of formats to meet different learning objectives and to address different logistical parameters (e.g. group size and time allotment). Most often, we pair learners together, and one serves as the clinician while the other observes; learners can rotate between these roles across multiple stations. We also simulate teamwork but having two or more learners actively work together as clinicians in an encounter, in interprofessional and in single profession simulations. For this Vet Med project, we combined both strategies: two learners were active as the clinician working with the client and the other two were observers. The Vet Med simulation had two stations, so the two learners observing in one station became the active clinicians in the next station, and vice versa.

How do you split the screen in the breakout room?

The recording captures all participants in the breakout room who are sharing their screen. In the video we shared, the SP and the learner were visible because they both were sharing their screen. That room also had at least one staff member and potentially a faculty member, but they were not visible because they were not sharing their screen.

Was the case for a formative OSCE? Were the materials confidential?

All of our case materials are standardly deemed confidential. This was a very standard abdominal pain case written calibrated to the level of a second year Doctor of Nursing Practice (DNP) student focusing on adult and geriatric patient care.

How do you share the Patient Door Chart?

We have been sharing this in orientation on the final slide. This limits the amount of information that we can provide on one screen, as we are aware that learners' devices may have small screens. We are currently working to identify other strategies for doing this that better approximate the timing and format of information that we can provide.

What are the steps to verbalize the timing announcements?

There is no master verbal announcement. We can send uniform broadcast messages in text to all rooms including orientation room and debrief. We also chose to have a staff member assigned to each room to also say this announcement verbally if the learner didn't see it on their screen. You could also coach your SPs to keep track of broadcast messages and in some instances, they can say some of these.

Can you please send the format of your learner instruction slide for the pre-brief?

Reason for Visit: [Description].

Patient Description: [e.g. Name, age, etc.]

Vitals:

Tasks: [e.g. Take a focused history, perform a focused physical exam].

Did you encounter any issues with confidentiality/FERPA/ HIPPA?

Our institution considers our simulation center as part of health sciences. As such, we have a restricted use of Zoom to safeguard against many potentials policy violations. In our instance of Zoom, only the host and co-host have functionality to record encounters. We do not assign either of those roles to learners. Further, as a simulation team, we only record encounters on approved University devices. None of the projects contain protected health information; these cases are fully simulations.

How will the timing change for you all after these two events? Would a full run-through be beneficial in your opinion?

Pre-briefing took twice as long as we had anticipated. We are working on creating some screen captures of Zoom configurations and creating an online resource to distribute to learners in advance of the project to expedite the time required to get all learners properly configured.

We did not do a full run to scale for any of these projects. Our team had spent the week using Zoom for meetings and three to four additional hours of discovering features, thereby practicing. Time permitting, some level of a full run could be beneficial and may minimize team stress. SP training might be an optimal time to engage in some level of piloting your project.

How long did it take to do all 15 nursing students for this session with the breakout rooms?

We planned for the same timing that we would have used for the onsite version of this project, using four SPs. Orientation ran long by 15 minutes, and we needed additional time to support learner movement between the breakout rooms. We had planned for three hours, but the project took three and a half hours in actuality.

Were there any issues with downloading or accessing recordings after the fact?

Downloading video onto our local devices took approximately 15 minutes for a couple hours of video. Staff reported slower operation of their devices until these videos were uploaded onto Box. Files need to be manually labeled for easy accessibility.

How were course directors/faculty involved?

Simulation development and implementation is a collaboration between course directors/faculty and our simulation team which is comprised of faculty and staff. Our team meets with course directors/faculty to develop the project. We co-create case materials that meet required learning objectives, and we also consult on the development of any assessment tools. Our simulation team typically leads pre-briefing in the presence of faculty, who contribute by answering learner questions. Course directors/faculty observe simulations; in some projects, they also provide feedback to learners after an encounter. For the Nursing and Vet Med simulations we discussed, our simulation team co-facilitated the debriefing with course directors/faculty; the simulation team facilitates general discussion and faculty contribute clinical perspectives.

Perspectives: Interviews with SP Educators Implementing Human Simulation Online

This chapter section features perspectives from colleagues in the field who are also implementing human simulation online during the COVID-19 response. Our peers responded via email to six interview questions discussing their experience with implementing human simulation activities online before and during the pandemic. Each provides tips for this process.

The Interview Questions

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*
2. *What helped you implement SP activities online during the COVID-19 pandemic?*
3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*
4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*
5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*
6. *What else would you like to add on this topic that we have not asked you about?*

Debra K. Amos | Coordinator – Standardized Patient Program
Office of Educational Improvement
Medical College of Wisconsin | Academic Affairs
Wauwatosa, WI

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

   None. This was due to there not being a request from Course and Clerkship Directors. Standardized Patients and physical space were available to host all requested events.
2. *What helped you implement SP activities online during the COVID-19 pandemic?*

   We knew there had to be something done for our students to complete their third year requirements. After attending the virtual presentation done by the University of Minnesota M Simulation team we learned the online OSCE process could run very smoothly. We patterned our OSCEs close to what was presented by UMN. UMN staff took the time on a separate occasion, to share additional information regarding the breakout feature in Zoom, which was extremely helpful. When M3-4 students were pulled from the wards, they were not getting any educational encounters. Also, the pandemic allowed people to see that telemedicine is something that is going to become

commonplace in the future, so it makes sense to train the next generation.

