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ORIGINAL RESEARCH

The Longitudinal Impact of Standardized Patient Encounters During Professional Education on Athletic Training Professional Practice

Kirk J. Armstrong, EdD, ATC*; Amanda J. Jarriel, PhD, ATC†; Brittney M. Hardin, PhD, ATC†
*Department of Health Professions, James Madison University, Harrisonburg, VA; †School of Health and Human Performance, Georgia College, Milledgeville

Context: Inquiry into the use of standardized patients (SPs) is growing in athletic training education; however, the impact of these SP encounters has not been examined beyond professional education.

Objective: To understand how SP encounters during professional education benefited clinicians in their current clinical practice and in their transition to practice.

Design: Consensual qualitative research.

Setting: Individual phone interviews.

Patients or Other Participants: Thirteen professionals (7 women, 6 men; mean age = 28.15 ± 6.04 years) with postprofessional experience averaging 3.5 years (3.69 ± 1.43 years) participated in this study. Participant practice settings included college/university (4), high school (7), outpatient clinic (1), and military (1). Interviews were conducted until data saturation occurred.

Main Outcome Measure(s): Data were collected via semistructured interviews, which were recorded and transcribed verbatim. Using a consensual qualitative research design, data were independently analyzed by a 3-person team, who independently coded the data and compared ideas until consensus was reached. Trustworthiness was established through member checks.

Results: Two themes emerged from the findings that described the participants' perceptions of how they felt using SPs in the ATP facilitated their growth as a health care professional: (1) personal growth/development and (2) professional growth/development. Participants specifically noted that these encounters enhanced confidence, critical thinking, interpersonal communication, and patient rapport and aided in transition to practice.

Conclusions: Athletic training professionals who experienced SPs during professional education revealed an increase in perceived confidence in clinical and interpersonal skills as they transitioned to independent practice. Additionally, participants highlighted that SP encounters should continue throughout the athletic training curriculum. Future research should involve participants from postbaccalaureate programs, as well as postprofessional and residency programs.

Key Words: Simulation, transition to practice, qualitative research

Dr Armstrong is currently Professor and Academic Unit Head for the Department of Health Professions at James Madison University. Please address correspondence to Kirk J. Armstrong, EdD, ATC, Department of Health Professions, James Madison University, 235 Martin Luther King Junior Way, Harrisonburg, VA 22807. armst2kj@jmu.edu.

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KEY POINTS

- Athletic training clinicians overwhelmingly reported that standardized patient encounters completed during professional education had positive impacts on their autonomous clinical practice.
- Participants reported personal growth/development as well as professional growth/development from participation in standardized patient encounters, including improved confidence, communication skills, and transition to clinical practice.
- Incorporating standardized patients into professional athletic training curricula can provide real-time patient encounters for athletic training students to supplement didactic and clinical education experiences.

INTRODUCTION

There is growing evidence to suggest that the traditional methods of health care education used to teach clinical skills, such as history taking, physical examination, differential diagnoses, legal/ethical issues, and developing patient care plans, are inadequate.[1,2] Students need exposure to patient care situations where they are required to make clinical decisions similar to those made in clinical practice.[2,3] Thus, active learning and innovative educational pedagogies and techniques are encouraged,[3] because they improve skills, attitudes, behavior changes, and ultimately patient outcomes more than traditional methods.[4] Standardized patients (SPs) are an evidence-based educational technique used in health care education to provide a consistent approach to preparing students for the rigors of patient care.[5–8]

Throughout various health care disciplines, SPs have been used for both teaching[6,7,9,10] and assessment purposes.[6,9,10] Standardized patient encounters are superior to more traditional forms of instruction and assessment because the experience of interacting with a real person enables students to be better suited for developing interpersonal and interprofessional communication[7,8,10,11] and clinical skills.[12,13] Because a majority of SP encounters are structured to resemble an ordinary patient interaction, the student has limited time to obtain a patient history, complete a physical examination, and communicate the treatment plan.[11] Because of this, SPs provide a consistent and uniform method for both teaching and assessment[5,6,9,10] with continued emphasis on providing valuable feedback[14] to the examiner.

Athletic training educators have only recently begun using and implementing SP encounters.[10,12,15,16] These patient encounters are important during professional education, as they allow educators to focus on synthesizing knowledge, skills, and attitudes that are integral to providing patient-centered care.[17,18] Previous researchers have examined students'[7] and educators'[19] perceptions of using SP encounters during professional education. However, the longitudinal impact of these SP encounters has not been examined beyond professional education. Therefore, the purpose of this investigation is to discuss how SP encounters during professional education benefited clinicians during clinical practice as well as the transition to autonomous clinical practice. The following questions guided the investigation:

1. How did completing SP encounters during professional education impact clinical practice?
2. How did completing SP encounters impact your transition to practice?

