

ORIGINAL RESEARCH ARTICLE

# The lived experience of clinical instructors as simulated patients: a qualitative study

Nicki Silberman\*, Caitlin Casella, Michael Lam and Fanny Lin

Hunter College, Department of Physical Therapy, City University of New York, New York, NY, USA

## Abstract

**Purpose:** Simulated patients (SPs) during simulated learning experiences (SLEs) are typically played by a trained actor, potentially requiring significant training time and cost. The participating university's physical therapist (PT) education program recruits clinical instructors (CIs) to play the SP role during SLEs that represent various learning environments (in and out patient). As there is limited literature exploring the SP experience, especially from a clinician perspective, the purpose of this qualitative inquiry was to describe the lived experience of CIs as SPs.

**Methods:** This qualitative inquiry used an inductive approach to identify the experiences of CIs as SPs. Eight CIs participated in an individual semi-structured interview to gather their perspectives about their experiences playing the SP role during SLEs. A constant-comparative approach was used to develop codes, which were further collapsed into categories and main themes. Member checks and peer review were conducted to establish trustworthiness of the findings.

**Results:** Qualitative analysis revealed four main themes: (1) Becoming the Patient, (2) A Window into the Student Experience, (3) We See It Every Day: Using Experience to Guide Performance, and (4) Giving Back Through Teaching.

**Conclusion:** Being an SP was an enjoyable experience that allowed CIs to participate in teaching and give back to their profession. Empathy gained for both patients and students through the SP experience influenced the CIs' own clinical practice and may enhance CIs' preparation for student clinical experiences and improve CI mentoring skills.

**Keywords:** *Simulated patients; Clinical Instructor; Physical therapist; Clinical education; Empathy*

Received: 17 August 2021; Revised: 11 August 2022; Accepted: 12 August 2022; Published: 26 September 2022

Simulated learning experiences (SLEs) are structured to develop students' knowledge, skills, and attitudes necessary for success in their chosen field by providing opportunities to respond to realistic situations in a simulated environment.<sup>1-3</sup> These experiences prepare students for clinical practice by developing skills in communication, reasoning, time management, and self-efficacy.<sup>3-6</sup> Physical therapist (PT) educators often create high fidelity environments using simulated patients (SPs), rather than manikins, who actively participate in SLE to mimic physical therapy practice.<sup>7-10</sup>

An 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... 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'.<sup>1,11</sup> SPs may be actors, educators, students, patients, or clinicians. Training SPs can take 2 h per experience,<sup>12</sup> increasing cost,<sup>13</sup> especially if actors are naïve to the nuances required in a physical therapy simulation. Using PT clinical instructors (CIs) as SPs may deliver a cost-effective program because they have background knowledge that decreases training time. Systematic reviews have explored SLE in PT education<sup>3</sup> and the use of SP in PT education<sup>7</sup> but do not report CIs' experiences as SPs.

The SP perspective has been described in other disciplines. A survey of SPs across 87 medical schools measured SP characteristics, working conditions, and attitudes, including satisfaction and personal benefit.<sup>14</sup> Surveys also measured comfort levels with cases and giving students feedback. The SPs described the greatest challenges as keeping up with consecutive SLE and providing effective student feedback, especially when student

performance was poor.<sup>14</sup> Another investigation described SP experiences, reporting common themes as becoming the SP and preparing for and performing the role, but did not explore the impact of the experience on the SPs.<sup>15</sup> A nursing program conducted a qualitative investigation of drama students in the SP role for a mental health simulation.<sup>16</sup> Three themes describe their experience: (1) SPs gained a better understanding and empathy for nursing students; (2) Participating in the SP role challenged critical thinking skills through the need to authentically portray a patient with a mental health issue; (3) The experience was enjoyable, though ‘emotionally exhausting and frustrating at times’.<sup>16</sup> The impact of being an SP for clinicians, however, remains elusive.

Similar findings were reported when senior PT students portrayed patients for junior students.<sup>17</sup> The senior students gained insight into the patient experience and increased confidence providing feedback and being a peer mentor. Furthermore, they brought knowledge from patient encounters during recent clinical experiences and had unique personal insight into why a student might struggle with performance.<sup>17</sup> It is unknown if similar benefits may be experienced by CIs as SPs.