The Learner Instruction Guide and Technical Abilities Survey from New York Institute of Technology also helped us tremendously. Therefore, we did not need to create those documents, only tweak them to fit our institution.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

   Our greatest challenges have been the need for additional support. We have a small team, and with Room Monitors needed to support the online encounters, we needed to reach out to additional staff. Although staff were very happy to support us, that process took the most time. The course and clerkship directors ensured us that we had their full support. With that support, we were able to provide a very positive experience for our students.
4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

   Attend the webinars and use the resources provided by other members of ASPE. I would also advise SP Educators to continue to pay it forward, as was suggested to us. We were able to take what we learned, apply it, and help others get started.
5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

   I believe this prepares students for future telemedicine and telehealth visits with actual patients. This situation has given them an opportunity to practice. Our SPs also provide feedback to the students after each online encounter. The student's response to the feedback has been very positive.
6. *What else would you like to add on this topic that I have not asked you about?*

   Don't be afraid to reach out to your colleagues. Partnering up with other schools has helped us to provide timely OSCEs to our students. We have received feedback from the students, sharing their appreciation for a very educational experience, in their efforts to become great doctors. And that's what it's all about!

Nancy Budd Culpepper
Director, Standardized Patient Program
University of Maryland Schools of Medicine and Nursing
College Park, MD

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

   Our only online experience was doing makeup case training and feedback modules for our SPs. We had very little experience with online video conferencing platforms except for rare meetings with distant faculty and

offsite clients or vendors. Our occasional virtual SP trainings were a mix of conference calls and the training component within our simulation AV enterprise system, CAE Learningspace. We actually had been exploring the use of online video conferencing to extend the reach of a simulation-based preceptor training project we'd partnered on for several years, but that was in the infancy stage when the pandemic hit.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

Grit, need, a great SP simulation team, and the bravery instilled by watching the early adapters in our fabulous international simulation community. We knew we needed to take the leap to support graduating students in need of clinical hours, provide necessary high stakes exams, to support student learning and overwhelmed faculty, and to prove that online simulation could be stimulating and effective.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

Diving in without adequate planning created a series of lessons learned. Confused SPs and learners, while grateful for the work and experiential learning, caused a bit of frustration in the beginning. We quickly realized the detail, extra effort and resources required for online simulation. At this juncture, I would say the three things that continue to provide the greatest challenge are: a) test security for summative simulation encounters, b) an easy method for video capture in a confidential, FERPA compliant environment, c) teaching and assessing physical exam skills. Those things are driving the discussions around making simulation an onsite essential function within our university for the fall semester.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

Of course, everyone will say… just do it. Access all the wonderful resources within our professional associations and talk to a few experienced early online adaptors, (everyone is so eager and willing to share, bless them), process the formulas that worked and take a leap. Plan like hell and plan again. Prepare your learners and SPs on formats and procedures – there is big payoff in a simple one-hour tech session. Have written procedures and guidelines. Have faith in your SPs and learners to get it and do it. Just this week we rolled out a videotaped, four station OSCE for 160 medical students and were amazed at how smoothly and effectively it ran. A few unavoidable connectivity glitches, but otherwise remarkably uneventful. The high stakes virtual simulation maiden voyage, a three station OSCE for 140 pharmacy students, we'd run a few weeks prior gave us confidence and a template for planning. It is daunting, but with good prep it can be done!

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

The realization that we can do online SP simulation effectively and relatively easily is a game changer from my point of view. Given the state of the unknown with our current pandemic situation, online simulation will continue to play an important role in safely educating and assessing our students for the months and perhaps years ahead. With the current reliance on telemedicine, SP simulation can provide an ideal modality for training providers. Telemedicine OSCEs can assess these skills.

Further, I believe that even if we return to in person simulation in the near future, we will conduct all of our case trainings and many of our formative simulation events online. In addition, the online world expands our ability to schedule large and remote groups of learners, extending opportunities for events that would be otherwise impossible to do live in our limited capacity simulation space.

6. *What else would you like to add on this topic that we have not asked you about?*

I would add that tapping into the talents and strengths of your team and providing recognition for success is key. It is also critical to realize that online simulation often takes more resources, not less, than in person simulation. SPs can be a great administrative asset in that regard.

F. Shawn Galin, PhD
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Office of Standardized Patient Education
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1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

We had no previous experience in conducting online or remote SP encounters before the COVID pandemic began. Our institution had prioritized hands-on clinical skills learning and assessment up to this point. Although the importance of preparing our health professional learners for telemedicine has been an ongoing discussion point, no measures implementing such curriculum had yet occurred. The COVID-19 pandemic has created the large spark needed for curricular change around telehealth as we move forward.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

We are extremely grateful to the M Simulation group at the University of Minnesota for their global effort to share a rapid and effective approach to moving SP-based training online. Dr. Clark and her team provided, to my knowledge, the first open access webinar addressing the logistical requirements to conduct remote SP encounters

back in March 2020. This webinar entitled "Using Zoom to train Standardized Patients (SPs) and implement formative Objective Structured Clinical Examination (OSCEs) with health science students" remains as the go-to resource for information on training and executing web-based SP encounters with learners. The efforts by the M Simulation group was quickly reinforced by webinars from other institutions, such as the University of Michigan, and other organizations, such as the Association of Standardized Patient Educators and the American Association of Medical Colleges. Since Dr. Clark's M Simulation team's initial report, the use of remote SPs for online encounters has allowed us to move forward and transition the majority, if not all, of all our center's pre-scheduled activities and programming into an online format.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

Inherent vulnerabilities to online SP encounters are internet access and internet stability. We have encountered issues with either student, faculty, SP, or staff losing internet access during an online event. We quickly learned to need to always have back-up SPs and staff ready in the event someone loses internet connection. We recommend to always plan on recording an SP-learner encounter if faculty cannot be present for observation. I remember preparing for an online OSCE when a severe thunderstorm hit my area. I woke up with no power and a large OSCE beginning at 8:00am! Fortunately, there were enough staff with internet to begin without me. I recommend always preparing for such issues.

