ATHLETIC TRAINING EDUCATION JOURNAL
© National Athletic Trainers' Association
www.natajournals.org
ISSN: 1947-380X
DOI: 10.4085/140155

ORIGINAL RESEARCH

Postprofessional Learners' Reflections After a Standardized Patient Encounter and Debriefing Session

Joshua M. Bush, DAT, LAT, ATC*; Stacy E. Walker, PhD, ATC, FNATA†; Kristen N. Sims-Koenig, DAT, LAT, ATC*; Zachary K. Winkelmann, MS, LAT, ATC*; Lindsey E. Eberman, PhD, LAT, ATC*
*Department of Applied Medicine and Rehabilitation, Indiana State University, Terre Haute; †School of Kinesiology, Ball State University, Muncie, IN

Context: Simulations are commonly used in medical education to facilitate instructional and assessment experiences for learners. Standardized patients (SPs) are a form of simulation with actors trained to present conditions that occur in health care. The most important feature in simulation-based education is feedback; one form of group feedback is debriefing, intended to improve learning, future performance, and patient outcomes.

Objective: To explore reflections on learning after an SP encounter and debriefing session.

Design: Action research design with consensual qualitative research tradition.

Setting: One Midwestern University.

Patients or Other Participants: Seventeen postprofessional doctor of athletic training students with no previous experience with SPs (age = 25 ± 4 years; male = 5, 29.4%, female = 12, 70.6%; highest degree earned professional bachelor's = 12, 70.6% and postprofessional master's = 5, 29.4%, experience = 24.8 ± 30.5 months).

Main Outcome Measure(s): Participants completed 1 of 3 SP encounters and the following day engaged in a diamond-debriefing session. After both the SP encounter and debriefing session, participants completed a 5-item open-ended questionnaire. The open-ended questions asked participants to self-reflect on what they learned after the SP encounter and the debriefing session. The questions were evaluated by a panel of qualitative researchers for content and face validity. Consensual qualitative research data analysis approach was used to analyze all open-ended responses.

Results: Our qualitative analysis revealed that reflections after both the SP encounter and debriefing session revolved around 3 overarching themes: organization of clinical exam, vulnerability, and patient-centered care.

Conclusions: The SP encounter and diamond-debriefing technique did facilitate self-reflection and inform and motivate learners to alter their future approach to patient-centered care. Future research could explore if reflection would differ if it occurred immediately after an SP encounter or 1 day after SP encounter.

Key Words: Simulation, patient-centered care, self-reflective practice, experiential learning

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

Dr Eberman is currently Professor and Program Director for the Doctorate in the Athletic Training at Indiana State University. Please address all correspondence to Lindsey E. Eberman, PhD, LAT, Department of Applied Medicine and Rehabilitation, Indiana State University, 567 North 5th Street, Terre Haute, IN 47809. Lindsey.Eberman@indstate.edu.

Full Citation:
Bush JM, Walker SE, Sims-Koenig KN, Winkelmann ZK, Eberman LE. Postprofessional learners' reflections after a standardized patient encounter and debriefing session. *Athl Train Educ J*. 2019;14(1):55–63.

Postprofessional Learners' Reflections After a Standardized Patient Encounter and Debriefing Session

Joshua M. Bush, DAT, LAT, ATC; Stacy E. Walker, PhD, ATC, FNATA; Kristen N. Sims-Koenig, DAT, LAT, ATC; Zachary K. Winkelmann, MS, LAT, ATC; Lindsey E. Eberman, PhD, LAT, ATC

KEY POINTS

- Both postprofessional educators and continuing education courses should utilize SP encounters and debriefing.
- Debriefing was important in establishing more focused self-reflection and helped foster future approaches to applying patient-centered care in clinical practice.
- Standardized patient experiences are effective at developing patient-centered care behaviors in postprofessional learners.

INTRODUCTION

A standardized patient (SP) is both an educational and evaluation tool used throughout medicine.[1–4] An SP is defined as a trained healthy individual (or a patient with consistent chronic symptoms) who portrays a specific condition consistently to each learner or practitioner.[1,5] Health professions primarily use SPs as a means of teaching and improving the communication and clinical skills of students, faculties, and residents.[6–9] Other concepts can be taught through SP use such as medical ethics, teaching skills, cultural competency, and multidisciplinary cooperation.[5] The medical learner in the SP encounter is provided a safe and controlled environment to enhance his or her clinical skills and build confidence to perform in real practice.[10] SPs have been found to enhance students' communication and clinical skills,[11] as well as reduce anxiety in clinical practice among nursing students.[11,12] Besides nursing, other health care programs such as medical schools,[13,14] residency programs,[14–18] and athletic training programs[19] use SPs to evaluate competency in a simulation-based education. After these encounters, a debriefing occurs to supplement the clinical examination, allowing for a period of conversation between the educators and learners regarding performance.[20]