One Doctor of Physical Therapy (DPT) program described the utilization of SLEs in a CI professional development workshop.<sup>18</sup> During the workshop, the CIs observed students during SP encounters and provided students feedback. The experience allowed CIs to identify gaps in student knowledge and improve their own teaching skills. While this approach to CI training increased their involvement in the academic program, it is unknown if the takeaways from this experience would differ with CIs in the SP role.

The DPT program at the participating university recruits CIs as SPs during SLE. No prior evidence was found that explores the CI’s SP experience. The researchers questioned if CI participation in the program could impact their perspective or experience as a clinician or educator. The purpose, therefore, of this qualitative inquiry was to describe the lived experience of CIs as SPs in entry level PT education.

## Methods

Phenomenological methods were used to answer this research question as the investigators sought to understand the CI-SP’s experience from their own perspective.<sup>19</sup> This qualitative inquiry used an inductive approach to identify the experiences of CI-SPs.<sup>20</sup> A recruitment email was sent to all CIs ( $n = 42$ ) who had participated as SPs in the program in the previous 3 years. Interested participants contacted the researchers via email to schedule a one-on-one interview. This study was approved by the participating university’s Human Research Protection Program, and all participants completed informed consent prior to participation.

## Program description

CIs were recruited from local clinical sites to play the SP during both acute care and out-patient SLEs throughout the curriculum. Simulated cases were provided to the SPs 1 week prior to the SLE. The instructor met with the SPs immediately prior to each SLE for 15–30 min to review cases as a group and ensure standard case portrayal. Consistent with the Standards of Best Practice for Simulation Design, all SLEs included a prebrief, SP encounter, and debrief.<sup>21</sup> The debriefings followed established recommendations for debriefing for meaningful learning<sup>22</sup> following an advocacy-inquiry model.<sup>23</sup> Following outpatient SLEs, SPs provided direct student feedback focused on communication skills and building patient rapport.<sup>24</sup> Following acute care SLEs,<sup>25</sup> the instructor gathered SP input for inclusion in the faculty-led debriefing.

## Data collection

All participants ( $n = 8$ ) completed a demographic survey prior to the interview, including age, sex, entry level degree, years of experience as a PT and CI, and information related to their SP experience (Table 1). Two researchers conducted the semi-structured interviews; one led the interview following an interview guide (Table 2), and the other assisted by asking probing questions as needed to clarify the participant’s responses and taking field notes to capture any non-verbal cues and help identify main points of the conversation. The interviewers were PT students who had no relationship with the participants; the faculty advisor did not participate in the interviews to minimize potential bias. The advisor trained student researchers in conducting qualitative interviews through both observation and practice including role-play interviews and a pilot interview with a CI-SP who did not participate in the study. Following the pilot interview, modifications were made to the interview guide to improve the clarity and flow of the questions. Interviews lasted approximately 30 min and were audio-recorded, transcribed, and de-identified using pseudonyms. Transcriptions were emailed to each participant to complete a member-check, requesting them to review the transcript, and confirm or correct the data.<sup>26</sup>

## Data analysis

Microsoft Excel (2008) was used to analyze descriptive data. An inductive approach to the qualitative data analysis was implemented.<sup>20</sup> A constant comparative approach was used to compare one participant’s interview to another, identifying similarities that could be coded using the same terminology or categorized under a new code.<sup>20</sup> Two student researchers separately reviewed each transcript, highlighting key points and developing a list of codes that represented the participant’s experience. Exemplary

*Table 1.* Demographic data for clinical instructor-simulated patient participants