Another issue is staffing. Although, once the technology becomes familiar, it does not take an army to execute an online OSCE, never put the sole responsibility on one person to oversee the event. That individual could lose internet, get sick, or have some other issue making it difficult to successfully run the online event.

Finally, we have a number of SPs who are eager and willing to be trained to participate in online encounters but do not have the technologic capabilities to do so. This is a very unfortunate situation and, depending on the anticipated need for and amount of telehealth encounters to occur as our centers move forward, this will be something that needs to be discussed and addressed.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

My recommendation is to take the plunge and have fun! We initially tested the waters with practice sessions using staff and SPs before we ever scheduled an actual event. We reached out to colleagues with questions and issues and were always supported. We have a wonderful

SP Educator community who has your back during challenging times. The high level of support from the SP community gave us the confidence to be in the position we are in now, running online events and OSCEs for multiple schools within our university. It is an exciting time even as we continue to face a high degree of uncertainty of returning to "normal".

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

We are currently witnessing an exciting time in SP work. The need to expand our efforts and think "outside the box" in order to respond to the COVD-19 crisis, has placed new potential and opportunity for SP-based curriculum into the hands of our stakeholders. As the COVID-19 pandemic continues, health care providers are increasingly relying on telehealth technology to provide for their patients. The use of telemedicine has underscored the importance of training health professional students on efficient and effective use of it. We are now seeing SP Centers readied and able to conduct online patient encounters. This provides a wide range of opportunity for all health professional schools and health systems in the training and reinforcement around telehealth visits. This opens the door to a new wave of SP-based programming and highlights the ongoing educational value of SP Methodology globally.

6. *What else would you like to add on this topic that we have not asked you about?*

Over the past two months, we have been training and employing SPs for online encounters. During this time, I have been truly impacted by something I've observed. When the COVID-19 pandemic first hit, there was a high degree of uncertainty among SPs. They were, understandably, concerned how this would impact their employment and ability to work during the time that the university would remain closed. Once we began messaging our efforts to move to online and remote educational programming, there was such a spark of excitement and enthusiasm from our SPs. By engaging them directly in our positive approach to dealing with the crisis, we helped reinforce their value and worth in educating our learners. Based on comments by our SPs, this reminded them how important they are to our institution and gave them a sense of hope and optimism for the future.

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Sr Executive Director,
Wasson Center for Clinical Skills Training, Assessment, & Scholarship &
Interprofessional Education Services
Assistant Professor, Psychiatry
Assistant Professor, Family & Community Medicine
NEOMED
Rootstown, Ohio

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

   NEOMED had begun to explore implementation of SP activities online prior to the pandemic. As part of the buildout of our new simulation center, we had planned to be able to offer tele-SP training, albeit with SPs on-site at the new center.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

   NEOMED is a small community-based medical & health professions university in the Midwest. Honestly, what comes to mind is a quote by Margaret Mead "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has." Flipping an on-site model to a remote platform in two weeks to implement SP Methodology online and continue to deliver medical, pharmacy, and interprofessional education curriculum, required a collaborative dedicated small group of SP Educators, center staff, and faculty. This group worked tirelessly around the clock to provide this just-in-time training to students & faculty.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

   The greatest challenge has been the greatest reward. The "flying the plane while building it" model only worked through the collaboration of a diverse international community of SP Educators & simulationists that we're able share knowledge, lessons learned, and support one another despite the global turmoil and individual and collective emotional toll.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

   Reach out to your colleagues and invest in professional associations. Identify mentors through organizations such ASPE that promote and provide professional development opportunities and encourage collaboration.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

   In the coming weeks, months, and years, the SP Educator will play a key role in leading and guiding the application of best practice SP Methodology & the transformational power of human interaction to promote safe and ethical healthcare and human services.

6. *What else would you like to add on this topic that we have not asked you about?*

   Finally, my thanks to all my mentors and colleagues and an association, ASPE, that promotes this profession and the amazing members who contribute to a society of healthy individuals and communities.

   Howard M. Gregory II, M.S.
   Standardized Patient Program Manager

Simulation Center
Case Western Reserve School of Medicine
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1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

   None.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

   I was being asked to create telemedicine cases online with video recording for the first time and felt very overwhelmed before I attended your webinar. After hearing how Joe, Anne and Lou did their simulations with Zoom, I not only knew it could be done on the fly but also had a wonderful blueprint to follow. Luckily I had invited a faculty member from one of our off site clients who felt the same way and who needed to find a way to complete a canceled behavior health program (which lent itself easily to a transfer online). In addition, the client had the faculty support to have an observer in each room recording student sessions. We started small and gave ourselves time between sessions so even when we ran into issues, we stayed on time and the students say only a well-run program.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

   • Discovering the roles needed to run a successful program in Zoom. Finding out where backup is needed and how to keep SPs and facilitators engaged.

   • Learning my own limitations as a Host (in Zoom), delegating tasks, keeping back channel communications going while hosting and finding tricks and tips to help me more easily manage SPs and learners.