Debriefing is a staple in simulation-based learning that is designed to refocus and strengthen learning from an experiential learning event, such as an SP encounter.[21] Successful debriefing pushes learners to reflect and then receive feedback, with a developmental intent, on specific events in a safe learning environment.[22] The objectives of the debrief include identification of the different perceptions and attitudes that have occurred, linking the experience to specific theory or content and skill-building techniques, and the opportunity to receive feedback on the nature of one's involvement, behavior, and decision making.[23] Researchers often describe debriefing as a process in which the majority of learning occurs from simulated experiences.[24–27] While debriefing is an expected process to accompany simulation or SPs, studies often fail to describe how they are conducted and facilitated.[28] A poorly executed debriefing session may be harmful to the learners' attainment of debriefing objectives by concentrating too much on the errors and technical points of the simulation.[29] Not all health care professionals are capable of assimilating their own learning experiences in the dynamic of clinical practice. As such, SPs and structured debriefing can supplement the core element of training in health care with an experiential and reflective opportunity in a controlled environment. Although SPs have been incorporated and researched within professional programs in athletic training for clinical and professional skills, this instructional method could be incorporated into clinical practice through postprofessional programs to drive clinical practice advancement. Since the purpose of a postprofessional athletic training program is to develop the knowledge and skills beyond the professional level, educators at this higher level should utilize SPs for the purpose of evaluating and assessing advanced clinical practice. Additionally, the current framework of continuing education maintenance in athletic training typically uses formal continuing education activities that are believed to improve patient care.[30] Unfortunately, these activities rarely assess the athletic trainer applying knowledge and skills through patient care situations. As such, the integration of SPs in postprofessional athletic training programs could serve as a means of examining the enhancement and integration of skills in live patient settings. In athletic training, there has been no research as to how a debriefing session facilitates reflection. The purpose of this study was to explore the learner's reflections after completing an SP encounter and after a debriefing session within a postprofessional program.

METHODS

This study used an action research design. The data were analyzed using the consensual qualitative research (CQR) tradition, which has been previously used in athletic training research.[31,32] The CQR tradition uses open-ended questions to gather data, while a team makes decisions by consensus to describe the meaning of the data.[33] An external auditor is used in CQR to reduce the effects of groupthink by the primary team.[33] The research team consisted of 3 individuals who had ranged from novice to proficient with the CQR tradition and an external auditor. This study was approved by the Indiana State University Institutional Review Board.

Participants and Setting

After institutional review board approval, we utilized a purposive sample of learners and recruited from a postprofessional athletic training program. The participants were included in the study if they had no previous experience with SPs and were enrolled full-time in a Commission on Accreditation of Athletic Training Education-accredited postprofessional Doctor of Athletic Training Program. The recruitment process for the study used multiple stages. At the start of the potential participants' summer course, the lead investigator presented a short (less than 5 minute) video via e-mail to each of the learners. The video described the components of the research project and made the learners aware of the measures that were being taken to reduce

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

Table 1. Participant Demographics

Pseudonym	Age, y	Sex	Experience as a Certified Athletic Trainer	Highest Degree Earned
Brock	27	Male	4 y	Postprofessional master's
Bruce	28	Male	6 y	Postprofessional master's
Cal	22	Male	1 mo	Professional bachelor's
Camilla	24	Female	2 y	Professional bachelor's
Charlotte	22	Female	1 mo	Professional bachelor's
Daisy	24	Female	1 mo	Professional bachelor's
Ida	22	Female	2 mo	Professional bachelor's
Jack	23	Male	1 y	Professional bachelor's
Lewis	23	Male	2 mo	Professional bachelor's
Lizzy	22	Female	1 mo	Professional bachelor's
Madeline	25	Female	4 y	Professional bachelor's
Molly	24	Female	2 y	Postprofessional master's
Myrtle	28	Female	7 y	Postprofessional master's
Rose	39	Female	7 y	Professional bachelor's
Ruth	28	Female	6 y	Postprofessional master's
Sue	22	Female	7 mo	Professional bachelor's
Trudy	22	Female	3 mo	Professional bachelor's

coercion to participate. A follow-up e-mail was sent to each of the learners 3 weeks later with the informed consent form attached. Additionally, the lead investigator hosted a video-conference for all interested participants to answer questions. The postprofessional athletic training program is a distance, hybrid program; the learners completed the majority of their learning online. This is complemented by a culminating, face-to-face, experience at the end of the semester. The educator for the course was not present and did not have any influence on any part of the recruitment process.

During the culminating face-to-face experience on campus, the learners reported to a simulation center for individual SP encounters. Before entering the room at their scheduled time, the learners were placed in groups of 3 in a waiting area. The lead investigator provided all students informed consent forms to be signed and provided an additional opportunity to answer questions while waiting for the SP to begin. Next, the participants experienced 1 of the 3 SP cases that were developed from real patient cases and content validated through review of practicing athletic trainers and educators with expertise in case development. The SP cases included (1) an elderly, active female with an os trigonum reporting a chief complaint of posterior ankle pain and swelling; (2) a young adult, active female teacher with rheumatoid arthritis reporting a chief complaint of general joint pain, swelling, and pain in the knee; and (3) a young adult, active male with drop foot reporting a chief complaint of chronic low back pain. After the SP encounter and debriefing session, a research assistant sorted and extracted the data for interested individuals via the informed consents. We maintained the confidentiality of the participant by using pseudonyms.