Participant/ Pseudonym	Age	Years as a practicing PT	Years of experience as a CI	Number of experiences as an SP	Sex	Entry-level/Highest earned degree*
1/Sophia	32	7.0	6.0	2	Female	Doctoral
2/Amelia	53	29.0	4.0	1	Female	Masters
3/Liam	29	6.0	4.0	2	Male	Doctoral
4/Mia	28	3.5	2.5	3	Female	Doctoral
5/Angel	29	4.5	3.5	5	Female	Doctoral
6/Martina	35	11.0	10.0	2	Female	Doctoral
7/Charlotte	41	17.0	16.0	5	Female	Masters
8/Paula	39	16.0	10.0	2	Female	Doctoral
Range	28–53	3.5–29	2.5–16	1–5	–	–
Average	35.75	11.75	7.0	2.75	–	–
Total	–	–	–	–	7 Female 1 Male	6 Doctoral 2 Masters
Percent	–	–	–	–	87.5% Female 12.5% Male	75% Doctoral 25% Masters

PT, Physical Therapist; CI, Clinical Instructor; SP, Simulated Patient.

\*Entry-level and highest earned degree data were the same for all participants.

statements were drawn from each transcript to support the codes. The researchers met after their independent review of each transcript to develop a list of agreed-upon codes for that interview. They compared codes from the second interview to the first, modifying and adding codes to the list as appropriate. Codes from the third interview were compared to the growing list of codes, and so on, until data saturation was achieved. Data saturation was determined when no new codes emerged from subsequent interviews.<sup>27</sup> Two additional interviews were then conducted to confirm data saturation. The faculty advisor was not involved in this step of data analysis to further minimize potential bias due to their prior experience with the participants. After the initial analysis was completed, the research team worked together, including the faculty advisor, to sort and collapse the final list of codes into categories that captured common concepts. Those categories were further collapsed into themes that represented the CI-SP experience.

A peer reviewer with extensive experience in qualitative research and healthcare simulation, who had no prior knowledge of the study or relationship to the participants, confirmed that the thematic analysis was unbiased and accurately represented the data. The reviewer was provided the transcripts along with the thematic analysis and asked to determine if the themes were supported by the data, provide any further observations that the researchers may have excluded, and identify any contradictory data. Neither the peer reviewer nor the research team identified contradictory evidence or negative cases in the data. The member checks and peer review provided methodological rigor as suggested for establishing trustworthiness and credibility.<sup>28</sup>

## Results

Demographic data for the eight CI-SPs who participated in the study are presented in Table 1. Qualitative analysis revealed four primary themes: (1) Becoming the Patient, (2) A Window into the Student Experience, (3) We See It Every Day: Using Experience to Guide Performance, and (4) Giving Back Through Teaching. Supporting exemplars are provided in Table 3.

### *Theme 1: Becoming the patient*

The SP experience provided CIs with a window into a patient's perspective, as they described stepping into the patient's shoes. The simulated environment, being dressed in a hospital gown, and physical interaction with medical equipment gave them a feeling of actually being the patient. Participants shared a sense of vulnerability that arose from simply dressing for the role. Being tethered by medical lines restricted their mobility, and they expressed an understanding of the loss of independence patients may experience.

This perspective allowed the SPs to develop empathy for their own patients. They described gaining a better understanding of the patient experience, even describing details like appreciating how a patient may feel when asked to share personal information with a healthcare provider. This is something participants admitted they had not previously considered.

### *Theme 2: A window into the student experience*

Becoming the patient allowed the CI-SP to be a direct part of the students' training prior to their clinical experiences and provided CIs with a unique insight into the students' level of preparation. The CIs shared that they

*Table 2.* Interview guide

I see that you have participated in (X number) simulated learning experiences with the Hunter College PT students. Please tell me what those experiences were like.

- Possible cues:
  - Did you participate in the acute care or outpatient simulation experiences?
  - Tell me a little more about your role and what you needed to perform.

Could you please describe the preparation process that you had before playing your role as an SP?

- Possible cues:
  - What did you do to prepare for the role you were assigned?
  - What, if any, training or instruction did you receive?

I want you to take a moment to visualize when you were in the room, set up as the patient, and waiting for the student to enter the room. Tell me what that felt like for you.

Now think about the actual session, while the student was working with you as the patient. Visualize yourself lying in bed or sitting in the room. Tell me what that experience felt like for you.

- Possible cues:
  - Did you interact with the students verbally, or physically, or both?
  - How did you feel about the different types of communication? Did one make you feel more at ease? Or uncomfortable in any way?