METHODS

Design

This study used a qualitative research design performed and analyzed in a consensual qualitative research (CQR) format. Consensual qualitative research was developed through the integration of phenomenology, grounded theory, and comprehensive process analysis.[20] Combining these approaches allows for increased emphasis on gaining consensus throughout the analysis to identify the best representation of the data from various perspectives,[20] enabling the research team to capture some of the complexities of the data because different members inevitably perceive different nuances.[20] Multiple researchers are used in the data analysis process in CQR: each individual reviews the data independently and then researchers come together to reach consensus on the meaning of the data.[20] This variety of viewpoints help to circumvent the biases of any one member of the research team.[20] The consensus process is central to the trustworthiness, as consensus allows equally valid, multiple realities to the combined data during analysis to represent the data richly and thoroughly. Thus, if multiple researchers have independently analyzed the data and agree on the interpretation, there is confidence that similar individuals would also agree on that interpretation.[20]

Participants

Participants were recruited purposively for their program's use of and exposure to SP encounters during professional education in an athletic training program. The longitudinal aspect of the study was purposeful, as it allowed tracking of participants after they had had at least 1 year of clinical practice experience. For inclusion in this study, participants had to have completed multiple SP encounters during professional education and to have completed at least 1 year of professional practice as a certified athletic trainer (AT) at the time of the interview. Through the known population, random sampling was completed to identify potential participants. Snowball sampling was also used during data collection, where participants informed the researchers of other eligible clinicians that met the inclusion criteria. Thirteen athletic training clinicians (7 women, 6 men; mean age = 28.15 ± 6.04 years) who had provided patient care for an average of 3.69 ± 1.43 years of experience beyond

Table 1. Participant Demographics

Participant	Sex	Age	Experience, y	Athletic Training Practice Setting
Alicia	F	28	6	Outpatient clinic
Brian	M	29	5	Military
Daphne	F	26	2	Secondary school
Bart	M	27	5	College/university (DI)
Sarah	F	31	5	Secondary school
Peter	M	23	1	Secondary school
Elizabeth	F	25	3	College/university (DI)
Wren	M	28	4	College/university (JC)
Emily	F	25	4	Secondary school
Wally	M	26	4	Secondary school
Ellee	F	24	2	Secondary school
Hayley	F	27	3	College/university (JC)
Barry	M	27	4	Secondary school

Abbreviations: DI, National Collegiate Athletic Association Division I; F, female; JC, junior college; M, male.

professional education volunteered to participate. Participant practice settings included college/university (4), high school (7), outpatient clinic (1), and military (1). Our participants were graduates of 2 different Commission on Accreditation of Athletic Training Education–accredited professional athletic training programs, representing 2 National Athletic Trainers' Association districts (districts 4 and 9). Participant demographics are presented in Table 1. Each participant was assigned a pseudonym.

Instrumentation

The semistructured interview guide was developed for this investigation and included 16 open-ended questions. The aim of the interview guide was to determine the long-term impact that SPs completed during professional education had on a clinician's patient-centered care and soft skills. Subset questions were used as a prompting tool throughout each section of the interview guide. Keeping the interviews semistructured allowed the data collection to remain robust, so that participants could elaborate where appropriate. Following CQR, the interview guide was developed based on this previous research,[7,10,12,15,16,21] attempting to understand how SPs were used in professional education as an assessment measure of students' clinical skills[7,10,12,15,16,21] and soft skills.[12,22,23]

The first 10 questions pertained to understanding the clinicians' perception of how SP encounters completed during professional education impacted their ability to provide patient-centered care. The remaining 6 questions related to the clinicians' perceived understanding of how completing SP encounters during professional education impacted their development of soft skills. The interview guide was reviewed for content and clarity by the other members of the research team, as well as 2 educators with expertise in qualitative research. The primary researcher performed pilot testing of the interview guide with 2 clinicians who did not meet the inclusion criteria because of less than 1 year of clinical practice, and minor modifications were made in wording to increase clarity to develop the final interview guide (Table 2).