Seventeen postprofessional doctor of athletic training students (age = 25 ± 4 years; male = 5, 29.4%, female = 12, 70.6%; highest degree earned professional bachelor's = 12, 70.6% and postprofessional master's = 5, 29.4%, experience = 24.8 ± 30.5 months) participated in this study. Student demographics, including pseudonyms, are provided in Table 1.

Instrumentation

Our dependent measure was the self-reflection tool with 5 open-ended questions. The open-ended questions asked participants to self-reflect on what they learned after the SP encounter and again after the debriefing session (eg, what did you learn about yourself, how can you translate this experience into your clinical practice?). The questions were evaluated by a panel of qualitative researchers for content and face validity. The questions are provided in Table 2. The self-reflection tool was administered electronically via a survey link (Qualtrics, Inc, Provo, UT).

Procedures

All learners in the postprofessional athletic training program completed an SP encounter and engaged in a debriefing session per the curriculum requirement. The learning objectives of the SP encounter revolved around integrating the best research with clinical expertise and patient values, while maintaining a whole-body approach to provide optimum patient-centered care. The learners were informed of the process and expectations of the SP encounter before the experience. Immediately before entering the SP encounter, learners were given the informed consent and asked to read, acknowledge their decision to participate or not, and deposit into a folder. The investigators stepped out of the room

Table 2. Open-Ended Questions

1. What did you learn about yourself during this activity?
2. What concepts can you take and apply to your clinical practice after today?
3. How can you translate what you learned today to other patients without the same condition?
4. How did the standardized patient experience aid you in developing, controlling, and organizing your clinical examination?
5. How did the standardized patient experience influence your confidence?

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

during this time so that learners were not coerced into signing the informed consent.

During the culminating face-to-face experience on campus, the learners reported to a simulation center for individual SP encounters. Before entering the room at their scheduled 30-minute session, the learners were placed in groups of 3 in a waiting area. The lead investigator provided all students informed consent forms to be signed and provided an additional opportunity to answer questions while waiting for the SP to begin. Next, the participants experienced 1 of the 3 SP cases that were developed from real patient cases and content validated through review of practicing athletic trainers and educators with expertise in case development. The SP cases included (1) an elderly, active female with an os trigonum reporting a chief complaint of posterior ankle pain and swelling; (2) a young adult, active female teacher with rheumatoid arthritis reporting a chief complaint of general joint pain, swelling, and pain in the knee; and (3) a young adult, active male with drop foot reporting a chief complaint of chronic low back pain. The learners conducted a clinical examination and discussed the outcome of their assessment with the patient. After the participants completed their SP, they immediately responded to the open-ended questions on their laptops in a quiet room.

The following day, all of the learners, including those who did not wish to participate in the study, engaged in a diamond-debriefing session per the curriculum requirement. The diamond model of debriefing is designed to allow an exploration of the nontechnical aspects of the simulation scenario. The diamond-debriefing session starts by opening with a facilitated discussion about the scenario, before narrowing the focus of the discussion with specific learning points.

The facilitator was experienced in using the diamond-debriefing model for reflection. A research assistant took field notes regarding the session. The debriefing session aimed to provide a supportive climate, which encouraged vulnerability among the learners. This safe environment stimulated self-reflection among the learners and helped them to relate their experiences back to theory. The session was facilitated through the 3 stages of the diamond debrief,[28] allowing for natural flow of learner discussion to occur. The diamond-debriefing session began with a 7-minute guided imagery session to create a unified understanding of what actually happened. The learners were then prompted to talk about what they thought happened. Their discussion was restricted to facts rather than drawing from their emotions. The discussion transitioned into the analysis stage where the learners shared why they thought things happened. The facilitator allowed discussion of emotional responses but attempted to refocus and maintain a positive atmosphere among the learners. After some time was spent in the analysis discussing specifics, the facilitator transitioned into the application phase by discussing how the learners might use their learned strategies in different situations. Immediately after debriefing was completed, the learners were asked to remain in the room and those that were participating in the study completed the self-reflection tool again. A research assistant sorted and extracted the data for interested individuals via the informed consents. We maintained the confidentiality of the participant by using pseudonyms.

Table 3. Counts of Major Themes

Themes and Categories	Frequency	Count
Organization of clinical exam	Typical	14/17
Vulnerability	General	17/17
Patient-centered care	General	17/17

Data Analysis

The consensual qualitative research data analysis approach was used to analyze all open-ended responses.[33] A 3-person data analysis team (J.M.B., S.E.W., L.E.E.) read through the data from immediately after the SP encounter and after the debriefing. Each member of the team identified codes and themes independently and then the team met to develop a consensus codebook. Each researcher then independently coded the data and met 1 final time to reach a final consensus ensuring accuracy and representativeness of the data. Credibility was established by the use of multiple researchers and an external auditor (Z.K.W.).

RESULTS

After analyzing the open-ended response answers, 3 themes emerged related to the self-reflection of the learners immediately after the SP and immediately after the debriefing session. The first theme, *organization of clinical exam*, described the learners' approach to the clinical exam. The second theme *of vulnerability* described the learners' emotions from the experience. The final theme of *patient-centered care* described the learners' integration of newly learned knowledge and skills. Counts of the themes are provided in Table 3. The counts for CQR tradition are established using the terms *general, typical, or variant*. A general frequency count implies that the theme showed up in all but 1 of the transcripts. A typical frequency count means that the theme showed up in at least half of the transcripts. A variant frequency count showed up in at least 2, but in under half of the transcripts.