What, if anything, really stuck with you from your experience as an SP? Playing the role of a patient, was there anything that stood out or something you took away from the experience?

Can you describe anything during the simulation that might have made you uncomfortable, physically or emotionally, as an SP?

- Possible cues:
  - If yes, please tell me a little more about that. How so? Why?

What did you like or dislike about your experience as an SP?

Would you participate as an SP again? Why or why not?

Would you recommend other clinicians to be an SP? Why or why not?

What are your thoughts on using actors versus clinicians to play the patient role for future PT simulated learning experiences?

What, if any, suggestions do you have to improve the experience for future SPs? Just to clarify – not the learning experience for the students, but your experience as an SP.

Were there any particular situations or interesting moments that stood out to you?

After the simulation, were there any further thoughts you shared with your coworkers or other clinicians about the experience(s)? Was there anything you can remember talking about right afterward?

What else would you like to share with me about the experience that we have not discussed yet?

PT, Physical Therapist; SP, Simulated Patient.

had previously held general expectations for student competencies prior to clinical experiences, and the SP experience provided a more accurate understanding of student preparation as well as an appreciation for the students' perspective during patient interactions.

**Subtheme 2A: Understanding student knowledge and knowledge gaps**

Understanding students' knowledge and gaps in their learning is paramount to becoming an effective CI. The SPs were able to bridge classroom and clinical learning environments by having a CI mindset while playing the patient during these simulated experiences. The CIs observed the students' skill level performing tests and measures as well as their ability to make clinical decisions in uncertain situations (e.g. how well students responded to changes in hemodynamic status). The CI-SPs described how they used this knowledge and experience to prepare for upcoming clinical experiences.

**Subtheme 2B: Understanding the student perspective**

Observing the students through the SP role provided a window into student behavior, emotions, and professional competency. Participants described how they recognized the students' nervousness and empathized with the student, remembering how they felt during their own education and clinical experiences. The CIs were sensitive to student anxiety that may impact clinical learning and reported cautiously monitoring their actions as a patient to make sure the students could follow along.

**Theme 3: We see it every day: using experience to guide performance**

The CIs recounted how they relied upon their clinical knowledge and experience to portray patients during the simulations, drawing upon personal experience treating a patient with the same diagnosis as the simulated case. They related how it felt natural and easy to portray familiar cases that they saw regularly in their own clinical practice.