Table 2. Final Interview Guide

Patient-Centered Care

1. Tell me about your most memorable SP encounter that you completed during your professional education.
   a. What about this encounter is so memorable?
   b. What did you learn from this encounter?
2. How have the SP encounters during your professional education impacted your clinical practice?
3. How have the SP encounters impacted your development of clinical skills?
4. What specific SP encounters were impactful to your clinical practice and why?
5. How did your academic coursework prepare you for clinical practice?
6. What specific area(s) of clinical practice were you not adequately prepared for through your academic coursework?
7. How did your clinical experiences prepare you for clinical practice?
8. What area(s) of clinical practice did your clinical experiences not adequately prepare you for AT practice?
9. How did the SP encounters facilitate reflection?
10. What additional encounters would have been beneficial or are needed during professional education?

Soft Skills

1. What skills were reinforced during the SP encounters?
2. How did the SP encounters impact your interpersonal skills?
   a. When interacting with a patient?
   b. When interacting with other health care professionals?
   c. When interacting with a supervisor?
   d. When interacting with a family member or coach?
3. How did the SP encounters impact your confidence as an AT?
   a. When obtaining a patient history and physical exam?
   b. When initiating contact with a new patient?
   c. When delegating responsibilities and referring patients to other health care professionals?
   d. In your overall abilities as an AT?
4. How did the SP encounters impact your approach to patient care? Use prompts as needed:
   a. Understanding your awareness of personal limitations?
   b. Displaying empathy?
   c. Attitude/demeanor toward patients?
   d. Ability to control your emotions?
   e. Active listening skills?
   f. Nonverbal communication?
5. How did your experience with SP encounters help you transition into independent professional practice as an athletic trainer?
6. Do you have anything else that you would like to share regarding how the SP encounters impacted your professional practice?

Abbreviations: AT, athletic trainer; SP, standardized patient.

Data Collection

Participants who met the criteria were contacted via e-mail to obtain consent for participation and preferred method of interview. Once informed consent was obtained, interviews were scheduled. Because of participant availability, interviews were conducted via telephone. Semistructured interviews of approximately 45 minutes in length were used to collect data. Interviews were conducted by the researchers (6 completed by researcher 1, and 7 by researchers 2 and 3 together). After the completion of interview 12, the research team determined that data saturation had occurred. To ensure data saturation had been achieved, 1 additional interview was completed to confirm no new information was elicited in responses to interview questions. To maintain anonymity, each participant was given a pseudonym.

Procedures

Institutional review board approval was obtained prior to data collection. Clinicians who responded to the recruitment who met inclusion criteria were scheduled an interview time. To initiate the interview, the researcher described the purpose of the study and reviewed confidentiality, obtained informed consent, and addressed all participant questions. Time restraints were not placed upon the interview; however, all lasted 30 to 45 minutes. All interviews were audio recorded and transcribed verbatim by a professional transcriptionist. The transcripts were reviewed by the research team and cleaned for accuracy.

Data Analysis

All members (3 researchers) of the research team were trained in qualitative analysis and CQR. Data were analyzed via the CQR method. The CQR method consists of independent review by each member of the research team. Each member identified a set of preliminary codes from his or her independent review, followed by a group discussion and consensus to develop a preliminary codebook.[20] Once the preliminary codebook was established, further discussion and review of transcripts occurred to develop the final codebook. The consensus process allows for multiple-analyst triangulation, and the variety of viewpoints helps decrease researcher bias while developing an understanding of the meaning of the data.[20] The final process of data analysis included frequency counting of categories, which assigned a numerical value to the number of participant cases in which each category was identified (Table 3). Frequency counting allows a depiction of representativeness of the data by determining how often each category was applied across the sample.[20]

Trustworthiness

Several strategies were implemented to establish trustworthiness of this study. Transcripts were sent to participants to ensure accuracy of the interview as a method of member checking.[24] As described by CQR, member checking allows the participant not only to check for accuracy, but to provide further comments on how well the data represent the experience described.[20] Three participants responded to the member-check e-mails, all indicating that the transcripts were accurate representations of the interview. Additionally, an external auditor was used to review the transcripts and codebook to gain further consensus on the codebook. This ensured accuracy of data representation while allowing for multiple perspectives to investigate the meaning of the data.

Table 3. Participant Cases by Category

Category	Frequency[a]	No. of Participant Cases
Personal development		
Communication	General	13
Patient rapport	General	12
Self-reflection and awareness of limitations	General	13
Professional growth and development		
Realistic patient experiences	General	13
Making clinical decisions	General	13
Patient-centered process	General	12
Transition to practice	General	12

[a] Frequency: general = all or all but 1 participant.