Organization of Clinical Exam

The theme of organization of clinical exam encompasses any reflection on the physical components of the participant's process through the examination of the SP. These components included aspects such as time constraints, patient history taking, and decision making regarding diagnostic testing. Immediately after the SP encounter, the participants expressed their thoughts on how they thought the encounter went. Sometimes, these thoughts were based on specific aspects of their clinical exam, while other times their statements were more general and focused toward their level of satisfaction with their performance. We identified that many participants noted being dissatisfied with the order of how they completed the exam. Cal stated, "I could have discussed the [patient-reported outcome measure] with the patient a little more, but I was worried about not having enough time to complete a full evaluation." Camilla shared a similar viewpoint regarding time constraints:

> *I did not have the time to go over exercises with her. . . I did not do any clinician outcomes or strength. Which I have no idea why I did not do that. I wanted to find out more about her and what her daily activities consist of what she did for fun. I*

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

need to be more conscious of my time during that situation and get the clinician outcomes.

Mary exclaimed, "I perform these assessments daily (much better when I'm not so nervous) . . . my exam today was not well organized, and my nerves did get the best of me." The debriefing session brought about a feeling of anxiety for some, with Ida sharing, "During the debrief for a moment, I started to get very anxious about how I failed the SP," while others, like Brock, shared "I felt more confident after the debrief." Additionally, participants responded with more specificity in their responses after the debriefing session. In a response to the question "What did you learn about yourself during this activity?" Lizzy renounced her thoughts on her performance:

I learned that I need to work on my evaluation skills. I completely forgot to ask past medical history, when I got in there, I kind of blanked on what I wanted to do. I felt as though I was upfront when I wasn't sure what the injury was to the knee, and that I wanted further information before making a clinical decision.

After the structured debriefing session, Lizzy's response to the same question was more focused on changes she could apply for future patient interactions: "I don't need to pull everything from my head; I can utilize tools to help me in my clinical practice. Checklists are definitely okay, and I plan to start to build one that I can use at my high school." She and other learners were able to construct a plan of action that they could implement with future patient interactions after debriefing.

Brock reflected after the SP on how he was positioning the patient throughout his examination.

I kept seeing and thinking of different things. I asked a patient with pain to reposition themselves a number of times. I should have started with walking, then everything standing, then everything supine, prone, etc. I need to reorganize my thoughts by position, rather than test.

Brock expanded on his reflection of his clinical exam after debriefing, targeting patient-centered approaches to his clinical exam that he could implement in the future:

I'm certainly going to have to focus on implementing specific things into my exam at certain points. Such as goal for the visit at the beginning of the treatment, including questions about the patient's personal life throughout the history process, and focusing on goal setting at the end of the visit where the goals are set together not just as confirmation.

Similar to Lizzy's experience, Brock was able to use the debriefing session to develop a plan of action for his future patient examinations. Some participants related the organization of their clinical exam back to whether they had their patient's best interest in mind. After the SP, Ruth responded:

My overall evaluation of the injury was not systematic. I took the history, did a little bit of a palpation and did some special tests, and then I went right into the assessment and plan, but did not necessarily discuss other options of treatment. I did go back and ask her about her opinion about what she thought of the plan, and she was uncomfortable with the plan, so I revised my plan, but nonetheless, I did not ask her about what she wanted to do first.

The SP provided participants with an opportunity to identify how the organization of their clinical exam could be structured differently to ensure the patient receives meaningful information regarding the injury.

Vulnerability

The second theme identified from the responses was *vulnerability*, which can be defined as the participant actively engaging and replying to the open-ended questions with a sense of exposure to possible critique of or attack on his or her clinical abilities. These statements were often directed toward acknowledging one's faults and highlighting those faults to be worked on for the future. Participants expressed feelings of vulnerability both before and after the diamond debrief. Jack said the following:

I am a very mind-centered person, and that is where I keep a lot of my thoughts; however, there were moments that I lost those thoughts and ideas and wish I would have written them down. I think I learned that there is a lot of room for improvement, and while I tried to incorporate a lot of the things I learned this semester I still have a lot to learn.

Acknowledging faults and potential for improvement in the clinical exam were among the ways learners showed that they had allowed themselves to be vulnerable through this process.

Sue mentioned her uncertainty in caring for patients of populations different from her own: "I learned that I should familiarize myself more with 'nontraditional' patients, like farmers, which are more common in the area that I will be working in now. I was unsure of some movements that my patient was needing to perform for work." Bruce made a similar remark: "I'm a little nervous as to my abilities to treat noncollegiate athletes." Additionally, Molly said that the SP encounter and debriefing experience "was a good opportunity to step outside [my] comfort zone and think about another population." Sue, Bruce, and Molly recognized that working with nontraditional patients was outside of their comfort zone.