Table 3. Supporting exemplars for thematic analysis

Theme	Exemplars
<b>Theme 1: Becoming the patient</b>	<p>... to flip my experience and make me feel that my role is just different because I'm the recipient of the help... as soon as that gown went on and the tape went on me and those little, you know, non-slip socks - in the hospital room too... being in the gown- I mean soon as you put a gown on I think that sort of changes everything. It's like being in the gown and my role was that of the patient and I felt like that. I didn't feel like the physical therapist wearing a gown and I really felt all of a sudden like I was the patient. (Amelia)</p> <p>It made me realize a little bit more the patient side of things - for example the patient that was intubated not being able to speak, you know, having to use hand gestures and expressions to get the therapist's attention... Just more from the patient experience it was interesting just to be hooked up to all the lines and realizing that, I really can't - it's hard for a patient to like even move because you're just attached to so many things. (Angel)</p> <p>You gain sympathy for your own patients like... wow, you know I really shouldn't be upset when someone tells me oh I don't want to do therapy today because like if you're connected to 100 lines and you had a tube in your mouth and someone comes in hey, let's get up and walk, I get that. You know, then you start getting all these emotions, like feelings and understanding when you're on the other end. (Mia)</p> <p>I could imagine that the patient would feel very scared or anxious because they're being exposed to- now they're going to be expected to do some sort of exercise or some sort of activity with the physical therapy and they have a tough time expressing whether they're in pain, whether they feel like they're going to fall, whether they- you know what those type of things. (Angel)</p> <p>It put you in the mindset again of a patient. I think also is a good way to think about, realistically, what they're willing to share with a clinician. One of the cases was like you're a little hesitant giving the information and so when you put yourself in those shoes that someone's at: you're trying to get information out of me and I'm trying to be like I don't want to give it to you. It kind of you really puts you in the patient's eyes again. (Sophia)</p>
<b>Theme 2: A window into the student experience</b>	<p><b>Subtheme 2A: Understanding student knowledge and knowledge gaps</b></p> <p>okay - how prepared is this particular student to go out on their ortho affil? and even being like a CI myself, I could kind of see like okay, where are things that maybe they need to work on. I think it helps us to also see kind of like where the students are in terms of their learning too. Because sometimes we have students coming in and we have like certain big expectations and sometimes you can see that they need a little bit of nudging along or based on how you see them perform and be, like in the interview portion kind of their nerves and it helps us understand a little bit more how to build those relationships and the interactions with students.</p> <p>Honestly, it helps me as a CI... I think it helps me to understand like if I get a student that never had an inpatient affiliation, how can I address some of the things that might be going through their mind. (Liam)</p> <p><b>Subtheme 2B: Understanding the student perspective.</b></p> <p>I felt really bad for the students that were nervous. I don't know why they were nervous... They were just very nervous and I felt really bad so I was trying my best to put them at ease. (Mia)</p> <p>I didn't want to throw [the students] off because I remember doing something like this when I was a student. (Sophia)</p>
<b>Theme 3: We see it every day: using experience to guide performance</b>	<p>I based it on my clinical experience because when I do see patients it is in acute care or inpatient rehab. (Amelia)</p> <p>I just pull from... patients with that same diagnosis. (Martina)</p> <p>The only thing that I felt like really was challenging or like out of my comfort zone like actually pretending to be a patient without actually having the history of knowing what a patient actually goes through (Liam)</p>
<b>Theme 4: Giving back through teaching</b>	<p>I enjoy teaching you know, I enjoy being a part of that to help people learn in a hands-on kind of environment and to bring my clinical experience that I do have in the acute care setting to like to a group of students who are not quite there yet. (Charlotte)</p> <p>I love teaching, one of my other career choices was becoming a teacher. The teaching I like, students are eager to learn and are motivated. I have never had a student come into the lab not being serious. They really want to work on their own skills and want to figure out Oh I only have 30 minutes what can I do? those are the reasons why I would do it again. (Paula)</p> <p>...giving them feedback and seeing the light bulb go 'oh yeah, I should have done that,' ... I saw the eagerness in the student's eyes and wanting to learn and, um, that was my favorite part. (Martina)</p>

Conversely, some SPs encountered difficulty getting into character when assigned cases with diagnoses that they were less familiar with or that were outside their area of expertise, for example, an outpatient therapist simulating a patient in the acute care setting.

#### Theme 4: Giving back through teaching

The CI-SPs expressed their enjoyment for teaching and their sense of duty to give back to the profession. They discussed what it meant to be an educator and why it was important to them that students have the best learning

experiences possible. The SLEs provided CIs an opportunity to use their clinical expertise to show students what clinical encounters can be like in a way that expands beyond traditional classroom instruction. The participants also enjoyed providing feedback to students, and they perceived the students as eager to learn from practicing clinicians.

## Discussion

While previous reports have described elements of the SP experience,<sup>14–16</sup> this is the first to explore CIs' perspectives as SPs. The CIs enjoyed the opportunity to participate in SLE and saw it as a way of giving back to their profession. They described how they drew upon personal clinical experience to facilitate portraying the patient and felt most comfortable with cases they were familiar with. The CI-SPs expressed that they felt vulnerable playing the patient as they described an emotional experience of stepping into the patient's shoes. They also gained insight into the student experience by interacting with students in the simulation environment. Participants expressed a sense of understanding of the student's educational journey, remembering what it was like to be a beginner at clinical skills that have become second nature to the seasoned PT. They identified students' knowledge gaps by observing students prior to clinical experiences, facilitating their ability to prepare for their role as a CI.