RESULTS

Two themes emerged from data analysis: personal growth/development and professional growth/development. Personal growth/development was subdivided into 3 categories: communication, establishing rapport with patients, and self-reflection and awareness of limitations. Professional growth/development was subdivided into 4 categories: realistic patient encounters, making clinical decisions, emphasis on the patient-centered care process, and transition to practice. The frequency of participant cases is presented in Table 3.

Personal Growth/Development

Communication. Participants described how the SPs completed during their professional education had positively impacted their communications skills with patients, caregivers, supervisors, administrators, and other health care professionals. Most participants commented on the importance of effective communication across various levels (eg, patient, caregiver, administration) and health care professions for creating positive patient outcomes. It was also stressed that communication is not just in verbal form, but also conveyed through attitude, body language, and tone of voice. For example, Bart commented,

> *The biggest one [soft skill set] of an athletic trainer is communication... if you don't have communication skills it's going to be tough to gain trust. You've got to communicate with the coach. You've got to communicate with other staff. You've got to communicate with your patients, your GAs [graduate assistant], and others. You've got to communicate treatments effectively.*

Given the integral role that communication plays, the use of SPs enabled participants to better communicate with patients. As Sarah stated, "They've [SP encounters] given me a foundation for how to communicate with other health care professionals and delegate those responsibilities." Furthermore, Alicia explained that,

> *Clear communication used in standardized patient encounters and being able to educate them [the SP] is a big component*

of what I do now. So, I think that having that experience in nonverbal communication... it can be very key when it comes to treating patients.

Similarly, Wally shared his views regarding how the encounters have positively impacted his patient care:

Obviously, some people are better at making their patient more comfortable, and when you are able to effectively communicate with them [patient] without making them uncomfortable or making the situation awkward.

Establishing Rapport with Patients. Establishing rapport with patients referred to the perceptions of how engaging with an SP has enabled the participants to develop rapport with their current patients. As Brian explained,

Be more open to just general conversation with the patient, a better bedside manner. If you're comfortable, the patient is usually more comfortable, and it makes the evaluation process a little bit smoother.

Although many participants voiced the benefits of these encounters to their clinical practice, Elizabeth shared how establishing patient rapport was enhanced: "It's more than just my mannerisms, that we always harped about not being so close up to the patient, so the patient would feel more comfortable."

As a part of establishing patient rapport, the need exists for developing therapeutic relationships with patients. In the fast-paced real world of clinical experiences, these concepts may often fall through the cracks. Through the interviews, Paige described:

What I really learned was how to confront or comfort a patient about something that they have going on in their life...it [SP testing] definitely has given me confidence in just one-on-one evaluations, working with different personalities and in certain cases, different injuries.

Confidence is one aspect of establishing rapport with patients. All participants expressed that the SP encounters resulted in increased confidence when interacting with patients. As Ellee stated, "It made me more confident to interact with people and give them their diagnosis and make them feel more comfortable while they're going through whatever situation they were in." Similarly, Brian shared his confidence in this ability to establish rapport with patients: "I have learned to be more confident and more open to just general conversation with patients."

Likewise, Barry expressed that he believed the SP encounters improved his confidence as a clinician. He shared:

Every situation is new, and you don't know who's going to be in there. So, all of them [SP encounters] should have improved your confidence with new people, new patients. I know it did for me. Just going into a situation that unknown, being able to interact with someone, comfort them if they need it and let them gain your trust, let them see that you're a professional. You do know what you're talking about.

Self-Reflection and Awareness of Limitations. Self-reflection was identified as an important skill that increased participants' awareness of their limitations in patient care. The participants shared how the use of SPs facilitated this process during their time in the program. As Sarah expanded:

They [SP encounters] impacted me a lot because of seeing the video and getting feedback from professors and being able to critique yourself.... It definitely gives you a sense of where you are at the time and what you need to work on, as far as patient interactions, doing evaluations, and whatnot. And today, I still think about those, especially now being a preceptor and supervising students, and hearing them go through the experience.

Similarly, as Elizabeth shared,

Self-reflection has really been the big thing for me, is, just having that routine of evaluating myself....It [SP encounters] gave me the foundation of knowing what I'm good at and what I'm not good at and what I need to work on to be a more well-rounded clinician.