Another participant, Cal, commented after debriefing with his classmates: "I have a great deal of improvement to make as a patient-centered health care provider. Initially, it can be difficult to implement many new things, utilize them appropriately and continue using things from previous practice which are important." Lewis commented after debriefing: "There were a lot of conditions that were tricky and I definitely think that a number of us struggled with asking the right questions and getting the necessary information out of the patient. I feel better knowing that I wasn't the only one who struggled with their patient." The participants' ability to be vulnerable while debriefing allowed Cal and Lewis to recognize that they shared similar thoughts about their performance as their classmates.

The SP was an opportunity for Charlotte, among others, to gather insight on her own strengths and weaknesses to work on in the future. Charlotte reflected on her SP experience in stating:

It made me see what my strengths and weaknesses were. It put me to the test by adding in a time constraint, which is realistic

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

for the real world. The SP experience for me was fun and enlightening, as I now feel as though I have a better understanding of who I am as a clinician and what I need to work on in the future to better myself and my care.

The learners portrayed vulnerability through both the SP and diamond debrief allowing themselves to determine what they can do better in the future.

Patient-Centered Care

Participants reflected on their ability to be patient-centered during their evaluations in the SP encounter. Often, they related their intentions for future actions back to how they would be more patient-centered. Daisy identified that the SP and debriefing "was a great way to try and apply the things that [she] learned during the [semester] and now [she] can clean it up before applying it to [the] patients at [her] clinical site." Sue stated the following to be what she would take and apply to her clinical practice after both the SP encounter and debriefing session: "Being more patient-centered. I feel like I have done a good job with patient education, but I often don't talk to the patient much about their history once I have gotten the [mechanism of injury] and the background on the specific injury they came in to see me about." Similarly, Charlotte followed the debriefing session with an idea of what she will take back to her clinical practice from the whole experience: "making sure to encompass patient-centered care the entire evaluation, keeping the patient involved throughout, will now become one of my main goals to implement into my clinical practice." These learners' reflections embody the learning objective of patient-centered care from the class in which the SP encounter was developed as an assessment tool for.

Some participants narrowed their focus within their reflection on being patient-centered, often commenting on their ability to empower the patient to choose the best treatment option, collaborate with patients to set goals, or how they inquired how the patient's injuries were affecting them beyond work and sport. Molly exemplified the importance of giving the patient a choice in health care. She explained: "The concepts I can apply to my clinical practice after today is truly involving the patient in their clinical decision-making process. It made the experience a lot better having patient involvement rather than just me as the clinician telling them what they had to do." Ida echoed this objective with her response:

Definitely giving the patients options. Giving them the option if they choose not to do anything is something I have never really considered before, but is important to include. Also providing options regarding no care, referred care for extra imaging or rehabilitation, or self-care options.

Jack remarked on his personal takeaway from the SP and debriefing session, "One of the biggest concepts I want to take from this experience into my clinical practice is the use of giving patient choice." Ida described why she finds patient involvement in goal setting to be an important lesson with her comment: "Including the patient into goal setting, or finding what they really want to get out of the treatments or what is important to them is also a big help in guiding your next steps and rehabilitation." Brock found similar meaning in this concept of using goal setting to make his care more meaningful to the patient: He explained: "A continued focus to be patient-centered. . . . Focus on formally setting short [term goals] and long [term goals] with patient input, not just asking if my plan works for them. Setting a goal for the visit at the beginning with the patient."

A paramount part of patient-centered care revolves around gathering a more holistic history that may assist the clinician in getting a better understanding of how the injury or illness may affect the patient's emotional, physical, and spiritual well-being.[34,35] A holistic approach to gathering patient history will assist the clinician with providing care that is customized according to the patient's needs and values.[36] Bruce stated, "I'm often too focused on treating my patients as athletes, as opposed to real-life humans with their own things going on." After the SP, Lizzy acknowledged that she did not gather enough information regarding her patient's occupation, when she said, "I asked about the patient being at work and focused on how she was a kindergarten teacher, but I did not really go too in depth after that." After debriefing, Lizzy responded to the same question about what she would take away and apply to her clinical practice, with an action-oriented statement: "[I am going to] continue to ask in-depth history questions about their life and not just have the evaluation be about the musculoskeletal problem." Bruce recognized that he could use what he learned from this SP and debriefing session with patients that do not have the same injury. He stated that he could "continue to look at [his] patients' entire lives and everything else that they have going on. [He] can delve deeper into other aspects of their [patients'] lives that may be causing them problems besides just athletic activity." Both Bruce and Lizzy had comparable takeaways from their SP encounter and debriefing session related to inquiring about information beyond the patient's injury.

Similarly, Trudy reflected that being patient-centered meant to extend the clinical examination beyond the physiology by stating, "I learned that taking history and learning a lot more about the patient's life is the most beneficial tool I have. I was able to really understand the patient's wants and needs, even though I wasn't too familiar with farming or having children." This same idea was echoed regarding whole-person health care from Myrtle about how she intends to "integrate a more 'whole-body' approach" to her clinical practice after the SP encounter and debriefing:

I only have about 5-7 minutes with each patient in my own practice so I normally try to make the most of it with the problem that they came in for. I need to start looking more below and above the joint when doing an assessment. I also need to find a way to incorporate more of a "spiritual health" aspect and see if I can help the patient in any way that way.