Through participation as SPs, these CIs developed empathy for patients and students, as presented in themes 1 and 2. Empathy in health care has been defined as 'a predominantly cognitive attribute that involves an understanding of the patient's experiences, concerns, and perspectives, combined with a capacity to communicate this understanding and an intention to help'.<sup>29</sup> The CI-SPs gained insight into the vulnerability a patient may feel. They revealed gaining empathy for their own patients as this understanding was brought back to their workplace to help build rapport and improve patient care.

A systematic review explored teaching empathy through SLE.<sup>30</sup> Synthesizing findings from research that had learners act as a healthcare professional or patient, the authors concluded that students in the patient role increased their empathy by working on their communication skills and understanding the feelings from the patient's perspective.<sup>30</sup> Results of this study provide emerging evidence that there may be a similar benefit for CIs, thereby demonstrating that the SLE may lead to improved patient care by both learner and CI-SP, as empathy has been previously demonstrated to improve patient care outcomes.<sup>31</sup>

The CIs also gained empathy for students through their SP experience. They were reminded of their own student experience and gained a deeper appreciation and understanding of the students' perspective. They expressed

feeling the students' nervousness and wanting to support them. Their enriched understanding of the gaps in student knowledge at the current level in their education aligns with previous findings<sup>18</sup> and allowed them to empathize with a student who experiences difficulty in the clinic.

These findings introduce a potential impact of CIs as SPs on improved clinical instruction. Exposure to students at their preclinical stage may help CIs understand the students' experience during their early clinical exposures. Understanding students' thoughts and emotions in those moments can provide CIs with a valuable perspective of student learning. Similar to previous reports, CI involvement in the students' academic experiences is valuable for both student and CI,<sup>18</sup> as the CIs used knowledge learned as SPs in preparation for future student clinical experiences. This is an area for further investigation.

Themes 3 and 4 provide support for using CIs in the SP role to deliver an efficient simulation program that benefits the program and CIs. Participation in SLE provided another way for CIs to meet their core value of duty to serve their profession.<sup>32</sup> The Association of Standardized Patient Educators outlines Standards of Best Practice to guide educators on integrating SPs into learning and assessment environments.<sup>33</sup> Within the SP training domain, the authors discuss how SPs may give feedback on learner performance from the patient perspective, often specific to the affective domain, providing a uniquely collaborative relationship for learning.<sup>33,34</sup> This opportunity for CIs to provide feedback to pre-clinical students allowed them to be a valued part of the students' education experience, allowing them to give back to their profession. As not all SPs in this study provided direct learner feedback, this topic warrants further exploration.

The CIs in this study drew upon their patient care experience and knowledge of student performance expectations to accurately portray the patient and enrich the student experience. It is recommended that CI-SPs portray populations in which they have work experience, allowing a more fluid adaptation to their roles than actors who require extensive training.<sup>13</sup> Although not the aim of this study, the authors' experience suggests that this model of simulation may be more cost effective than hiring actors or using other students as the CIs did not require extensive training time typically required to train SPs<sup>12</sup> (30 min versus 2 h). Having CIs as SP may provide an efficacious model to make SLE more accessible in PT education, benefiting both program and clinician. Questions regarding the effectiveness and costs of running the simulation program with CI-SPs versus other models should be investigated.

## Limitations

These results may not be generalizable to SPs in other programs. Though a small number of CI-SPs participated, data saturation was achieved. Two participants were

program alumni and may have been biased in their desire to give back to the program in addition to knowledge of the program's curriculum that may have influenced their perspectives. It is unknown if this experience impacted patient care, if CIs who participated as SPs more frequently than others may have different experiences, and if those who portrayed patients in acute versus outpatient simulations may have different perspectives. Future investigations may explore differences in SP experiences when portraying different simulated scenarios, i.e. acute care versus outpatient cases.

### Conclusion

This qualitative inquiry provides insight into CIs' experiences as SPs. Being the SP was an enjoyable experience that provided CIs an opportunity to participate in teaching, give back to their profession, and share their years of experience with students. Empathy gained for patients through the SP experience may influence CIs' clinical practice, demonstrating how the SLE have potential to impact patient care. In addition, the CI's greater understanding of the students' experience and preparation may enhance CIs' preparation for student clinical experiences and improve CI mentoring skills.