   • Supporting my staff and SPs in Zoom, who are all on different hardware / software / operating systems.

   • Educating faculty members on the limitations of Zoom recordings and possible FERPA, (Family Educational Rights and Privacy Act) issues when recording to staff or learner or faculty home computers.

   • Encouraging faculty to adapt simulations and change them from their in-person versions to a way that allows us to easily transition to either Zoom or CAEs adaptation to Zoom.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

   • Managing Zoom simulations can be more challenging than the in-person versions of the same events so schedule your program and yourself accordingly.

   • Create detailed workflows and update them as you go. Define and redefine roles and responsibilities as you go to make sure you create a system that works for you.

- Pilot your first program and keep it small, (you can expand on later dates if needed but this will help you understand what you need and make troubleshooting easier).
- Have a student orientation to Zoom a day before the session. Let them explore, troubleshoot and get comfortable. You may still have to troubleshoot during the program but hopefully less.
  - During student orientation be sure to address issues with their environment (lighting, dirty room, children, pets, etc.).
- Let students and preceptors know we expect the unexpected, such as:
  - If a learner gets dropped we'll stop the clock until they log back in.
  - If a child suddenly demands attention, we can flex time so you can attend to a tantrum or bandage a knee, whatever the student needs.
- Back up SPs, faculty, staff, facilitators are important, but be sure to rotate them into the sessions (if not needed to replace another due to technical issues) to keep them engaged and feeling useful.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*
  - We have already heard that online simulation will remain a part of the 2020/2021 school year and that Telemedicine will be added as a permanent part of the curriculum.
  - We plan to move as many training sessions as we can to Zoom.

6. *What else would you like to add on this topic that we have not asked you about?*
  - None

Bob Kiser, CEC, CHSE
Associate Director
University of Illinois at Chicago
Simulation and Integrative Learning Institute
Department of Medical Education
Chicago, IL

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*
    We had no SP activities online. We had done telehealth simulations.
2. *What helped you implement SP activities online during the COVID-19 pandemic?*
  - M Simulation's first webinar on how to use Zoom for simulations.
  - Zoom
  - Learning Space integrating Zoom
  - LOTS of run throughs with technology

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*
  - Technology fails!
    - Learning Space using Zoom is very "glitchy." If you change anything in your scheduled event- time slots, etc., the system won't connect to Zoom.
  - SPs using technology.
  - Students using technology
    - For both SPs and Students- following directions.
  - Communication during events-
    - We took for granted the ability just to pop into an SP's room to answer a question or to simple walk up to a student having an issue. During the encounters, when using LS, the participants (both SPs and learners) are on their own until they connect in the system and open-up a Zoom room.
          When using just Zoom- it was easier to communicate due to breakout rooms, etc.
    - The way we worked around the lack of ability to communicate with participants was that the coordinator had two text chat groups on their phone- one for learners and one for SPs. Plus, all participants had the coordinator's number in case there were questions.
    - We also had the learners' and SPs' pre-briefs in a regular Zoom room before they signed off and went into Learning Space to access their events- which then gives access to the different virtual rooms.
  - When just using Zoom, recording encounters in breakout rooms. Only way was for locally, on the SP computer. We didn't do this due to FERPA.
    - Learning Space integration fixed this.
  - Testing security. Preventing cheating
    - Things we did
          Students had to take their camera and show their space. SPs/coordinators looked for notes, etc. During their post-encounters, SPs hid their video but stayed in the room with the learner so they could observe if it looked like the learner was using reference materials, etc. We also keep the recordings going.
  - Patient Fidelity-
    - The SPs are called on to share screens, etc. Thus, working this into keeping fidelity was challenging and at times, impossible- especially with physical exam. The patient comes out of "character" to engage the learner in discussions of what they would do IF they could do a physical exam.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*
   - Run through the entire process and document instructions for both SPs and learners
     – During run-throughs: take lots of screen shots for your instructions
   - Determine how you will communicate outside of your virtual platform in case of tech issues.
   - Have an extra coordinator on standby to trouble shoot-especially when learners are present
   - Trainings took longer than expected for technology.
     – Make sure SP computers are able to handle the technology requirements during this training.
   - For the Physical exam- determine if the students will use medical jargon or lay terms. We chose lay terms.
     – During training, have the patients verbally describe the physical exam- this seems to help them with remembering what they should expect to visualize the exam.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*
   - I do believe more history taking workshops will be done via tele-sims
   - Unless we come up with better exam security, I don't believe exam activities will continue
   - I think it has emphasized the difference between tele-sim vs. telehealth (which we can simulate…). I do think we will be simulating more tele-health in the coming years.
   - We will start to use more online training sessions-especially for first trainings of in-person sims and telehealth encounters.
   - More collaboration opportunities. We can now start using SPs in different parts of the world for learners to see different demographics.
   - Personally, now we need to start doing more interprofessional tele-sims.

6. *What else would you like to add on this topic that we have not asked you about?*

   Thanks for doing this work!