Myrtle's intent to be more inclusive of other aspects of the patient's values in her assessment is a direct change she can make to be more patient-centered.

DISCUSSION

An SP encounter followed by structured debriefing provides learners with the opportunity to cultivate the application of learned knowledge and skills necessary to improve patient care in real clinical practice. The SP and debriefing session satisfy the objectives described in the experiential learning theory, which is an effective method for adult learning.[26,37,38] This study aimed to explore the reflections of postprofessional

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

learners after an SP encounter and debriefing session. The incorporation of the SP encounters and debriefing sessions in the educational process must first consider resources and training for execution. If feasible, the educational technique should be used as a metric of assessment for clinical advancement throughout the curriculum, rather than a singular encounter. The initial encounter, as presented in this study, should be low-stakes, while a culminating SP encounter should be high-risk related to program outcomes. In the context of continuing education, SPs can serve to supplement annual training and when new personnel are introduced into the health care system.

Organization of Clinical Exam

Learner reflections revealed concerns involving their clinical exam and how they experienced frustration in their inability to move fluidly throughout their examination during the SP encounter. The concept of a time limit was described by participants as restricting their ability to complete a thorough exam during the SP encounter. Both physicians and their patients agree that reduced visit length reduces the level of satisfaction they have with the patient-physician interaction.[39–41] The optimal visit length for a patient-physician interaction was identified as 18 minutes, and any visit lasting longer than that depended on how much information seeking occurred on the part of the patient.[42] Athletic trainers experience time constraints in their clinical practice as well.[31] The perceived barrier of a time limit is likely not consistent with the participants' actual patient encounters, in which they likely spend less than 30 minutes completing an evaluation on a patient. Some participants attributed this perceived barrier to the lack of organization in their evaluation. Participants mentioned the idea of using a checklist or systematic approach to history taking in future clinical exams to keep them from feeling time pressured.

Immediately after the SP encounter, participants expressed their frustration with not incorporating certain parts of their clinical exam that they felt they would have included in their real-life clinical practice. After the debriefing session, we saw a shift in the tone of their responses to the same questions. Frustration was exchanged for a plan of action with future patient encounters. The participants' opportunity to defuse emotion, reflect, and learn during the debriefing session likely reduced their negative emotions, thus allowing for experiential learning to occur because of the SP encounter.

Vulnerability

An important role that participants play as clinicians in an SP encounter is to be vulnerable and to have emotional buy-in during the simulated experience. The ability of the learner to suspend disbelief is crucial for effective simulation.[43] Factors that contribute to the learner's ability to suspend disbelief include fidelity, psychological safety, and emotional buy-in, among others.[43] The vast majority of our participants reflected on their strengths and weaknesses, and how they felt they could improve on areas of their clinical examination. During the debriefing session, learners are encouraged to reflect on their personal SP encounter and determine what tasks were performed and how they prioritized those tasks. Our participants were able to discuss their approaches to the different cases without being criticized for their explanations, even in the presence of errors. The ability to learn from error is essential to the growth of a practicing clinician. Morbidity and mortality conferences (M&MC) are used to improve practice through the examination of medical errors and poor patient outcomes.[44] Comparable to learners in a debriefing session, the treating clinician in an M&MC must be vulnerable in order to share and examine his or her experience. The moderator, and those in attendance of the M&MC, should be aware of the vulnerable state of the clinician and use a supportive tone while addressing medical error(s).[44] The environment of the M&MC is established in a manner that reduces the risk of the clinician's adopting harmful defense mechanisms. Avoidance, minimization, and magnification of errors are defense mechanisms that can negatively affect the professional development of the clinician.[44]

Similar to the situation with an M&MC, psychological safety should be maintained to promote a positive learning environment in a debriefing session.[45] If the facilitator is too critical regarding learner mistakes, this can interrupt communication and harm the learning potential of the debriefing experience. The majority of our participants remained vulnerable in their postdebriefing responses; thus, the positivity and psychological safety of the learning environment were maintained during our debriefing session. There were a few instances in which participants were less inclined to be vulnerable through the SP encounter and debriefing process. These learners reflected an inability to suspend reality for the simulated event.

Patient-Centered Care

Patient-centered care is defined by the Institute of Medicine as "providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions."[36] Patient-centered care was a learning objective of the SP encounter and debriefing session. The learners' SP experience was heavily influenced by the curriculum of the course where the SP was assigned. The participants' reflections embodied this concept in the majority of their responses. During the debriefing session, participants were focused on how they demonstrated being patient-centered throughout their evaluation. The SP cases were developed to portray patient populations that would not be seen by an athletic trainer in a traditional (college/university and secondary school) setting. The learning objective did not revolve around having an understanding of the SP case's occupation or hobby, but instead on the learners' ability to translate patient-centered communication skills to any patient encounter. SP encounters provide an authentic opportunity for learners to practice the skill of communication.[46] The assessment criteria for the SP encounter aligned with the learning objectives. The criteria included their communication and interpersonal skills, their data gathering and evaluative skills, and their patient education skills. During the debriefing session, the learners commented on the educational gap that existed between working with traditional patients and those used in the SP experience. Although this educational gap was identified, it did not inhibit the participants from translating what they learned during the experience to how they would improve their real clinical practice. In their responses, participants described specific plans to apply patient-centered care to their future patient

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

interactions. The translation of learning from experience to clinical practice shows that the SP encounter and diamond-debriefing session were grounded in experiential and translational learning theories.