### Acknowledgment

The authors thank Grace Ng, PhD, CNM, RN, for her peer review.

### Conflict of interest and funding

The authors have no conflicts of interest. No funding.

### Ethical statement

Hunter College Human Research Protection Program Protocol Number 2019-0492.

### References

1. Lioce L, Lopreiato J, Downing D, et al. Healthcare simulation dictionary. 2nd ed. AHRQ Publication No. 20-0019. Rockville, MD: Agency for Healthcare Research and Quality; 2020. doi: 10.23970/simulationv2
2. Meakim C, Boese T, Decker S, et al. Standards of best practice: simulation standard I: terminology. *Clin Simul Nurs* (2013) 9(6S): S3–11. doi: 10.1016/j.ecns.2013.04.001
3. Mori B, Carnahan H, Herold J. Use of simulation learning experiences in physical therapy entry-to-practice curricula: a systematic review. *Physiother Can* (2015) 67(2): 194–202. doi: 10.3138/ptc.2014-40E
4. Silberman N, Litwin B, Panzarella K, et al. Student clinical performance in acute care enhanced through simulation training. *J Acute Care Phys Ther* (2016) 7(1): 25–36. doi: 10.1097/JAT.0000000000000021
5. Ohtake PJ, Lazarus M, Schillo R, et al. Simulation experience enhances physical therapist student confidence in managing a patient in the critical care environment. *Phys Ther* (2013) 93(2): 216–28. doi: 10.2522/ptj.20110463
6. Macauley K. Evaluating changes in clinical decision-making in physical therapy students after participating in simulation. *Health Prof Educ* (2018) 4(4): 278–86. doi: 10.1016/j.hpe.2018.06.001
7. Pritchard SA, Blackstock FC, Nestel D, et al. Simulated patients in physical therapy education: systematic review and meta-analysis. *Phys Ther* (2016) 96(9): 1342–53. doi: 10.2522/ptj.20150500
8. Cunningham S, Cunningham C. Exploration of a simulation-based learning experience in critical care: the use of standardized patients for early mobility training. *Cardiopulm Phys Ther J* (2020) 31: 74–85. doi: 10.1097/CPT.0000000000000114
9. Miale S, Silberman N, Kupczynski L. Classroom-based simulation participants and observers perceive high psychological fidelity and improved clinical preparedness. *J Phys Ther Educ* (2021) 35(3): 210–17. doi: 10.1097/JTE.0000000000000190
10. Paparella-Pitzel S, Edmond S, Chris DeCaro C. The use of standardized patients in physical therapist education programs. *J Phys Ther Educ* (2009) 23(2): 15–21. doi: 10.1097/00001416-200907000-00003
11. Barrows HS. An overview of the uses of standardized patients for teaching and evaluating clinical skills. *Acad Med* (1993) 68(6): 443–3. doi: 10.1097/00001888-199306000-00002
12. Black B, Marcoux BC. Feasibility of using standardized patients in a physical therapist education program: a pilot study. *J Phys Ther Educ* (2002) 16(2): 49–56. doi: 10.1097/00001416-200207000-00008
13. Cleland JA, Abe K, Rethans JJ. The use of simulated patients in medical education: AMEE Guide No. 42. *Med Teach* (2009) 31: 477–86. doi: 10.1080/01421590903002821
14. Abe K, Roter D, Erby LH, et al. A nationwide survey of standardized patients: who they are, what they do, and how they experience their work. *Patient Educ Couns* (2011) 84: 261–4. doi: 10.1016/j.pec.2010.07.017
15. Pritchard SA, Denning T, Keating JL, et al. 'It's not an acting job ... don't underestimate what a simulated patient does': a qualitative study exploring the perspectives of simulated patients in health professions education. *Simul Healthc* (2020) 15(1): 21–9. doi: 10.1097/SIH.0000000000000400
16. Jacobs AC, van Jaarsveldt DE. 'The character rests heavily within me': drama students as standardized patients in mental health nursing education. *J Psychiatr Ment Health Nurs* (2016) 23(3–4): 198–206. doi: 10.1111/jpm.12302
17. Mandrusiak AM, Isles R, Chang AT, et al. Senior physiotherapy students as standardised patients for junior students enhances self-efficacy and satisfaction in both junior and senior students. *BMC Med Educ* (2014) 14: 105. doi: 10.1186/1472-6920-14-105
18. Recker-Hughes C, Dungey J, Dougherty M, et al. A win-win model for use of a standardized patient examination to promote student readiness and develop clinical instructor teaching skills for clinical experiences. 2015. Available from: <https://aptaeducation.org/abstract-archive/view.cfm?id=2288274> [cited 30 August 2021].
19. Creswell JW, Poth CN. Qualitative inquiry and research design: choosing among five approaches. 4th ed. Thousand Oaks, CA: Sage Publications; 2018.
20. Thomas DR. A general inductive approach for analyzing qualitative evaluation data. *Am J Eval* (2006) 27(2): 237–46. doi: 10.1177/1098214005283748
21. INACSL. Standards of best practice: simulation. *Simulation design. Clin Simul Nurs* (2016) 12: S5–12. doi: 10.1016/j.ecns.2016.09.005
22. Dreifuerst KT. Using debriefing for meaningful learning to foster development of clinical reasoning in simulation. *J Nurs Educ* (2012) 51(6): 326–33. doi: 10.3928/01484834-20120409-02