The self-reflection that was ingrained during professional education had led the participants to incorporate reflection into clinical practice. As Daphne added:

It [self-reflection] wasn't really something I ever thought about until we had our SPs. And now I constantly think about it after every time I have someone come in. Whether it's someone I've been treating for a year or someone that is brand-new to the school. I think about what I did well with the patient, what could I do differently next time, so I can continue to have better patient encounters every time... and that wasn't something [I] really thought about until we had the SPs.

The feedback provided from various individuals through the process also facilitated self-reflection. As discussed by Brian,

I really liked the feedback part of the evaluation. Not only from professors but also the feedback from the patients. I do a lot more reflection now. I think that is a part of it, we do documentation review in my current job and with that, you have to do a lot of self-reflection.

Participants also expressed how self-reflection led to a better understanding of one's awareness of limitations. As shared by Alicia,

[SP encounters] assisted in knowing when to refer someone or knowing when this is something that is out of your scope of practice and looking at the patient as a whole versus individually.

Similarly, Wren emphasized how self-reflection and SP encounters helped him transition to autonomous practice:

Once I became certified and practicing on my own, just talking to other people that are in the profession that did not have SP cases, they just seem, almost timid in certain things. I didn't feel like that at all, I just seemed to dive into any situation and be confident in myself and make a decision.

Professional Growth/Development

The second theme that emerged included the facilitation of professional growth and development, noting how participating in SP encounters connected to professional growth and development as a health care professional. This theme is described in the following subthemes: (1) realistic patient

encounters, (2) making clinical decisions, (3) emphasis on the patient-centered care process, and (4) transition to practice.

Realistic Patient Encounters. Researchers have reported that interacting with SPs is a worthwhile and realistic experience for athletic training students,[4] and our participants agreed; as Elizabeth commented, "I would say that most of the SPs that I interacted with, if not all of them, I have encountered at least one patient with a similar pathology in clinical practice." Similarly, Ellee added that the SPs were representative to real patients seen in practice in her statement:

> *I think it actually helped a lot going through the process of all the SPs, because when I go into the clinic in the morning and I'm getting all that information and going through it before the doc comes into the room to do his final eval... It's almost like I'm doing a SP every time I go in the room, trying to get as much information as I can, get it correctly so I can give it to the doc before.*

Making Clinical Decisions. The ability to make clinical decisions was cited by nearly all participants as a benefit of having completed SP encounters. For many, these patients represented a first exposure to a patient with a particular pathology, coupled with providing one-on-one care, meaning that the participants were solely responsible for making patient care decisions. These encounters challenged the student to develop strategies that fostered the student's ability to think critically and reflectively and transfer these skills into professional practice. Wally referenced his past experiences:

> *I think it [SP encounters] gave us a way on our own, independently away from our clinical instructor who we could rely on to help us out ...so it helped with independence and forced you to do it independently.*

Barry commented on one particular SP encounter that required clinical decision-making:

> *One case was not really an injury at all, it was talking to a patient that learned he was HIV+. It just threw a wrench in the chain, something we didn't expect. That was good because it was something different that you will encounter in real life and have to work through the patient's needs.*

Elizabeth echoed that the SP encounters improved her ability in making clinical decisions:

> *They definitely made me become more thorough and more confident in my skills and knowledge. And it made me not go with just how the patient presented, but made me ask more questions, so I could get a better understanding of what was actually going on with the patient.*

Part of making clinical decisions included the participant's ability to view the patient holistically, rather than focusing on the overt clinical presentations of signs and symptoms. Wally, in particular, shared his process of engaging in holistic patient care:

> *I think that it [SP encounters] taught me specifically probably to slow down a little bit and to do a little bit more of a thorough exam, make it very systematic so you're doing the same thing, and just go through slowly in a systematic way helped me out as opposed to just jumping to conclusions when you think it's something, which I think some athletic trainers still do.*

Emphasis on Patient-Centered Care Process. Patient-centered care has recently become the driving force in making health care decisions. Patient-centered care means providing care in a way that is meaningful and valuable to the patient. Listening to patients and understanding their needs and preferences are important, as Alicia explained:

> *I think that the individuality of each case and being able to have different personalities so to speak, I think that maybe each SP really prepared for me practice. The [SP] case that I did where the patient had an eating disorder, I had to get as much information as I could, while making sure my treatment plan followed what the patient wanted. So, encountering different types of personalities and situations was beneficial.*

Other participants expressed the importance of effective listening to the patient's perspective, values, and needs in providing patient-centered care. Peter said,

> *The [SP experience] gave me an opportunity to talk with the patient, about how they feel, about their performance, what they can and what they might be able to expect going forward.*