Our participants reflected on their ability to provide the patient with options, empower the patient to make an educated decision in his or her own health care, and inquire about aspects of the patients' lives that were unrelated to the physiology of their injury. The planned application of these patient-centered skills will allow the participants to establish a relationship and improve their level of communication with their future patients.

Limitations and Future Research

A limitation of this study is that we did not include individuals who had previous experience with SPs in the study, yet those individuals were involved in the debriefing session. As with action research, it is not appropriate to preclude learners and it is difficult to control all variables. Future research should be aimed at exploring the difference in participant reflection between reflections completed immediately after an SP encounter and those completed 1 day after the SP encounter. The concept of the working mind and cognitive load during SP encounters, specifically for the practicing clinician, may allow us to better understand how anxiety, stress, and nerves relate to professional development scenarios targeted at patient encounter improvement. Additionally, future research should identify the model of debriefing used and describe the process of the debriefing session.

CONCLUSIONS

The SP encounter and diamond-debriefing technique facilitated self-reflection among the participants. Self-reflection within the psychologically safe and positive learning environment of the debriefing session informed and empowered the participants to plan for implementing improvements in their patient-centered approaches in clinical practice. These findings suggest that postprofessional athletic training education should incorporate SPs and debriefing in its curriculum while considering the learning characteristics of adult learners. This experiential learning activity will provide adult professionals with a chance to reflect and motivate meaningful change in their athletic training clinical practice.

REFERENCES

1. Woodward CA, McConvey GA, Neufeld V, Norman GR, Walsh A. Measurement of physician performance by standardized patients. Refining techniques for undetected entry in physicians' offices. *Med Care*. 1985;23(8):1019–1027.
2. Anderson MB, Stillman PL, Wang Y. Growing use of standardized patients in teaching and evaluation in medical education. *Teach Learn Med*. 1994;6(1):15–22.
3. Rethans JJ, Sturmans F, Drop R, van der Vleuten C. Assessment of the performance of general practitioners by the use of standardized (simulated) patients. *Br J Gen Pract*. 1991; 41(344):97–99.
4. Safdieh JE, Lin AL, Aizer J, et al. Standardized patient outcomes trial (SPOT) in neurology. *Med Educ Online*. 2011;16.
5. May W, Park JH, Lee JP. A ten-year review of the literature on the use of standardized patients in teaching and learning: 1996-2005. *Med Teach*. 2009;31(6):487–492.
6. Porcerelli JH, Brennan S, Carty J, Ziadni M, Markova T. Resident ratings of communication skills using the Kalamazoo Adapted Checklist. *J Grad Med Educ*. 2015;7(3):458–461.
7. Symons AB, Swanson A, McGuigan D, Orrange S, Akl EA. A tool for self-assessment of communication skills and professionalism in residents. *BMC Med Educ*. 2009;9:1.
8. Walker SE, Weidner TG. Standardized patients provide realistic and worthwhile experiences for athletic training students. *Athl Train Educ J*. 2010;5(2):77–86.
9. Becker KL, Rose LE, Berg JB, Park H, Shatzer JH. The teaching effectiveness of standardized patients. *J Nurs Educ*. 2006;45(4): 103–111.
10. Findley J, Schatte D, Power J. A difficult patient encounter: using a standardized patient scenario to teach medical students to treat medication-seeking patients. *MedEdPORTAL*. 2017;13: 10612.
11. Sarmasoglu S, Dinc L, Elcin M. Using standardized patients in nursing education: effects on students' psychomotor skill development. *Nurse Educ*. 2016;41(2):E1–E5.
12. Ebbert DW, Connors H. Standardized patient experiences: evaluation of clinical performance and nurse practitioner student satisfaction. *Nurs Educ Perspect*. 2004;25(1):12–15.
13. Duggan A, Bradshaw YS, Carroll SE, Rattigan SH, Altman W. What can I learn from this interaction? A qualitative analysis of medical student self-reflection and learning in a standardized patient exercise about disability. *J Health Commun*. 2009;14(8): 797–811.
14. Quest TE, Otsuki JA, Banja J, Ratcliff JJ, Heron SL, Kaslow NJ. The use of standardized patients within a procedural competency model to teach death disclosure. *Acad Emerg Med*. 2002;9(11): 1326–1333.
15. Yudkowsky R, Alseidi A, Cintron J. Beyond fulfilling the core competencies: an objective structured clinical examination to assess communication and interpersonal skills in a surgical residency. *Curr Surg*. 2004;61(5):499–503.
16. Yudkowsky R, Downing SM, Sandlow LJ. Developing an institution-based assessment of resident communication and interpersonal skills. *Acad Med*. 2006;81(12):1115–1122.
17. Biernat K, Simpson D, Duthie E Jr, Bragg D, London R. Primary care residents self assessment skills in dementia. *Adv Health Sci Educ Theory Pract*. 2003;8(2):105–110.
18. Kissela B, Harris S, Kleindorfer D, et al. The use of standardized patients for mock oral board exams in neurology: a pilot study. *BMC Med Educ*. 2006;6:22.
19. Armstrong KJ, Jarriel AJ. Standardized patients provide a reliable assessment of athletic training students' clinical skills. *Athl Train Educ J*. 2016;11(2):88–94.
20. Palaganas JC, Fey M, Simon R. Structured debriefing in simulation-based education. *AACN Adv Crit Care*. 2016;27(1): 78–85.
21. Warrick D HP, Cook CW, Altman S. Debriefing experiential learning exercises. *Journal of Experiential Learning Simulation*. 1979;1:91–100.
22. Tannenbaum SI, Cerasoli CP. Do team and individual debriefs enhance performance? A meta-analysis. *Hum Factors*. 2013; 55(1):231–245.