   Cory Krebsbach, BFA, CHSE
   Assistant Director, Standardized Patient Program
   Department of Healthcare Simulation
   Rosalind Franklin University of Medicine and Science
   North Chicago, IL

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

   There were zero online SP activities implemented prior to the onset of the COVID-19 pandemic.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

As institutions reeled from the announcement of stay at home orders and the immediate implementation of online delivery of simulation programming in response to COVID-19, there was an almost immediate rise to action within the Standardized Patient Educator community. Leading the charge, at least from my perspective, was Lou Clark who originated the Facebook discussion group, Simulation Online 2020. This open forum provided immediate access to discourse with colleagues around the world exploring delivery options for SP programming. Soon after the University of Minnesota M Simulation team presented one of the first online presentations on how to utilize teleconferencing modalities to structure and deliver SP encounters. The Association of Standardized Patient Educators (ASPE) has continually provided a sense of connected community by providing webinars, town hall discussions and online resources throughout the pandemic. Having guidance and leadership from these individuals and institutions helped propel our institution from "How do we do this?" into the realm of "It's possible and here's how".

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

   There is a significant amount of time that was needed to bring SPs up to speed in the utilization of teleconferencing technology. Extra time to initially survey each SP for technology accessibility, comfort level of usage, equipment performance, bandwidth, and connectivity requirements. This also meant certain SPs were not eligible for hiring due to limitations in technological access. Even with best laid plans and testing procedures in place, technology failings and potential user error without the ability to provide immediate hands on troubleshooting continues to provide challenges with each and every ongoing project.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

   Allow plenty of time for testing your activity prior to going "live". After completing SP and student technology training prior to your live date, schedule time to run a "mock event" with the SPs and any staff you may have involved with the event. Having a dry run alleviates a tremendous amount of stress and provides opportunities for SPs and staff to ask questions and troubleshoot prior to having students present.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

   I believe the implementation of online SP activities is just beginning and will continue to expand and inform the future landscape of SP Methodology. The efforts of so many, under great pressure, to deliver quality programming

is merely the tip of the iceberg. From rapidly adjusting previously tried and true delivery practices to exploring and sharing new innovations and expanding solutions is exciting to ponder as we move forward. To quote Olympian Michael Johnson, "Pressure is nothing more than the shadow of great opportunity."

6. *What else would you like to add on this topic that we have not asked you about?*

The astounding sense of community and support found within the SP Educator community is second to none. Our strength and pride is not only in the excellence of upholding best practices and providing the highest quality of human simulation to our learners, but it is also in our ability to communicate, to collaborate and hold each other aloft in times of pandemic or otherwise.

Tamara L. Owens, Ph.D., M.Ed., CHSE
Founding Director, Clinical Skills and Simulation Centers
Howard University Health Sciences
Washington, DC

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

Prior to COVID-19, I had no experience with SP activities online.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

First, my university, Howard University, had an online video conference platform when we transitioned to remote learning. Second, I did not succumb to fear. Third, I believed that it could be done. The SP Methodology was born out of an idea and the unknown. If you can visualize it, you can achieve it. Last, my phenomenal staff had to be on board. My fearlessness, belief, and vision would not have been executed if it were not for my staff.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

My greatest challenge was recording online activities. How can I record student activities that are confidential and can be saved on my server on campus? My solution was to train video recorders. To do this, I developed policies and procedures (FERPA compliant) as well as a confidentiality agreement for the video recording process.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

First, I would advise the SP Educator at this juncture to meet with an SP Educator who has implemented online SP activities. This meeting will provide insight as to how to design and execute as well as identify potential institutional challenges. Second, I would advise the SP Educator to meet with their team to share the vision and to discuss team member roles and responsibilities. There are similarities in roles but there are differences that will require staff to think about. Third, document all new policies and procedures for the online SP activities.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

SP Education will forever be executed online. Curriculum implications are identified clinical skills optimal for teaching and assessing online. Research implications are increased studies on online SP activities. Communication skills studies specifically nonverbal communication will increase.

6. *What else would you like to add on this topic that I have not asked you about?*

The SP Methodology has been consistent over the last 50 plus years. It is the highest of fidelity of simulation modalities which allows it to adapt and innovate healthcare education.

Jamie Pitt, MMHPE
Assistant Director of Education for Standardized/Simulated Patients
The University of Tennessee Health Science Center
Memphis, TN

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

At UTHSC CHIPS we have frequently held SP activities online to serve learners on our various campuses across the state. (Tennessee is huge, and we can't get everyone to Memphis for testing.) However, for these online events we would typically have the SPs come to campus so we could record onsite and provide tech assistance to the SPs.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

We surveyed SPs about their comfort level with different technology platforms and access to different devices. This information helped us plan for what might be possible. We needed a baseline idea about how many SPs had a device, and internet access bandwidth that would allow them to serve as an SP online. We knew we could teach them to use a video conferencing platform if they just had the equipment and internet access. We offered a couple optional low stakes online social events first (an SP Lunch and then a Happy Hour) to help us get an idea of how many folks could really do it. We wanted to backup the survey data by seeing it with our own eyes. This gave us the confidence cautiously to move forward with online SP events.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

    Internet access and access to technology is a privilege that not all our SPs have, especially in a city where the digital divide runs along poverty lines. A big ongoing challenge is how to offer online work in a fair way to SPs who do not have access to a device or internet access.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

    You **must** give yourself, staff, SPs, Faculty and Learners the grace to fail — things will probably not go exactly as planned. Acknowledge that we cannot control so many aspects of this situation, if something goes wrong it's *okay*. We can do it over again if need be. If something that we didn't expect occurs, we'll learn from it. Yes, we are all anxious about doing this for the first time, and we prepared to death, but it had to become our mantra and answer for everything: this is okay - we're all figuring this out together.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

    I'm excited about the future possibility of having a global pool of SPs to hire from! Even after things return to face to face, we will make training SPs to use an online platform a regular part of SP orientation and continue to have SP training sessions that were once in person online instead. Now that we see that it is possible, it only makes sense to continue. Why have SPs commute and pay for parking to achieve the same results in a more efficient and cost-effective way.