23. Rudolph JW, Simon R, Rivard P, et al. Debriefing with good judgement: combining rigorous feedback with genuine inquiry. *Anesth Clin* (2007) 25: 361–37. doi: 10.1016/j.anclin.2007.03.007
24. Riopel M, Litwin B, Silberman N, et al. Utilizing standardized patient feedback to facilitate professional behavior in physical therapist students: a pilot study. *Internet J Allied Health Sci Pract* (2018) 16(3): 4. doi: 10.46743/1540-580X/2018.1734
25. Silberman N, Litwin B, Fernandez-Fernandez A, et al. Development and evaluation of a simulation-based acute care course in a physical therapist education program. *J Phys Ther Educ* (2020) 34(1): 76–85. doi: 10.1097/JTE.000000000000122
26. Lincoln YS, Guba EG. *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, 1985; p. 314.
27. Saunders B, Sim J, Kingstone T, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant* (2018) 52(4): 1893–907. doi: 10.1007/s11135-017-0574-8
28. Creswell JW, Miller DL. Determining validity in qualitative inquiry. *Theory Pract* (2000) 39(3): 124–30. doi: 10.1207/s15430421tip3903\_2
29. Hojat M. A definition and key features of empathy in patient care. In: *Empathy in health professional education and patient care*. Cham: Springer; 2016: 71–78. doi: 10.1007/978-3-319-27625-0\_6
30. Bearman M, Palermo C, Allen LM, et al. Learning empathy through simulation: a systematic literature review. *Simul Healthc* (2015) 10(5): 308–19. doi: 10.1097/SIH.0000000000000113
31. Hojat M, Louis D, Maio V, et al. Empathy and health care quality. *Am J Med Qual* (2013) 28(1): 6–7. doi: 10.1177/1062860612464731
32. Core values for the physical therapist and physical therapist assistant. Available from: <https://www.apta.org/siteassets/pdfs/policies/core-values-endorsement.pdf> [cited 1 June 2020].
33. Lewis KL, Bohnert CA, Gammon WL, et al. The association of standardized patient educators (ASPE) standards of best practice (SOBP). *Adv Simul Lond Engl* (2017) 2: 10–14. eCollection. doi: 10.1186/s41077-017-0043-4
34. Berenson LD, Goodill SW, Wenger S. Standardized patient feedback: making it work across disciplines. *J Allied Health* (2012) 41(1): 27E–31E.

---

**\*Nicki Silberman, PT, DPT, PhD**

Associate Professor and Director of Clinical Education  
Hunter College, Department of Physical Therapy  
425 East 25th Street  
New York, NY 10010 USA  
Tel: 212-396-7124  
Email: [nicki.silberman@hunter.cuny.edu](mailto:nicki.silberman@hunter.cuny.edu)