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access

23. Dreifuerst KT. The essentials of debriefing in simulation learning: a concept analysis. *Nurs Educ Perspect*. 2009;30(2):109–114.
24. Morgan PJ, Tarshis J, LeBlanc V, et al. Efficacy of high-fidelity simulation debriefing on the performance of practicing anaesthetists in simulated scenarios. *Br J Anaesth*. 2009;103(4):531–537.
25. Dismukes RK, Gaba DM, Howard SK. So many roads: facilitated debriefing in healthcare. *Simul Healthc*. 2006;1(1): 23–25.
26. Miller KK, Riley W, Davis S, Hansen HE. In situ simulation: a method of experiential learning to promote safety and team behavior. *J Perinat Neonatal Nurs*. 2008;22(2):105–113.
27. Stafford F. The significance of de-roling and debriefing in training medical students using simulation to train medical students. *Med Educ*. 2005;39(11):1083–1085.
28. Jaye P, Thomas L, Reedy G. "The Diamond": a structure for simulation debrief. *Clin Teach*. 2015;12(3):171–175.
29. Rall M, Manser T, Howard S. Key elements of debriefing for simulator training. *Eur J Anaesthesiol*. 2000;17(8):516–517.
30. Armstrong KJ, Weidner TG. Formal and informal continuing education activities and athletic training professional practice. *J Athl Train*. 2010;45(3):279–286.
31. Bacon CEW, Eppelheimer BL, Kasamatsu TM, Lam KC, Nottingham SL. Athletic trainers' perceptions of and barriers to patient care documentation: a report from the Athletic Training Practice-Based Research Network. *J Athl Train*. 2017; 52(7):667–675.
32. Thrasher AB, Walker SE, Hankemeier DA, Pitney WA. Supervising athletic trainers' perceptions of professional socialization of graduate assistant athletic trainers in the collegiate setting. *J Athl Train*. 2015;50(3):321–333.
33. Hill CK, Knox S, Thompson BJ, Williams EN, Hess SA, Ladany N. Consensual qualitative research: an update. *J Couns Psychol*. 2005;52(2):196–205.
34. Harwood JL, Butler CA, Page AE. Patient-centered care and population health: establishing their role in the orthopaedic practice. *J Bone Joint Surg Am*. 2016;98(10):e40.
35. Smith RC, Marshall-Dorsey AA, Osborn GG, et al. Evidence-based guidelines for teaching patient-centered interviewing. *Patient Educ Couns*. 2000;39(1):27–36.
36. Institute of Medicine (US) Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: Institute of Medicine; 2001.
37. Fanning RM, Gaba DM. The role of debriefing in simulation-based learning. *Simul Healthc*. 2007;2(2):115–125.
38. Knowles MS. *The Modern Practice of Adult Education: From Pedagogy to Andragogy*. San Francisco, CA: Jossey-Bass; 1980.
39. Like R, Zyzanski SJ. Patient satisfaction with the clinical encounter: social psychological determinants. *Soc Sci Med*. 1987;24(4):351–357.
40. Morrell DC, Evans ME, Morris RW, Roland MO. The "five minute" consultation: effect of time constraint on clinical content and patient satisfaction. *Br Med J (Clin Res Ed)*. 1986; 292(6524):870–873.
41. Mawardi BH. Satisfactions, dissatisfactions, and causes of stress in medical practice. *JAMA*. 1979;241(14):1483–1486.
42. Beisecker AE, Beisecker TD. Patient information-seeking behaviors when communicating with doctors. *Med Care*. 1990;28(1): 19–28.
43. Muckler VC. Exploring suspension of disbelief during simulation-based learning. *Clin Simul Nurs*. 2017;13(1):3–9.
44. Orlander JD, Barber TW, Fincke BG. The morbidity and mortality conference: the delicate nature of learning from error. *Acad Med*. 2002;77(10):1001–1006.
45. McDavid L. Enhancing learning through simulation activities. *J Nurs Care*. 2014;3:207.
46. Keltner NL, Grant JS, McLernon D. Use of actors as standardized psychiatric patients. *J Psychosoc Nurs Ment Health Serv*. 2011;49(5):34–40.

Downloaded from https://prime-pdf-watermark.prime-prod.pubfactory.com/ at 2025-06-17 via free access