6. *What else would you like to add on this topic that we have not asked you about?*

    I'm curious about how this experience will (or should) impact the SOBPs from ASPE and INACSL, for example the domains on safety, or do there need to be additions for telehealth in case writing…

Ryanne Noel-Luttrell, BS, OTA/L
Simulation Laboratory Technician
Bellarmine University
Louisville, KY

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

    We had never implemented an activity online with SPs prior to COVID-19.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

    You guys!!!! Joe [Miller] allowed me to observe a SP encounter and it helped me tremendously!

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

    SP training with technology.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

    Practice. Practice. Practice. You must have patience. Zoom is a great platform to use with many possibilities.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

    I think this is here to stay. Our program is already starting discussions with implementing this style of activity into our curriculum.

6. *What else would you like to add on this topic that we have not asked you about?*

    I absolutely think that you guys are in the forefront of all of this. Your willingness to allow me to observe helped me create our first ever online SP encounter this past week. It went perfectly!! I am so grateful for that opportunity!

Gina Shannon (she/her), MAT
Associate Director, Clinical Skills Center
Emory University, School of Medicine
Atlanta, Georgia

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

    None. We had done remote trainings through Zoom and GoToMeeting, but no remote SP simulations.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

    Creativity, innovation, being okay with "good enough", a team willing to jump right in, flexible and trusting faculty, dedicated SPs, and Zoom.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

    The learning curve with Zoom, how to portray/relay the physical exam findings, (still a challenge) while remaining authentic to the simulation, knowledge about telehealth, and time.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

    Run lots of pilots and tests with your staff, SPs, faculty, and learners. Sit in the discomfort of not knowing if it will work. Always connect it back to the learning objectives. Give yourself and other's grace.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

    It already has with Step2 CS [being canceled in for academic year 2020–2021]. While it has limited testing

MD learners in the US, (I am interested to hear how other countries are managing testing)—it has expanded who we work with, the focus on communication-based simulations, and how learners' train. The think out loud model of learning is not a way medicine has been taught, trained, or performed. When learners are performing physical exams with SPs in a remote environment, they will need to be more clear on each step through speaking it out loud.

6. *What else would you like to add on this topic that we have not asked you about?*

How quickly SP Educators moved to action speaks to how agile the field is and can be. In two weeks, we had all the staff trained on how to train and run remote SP encounters, all our SPs trained on Zoom, and two remote SP encounters executed. I know we are not alone. This not only speaks to how agile we can be, but how creative, innovative, and team driven we are. We quickly figured out that none of this could happen without everyone on board and working.

Amber Snyder, M.S.
Simulation Program Supervisor
University of Pittsburgh, School of Social Work
The Pennsylvania Child Welfare Resource Center
Doctoral Candidate 2020, School of Education

Note The experience provided from these responses are coming from the social work field. To give context to the responses, the learning provided by my organization occurs under the umbrella of a University, however our learners are working professionals in the area of child welfare. Funded by an inter-governmental agreement between the University of Pittsburgh, Office of Children, Youth, and Families, and Pennsylvania Children and Youth Administrators, the Child Welfare Resource center is mandated to provide the certification series for caseworkers which was challenged by the pandemic. The individuals we work with to provide simulation activities are called Standardized Clients (SC), so that term will be used in lieu of SP.

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

Very minimal. The SCs who work for our organization are located statewide, so we have hosted online SC training and team meetings, but no events with stakeholders.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

The support of the SP community has been integral to our success. Learning how to navigate Zoom, considerations for making SCs comfortable in their space and online roles, and using technology has all been supported through webinars, resources, and connections with the SP community. Internally, we have had the support of our technology department and our leadership team to make decisions and strategize how to implement without interference-opening up the ability to be creative.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

One of the biggest challenges has been training all SCs to be comfortable with the technology associated with Zoom and ensuring all SCs had the devices needed to be able to simulate online. We were concerned that we would not be able to provide opportunity equitably if not all SCs had the devices to do the work. I advocated and was provided the opportunity to order Chromebooks for all SCs so that they were on an equal playing field to be able to receive opportunities.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

I think patience and grace with yourself and others as you learn the ropes. Knowing that there are going to be mistakes and technology glitches is important throughout. I also highly recommend a lot of practice sessions with all players involved. We have only 27 SCs, but contract with over 150 instructors and work with 67 different counties, who all come to the table with differences in style and need in an online environment.

Additionally, seek out support from others in the SP field. Watch what they are doing and learn from them. Observe their process, write them down, and adjust for your needs.

Finally, document everything so you have processes in place.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

We have already begun to create new curriculum that will always be held online, providing stakeholders with the opportunity to access simulation modules outside of the certification series. We anticipate simulations to continue to be held online as needed for the health and safety of stakeholders. The organization has also considered the possibility of running simulations online as needed for inclement weather, which often challenges our trainings.

We are also considering how we can utilize the online environment to provide more training and professional development opportunities for SCs to support role portrayal, standardization, and feedback.

I strongly believe much of our work will remain online and we will continue to explore the expansion of opportunities.

6. *What else would you like to add on this topic that we have not asked you about?*

One additional area we have really focused on since going online is the idea of de-rolling and what I have been calling de-spacing. All of the cases we run are higher in emotional state and effect because of the sensitive nature of our work, our SCs are portraying in roles involving intimate partner violence, grief and child abuse and neglect. De-rolling has always been important to ensure that SCs can walk away and safely be back to themselves. Asking SCs to portray these roles within their own homes has provided a need to consider how SCs remove themselves from the simulation space and make sure their home is theirs, not that of the character. As we move into the statewide launch of all of our simulations online, we are going to be continuously strategizing with SCs to ensure that support is there.

Anne E. Swanson, DMin, LMFT
Director of Medical Simulation
Western University of Health Sciences
College of Osteopathic Medicine of the Pacific
Pomona, CA

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

Our department at Western University of Health Sciences, Pomona/CA and Lebanon/Oregon, had some experience with using telemedicine for Team OSCE research across several states/with some other Universities, but not much.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

Our team got on Zoom, experimented, used the tools, practiced with each other first, then hired some SPs/coaches and had training sessions to see how it worked. We sent out a survey to see who needed some equipment from our lab and provided some laptops/headphones/etc. to those that wanted to work and needed more up to date equipment. We then ran some trainings/practice for students in groups. About this time U of Minnesota M Simulation put on their webinars and we realized we were about 80% ready. We learned a lot of tips/resources, best practices from those webinars- especially the first one, (Zooming with SPs).

To date we have run:

A. Trainings/practices with SP's and students- about 4 events

B. 2nd Year end of the year OSCE- 260 students in Pomona/100 in Lebanon-Summative

C. Advanced Communication drills (Angry encounter/Talkative patient) and debriefs-formative rescheduled from March 2020 for 1st year students/shared

Student load of 360 students between both campuses to accomplish in one and a half days-new for us to do this but we could because of Zoom capabilities-Formative experience

D. Didactic OSCE testing for 3rd year students (rescheduled from March 2020) going on now-Summative event

E. Didactic OSCE testing for 3rd year students June-Summative event scheduled for June 15–18

F. CPE- Summative event for 2nd year students before they go on rotation-Scheduled for July 8–13

Our school is doing everything virtual through at least Sept 8th-so we will be starting the new school year with events for first through fourth year students through remote events/and coordinated lecture/demos, etc. with faculty and are in the planning stages now.

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

A. Instability of some SPs and some students with their internet connections/and delay in communications.

B. Variety of tech abilities and comfort in utilizing Zoom/online resources of both SPs and students (we have some SPs who were not comfortable using Zoom and/or did not have a quiet/dedicated place in their home to be able to work with us. They are on hold for now until we get back on campus).

C. Limitations in doing the Physical Exams-researching more options now. Mostly we have just been giving the students the findings and having them narrate that they would do a physical and document on SOAP note what tests/things they would do for the physical.

D. Due to "the Driver" being the only one that can move people around-we have limited our student/SP groups to between 12–15 of each, where in the lab we usually would have groups of 20–22. Therefore, the events take longer and Zoom fatigue can set in for staff. We try to break the SP's into am/pm groups.

E. Lacked knowledge in the beginning that the one who originates the Zoom set up cannot have two Zoom lines/meetings at the same time. We did this for a debriefing room and kicked EVERYONE off the event in one of the first practices we did. DISASTER!

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*

• Practice in Zoom with your staff/SP's first so you really understand and know it

• Have as many staff as you can work and divide up roles

• Zoom Driver/Host-assign one person who is good/fast at assigning rooms and moving people

- Assign SPEs or staff as floaters who can move into the rooms if SP/learner connection fails
- Make sure to have an emergency phone number to call for students
- Provide directions on using/achieving best connection possibilities for Internet and Zoom/other online platforms.
- Be mindful of appearance, (e.g. dress professionally and clean up background)
- Talk a little more slowly than usual and pause to account for lag time

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

I believe we will have some form of remote SP events included in the curriculum from now on, (as opposed to pre-COVID-19). This is so much a part of how medicine is operating now-and will continue to, especially for very sick people so as not to infect others on in-person visits to doctor's and other healthcare provider offices.

6. *What else would you like to add on this topic that we have not asked you about?*

A big thank you to Lou for initiating the Simulation Online 2020 Facebook page, (on March 13, 2020). I have yet to read all of it and gather all the knowledge and resources but plan on doing more reading in the next few weeks. Thank you also to the amazing M Simulation staff at the University of Minnesota for the wonderful webinars!

Amelia Wallace
Senior Standardized Patient Educator
Sentara Center for Simulation and Immersive Learning: Professional Skills Center
Eastern Virginia Medical School
Norfolk, VA

1. *What was your experience of implementing SP activities online prior to the COVID-19 pandemic?*

My experience implementing SP activities online prior to the COVID-19 pandemic was limited. We had small bursts of creating online modules within Blackboard or on other platforms, but no efforts really got off the ground. On reflection, this was most probably because we were focused on (and preferred) face-to-face interaction.

2. *What helped you implement SP activities online during the COVID-19 pandemic?*

Three things seemed to help implement online SP activities: Leadership at our center, maintaining the SP community (as best as we could), the SP Educator and simulation community in general.

Leadership.

I work in a center with a large leadership team (Jenn Styron, Alicia Wolters, Bob Armstrong, Catherine Neighbors & Pam Cobb) who quickly identified which online platform would work best for the most amount of people and who devised a strategy that consisted of small-scale implementation (e.g. the first weeks our online sessions were done with the SPs coming on-site to ensure consistency of implementation followed by a transition to fully online sessions). Additionally, they reimagined the logistical flow of an event utilizing additional full-time staff as room administrators and identified auxiliary support resources to help maintain close communication within events (e.g. Slack). I cannot say enough how this leadership maximized the quality of what the SP Educator team was able to focus on regarding maintaining quality of simulation and assessment. The SPE team could still focus on the QA part of our jobs because our center's leadership took on the logistical work, (including being the last people at the center to transition to work from home status).

Maintaining the SP community.

Individual connection with the SP community by way of phone calls to check-in at the beginning and end of stay at home status (the SP Educator team—four individuals—called each SP to identify support deficits). We also had hour-long weekly online "lounge" sessions to maintain a sense of community. This also allowed us to continue informal interactions that were helpful to maintain morale with full time staff and SPs.

The SPE/simulation community.

Webinars have been very helpful as a support resource—especially, for people to know that they are not alone. I am thinking specifically about the first meeting on transitioning to Zoom by the University of Minnesota. It was empowering!

3. *What have your greatest challenges been as you have implemented SP activities online in the COVID-19 pandemic?*

The biggest challenges I have experienced are related to the inconsistent comfort levels and access individuals have to online platforms. This has been of specific concern related to some SPs who have challenges navigating online platforms, (unfortunately, some aren't able to work and have been impacted financially) as well as those who don't have access to high speed internet and are unable to work.

Our center has shared resources (e.g. laptops) but this has not been a solution for everyone. It begs the question: Can we afford to lose the narrative and perspective of those individuals most impacted by this pandemic? We strive to be diverse and inclusive as a center. This has limited that pool.

Resources. It takes more to do less. Specifically, more people. This has limited what we are able to provide to faculty.

Summative assessment is also more challenging because we have no baseline for online interactions.

4. *What is one or a few tips you have for SP Educators who are seeking to implement online SP activities but who have not done so yet?*
   - Contact your SPs and survey them to truly get a read on comfort level. Be prepared to reassess and adapt to changing needs.
   - Have multiple people booked as back-up (back-up SPs, back-up administrators) to account for connectivity challenges.
   - Have mandatory sessions for learners to orient themselves with the online platform prior to the event.

5. *How do you think this work will change the scope of SP Education in the coming weeks, months, years?*

   I believe we have discovered that the adaptation to online sessions is more manageable than we thought. I anticipate we will train SPs online, (at least in part) in the future even for face-to-face events. We will be positioned in such a way as to leverage the best aspects of online and face-to-face sessions to maximize the learning potential within the simulation.

6. *What else would you like to add on this topic that I have not asked you about?*

   I am concerned about maintaining the importance of feedback from the individual SP and maintaining their voice within simulation. One big strength of SP methodology is the potential for true inclusivity of the patient's perspective within medical and health professions education; this includes the SP's opinion of the interaction. I have been to many sessions and asked, "What did the SP think?" only to hear, "Oh, we did not collect data from them."

   With a focus on high-stakes, summative assessment, this message can be lost when filtered through a post-positivist paradigmatic lens that prioritizes numerical consistency over the subjective impressions of an individual. I am concerned that a move to online sessions, left unchecked, could favor leaving the actual patient out of the conversation.

Conclusion: Call to Action – Collaborative Community of Practice

Looking ahead, while we hope and anticipate a future in which we can work safely on-site at our simulation facilities, we know that our industry will never be the same again. The expansion, innovation, and prevalence of **human simulation online** during this time will forever change our profession. So, it is imperative that we look to this phenomenon as one filled with opportunity rather than with regret and yearning for pre-COVID times. Those times are gone. We must continue reimagining our processes, SP-based curricula and our community of practice as it necessarily evolves—even more collaboratively.

We know, up to this point in time, that the SP Methodology has succeeded because of its flexibility and ability to be situationally responsive in addressing evolving curricular challenges with innovative means. In addition, at this point in time, SP Educators must further collaborate with stakeholders by cultivating our leadership skills—namely leading from an assertive, proactive place. This necessitates an approach that emphasizes anticipating and identifying needs in addition to being situationally responsive to curricular challenges brought forth by our stakeholders, or from outside challenges—in this case—a global pandemic. As we are experiencing now, in this time of expanding **human simulation online**, assertive proactive action on our part as a profession is not only meeting curricular challenges with innovation but also ensuring increased safety for our SP Educators and SPs who are working remotely [20]. This highly collaborative model is succeeding as the needs of all parties are met—the educational needs of our stakeholders including our leaners and the safety needs of our human simulation professionals including and especially our SPs.

This time of online simulation expansion not only gives us a new set of paintbrushes to work with, but also a different set of choices to make regarding how we paint authenticity in our simulations. How and what do we choose to emphasize? For fidelity we make choices routinely about what to include. This must be done as part of a collaborative educational design process in which we, SP Educators, share our expertise in full partnership with our stakeholders while advocating for our methodology which includes prioritizing our safety [3]. SPEs must also advocate, lead, and innovate from a collaborative place which will best support our profession in creatively meeting emerging needs in healthcare education and improve the quality of our contributions and ultimately the SP Methodology (Human Simulation). Advancing the future of our human simulation profession depends on it. We must all do our part and we leave you with this question, which is really a call to action:

How will we continue moving forward to collaboratively advocate for and to advance human simulation and our profession, and where will this journey take us in partnership with healthcare industries and beyond?

Gayle, further thanks to you for making your vision the reality that is this book. You are a trailblazing educator doing the job with grace, style, and kindness—thank you for all you have taught us, have passed on here and through the years, and for your contributions yet to come!

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