Wally noted that,

> *Some people were better at making patients feel more comfortable and got better results with the patient when they were able to effectively listen and ask follow-up questions without making them uncomfortable or making the situation awkward.*

The emphasis on patient-centered care extended beyond the traditional musculoskeletal pathologies that ATs care for. As Alicia explained:

> *I learned that patients are multifaceted, it's not all musculoskeletal based. It [patient care] is all-encompassed into different areas including mental health and disordered eating and nonorthopaedic. We need to be well versed on and be able to identify these and know when to refer out as well.*

Similarly, Emily reflected on providing holistic care for her patients:

> *When I see patients now, I go through the full process ... so I can make sure I am providing a good diagnosis, treatment plan, and providing the patient the most information I can. That began during the SP cases. I remember having to go through the process in my head ... get a history, complete the evaluation, provide education, explain a treatment plan, ensure understanding. And when I go in to see a patient now, I go through that same process in my head and get everything down.*

Transition to Practice. Our participants expressed how they were socialized into their future professional roles through authentic, meaningful, relevant educational experiences of the SP encounters. Overwhelmingly, participants shared that completing SP encounters during professional education aided in their transition from students to autonomous clinicians. These encounters were perceived to prepare students for the role of clinician as they faced a myriad of patients each day presenting with differing signs and symptoms. Hayley shared how the SPs prepared her for practice:

> *Overall, it [SP encounters] made me more aware of what was going to come at me. I felt that I was probably a little more*

prepared than someone that had never encountered a SP in their education. I think I was more prepared for professional practice with those. And we probably could have benefited from more of them.

Brian echoed that sentiment:

I definitely feel like I was a little bit ahead of the curve of people who never had experienced those standardized patients… I think that if we didn't do them, I wouldn't be or have been as confident as an athletic trainer going into my first job, honestly. If we hadn't done those [SP encounters] I would feel much more timid and just, less prepared overall.

When reflecting on what aided in his transition to practice, Bart shared that the repetition, both in of having multiple SP encounters and of the patient care process, increased his confidence in his own skills and abilities:

I think you gain confidence in yourself. I think it helps you master the steps, and you transition the steps into everyday practice. And if you continue to do the steps and if you're doing, mastering the stuff that you tried to work on during the SPs, it only makes you better and better as independent being on your own.

Alicia remarked on the importance of repetition and having exposure to multiple types of patient encounters:

I would say that having the consistent face-to-face patient interactions has been or was crucial and very important for what I do now… From being in the high-level, high-stress situations and being able to translate that into your practice. Just being in that situation itself really developed my ability as an athletic trainer.

DISCUSSION

The recent increase in the research on SPs in athletic training education[7,10,12,13,15,16,19,21] is most arguably a testimony to the importance of this educational technique and the benefits that have long been valued by medical education. Researchers have reported that interacting with SPs is a worthwhile and realistic experience for athletic training students,[4] which was validated by our participants. Inquiry into the benefits of SPs continues to grow in athletic training education; however, the longitudinal impact of these encounters has not been examined. Thus, our purpose was to understand how SP encounters completed during professional education benefited practitioners in the transition to practice and during clinical practice.

As athletic training and health care continue to emphasize and organize clinical practice and research activities, disablement models provide a common language among educators, clinicians, and researchers for the delivery of patient-centered care.[25] Disablement models have provided a paradigm shift to clinical practice in many health care practices. Nagi,[26] who introduced the first disablement model in 1965, acknowledged the importance of the impact of environmental, family, societal, and community factors on disability. Based on this assumption, the consequences of disease and injury for an individual should be described both at the level of the person and at the level of society.[25] In the present study, participants supported that the SP encounters provided an opportunity for intentional holistic patient-centered care beyond that of traditional musculoskeletal pathologies. Additionally, participants detailed how the encounters enabled them to develop rapport with their current patients and how this benefited their transition to clinical practice within the disablement mindset as they were able to see the whole person and not just the pathology. Overall, the participants emphasized how the one-on-one patient encounters with the SPs allowed the development of those specific interpersonal skills critical to engaging in patient-centered care and disablement model frameworks.

Interpersonal communication was conveyed as a skill enhanced by SP encounters. Multiple researchers[27,28] in athletic training have documented communication skills as lacking in new athletic training graduates, and those students need to be given opportunities to practice effective communication on a variety of topics with a variety of stakeholders. In the present study, participants described how SP encounters created diverse communication opportunities through exposure to various types of patients. Participants shared how the encounters completed during their professional education had positively impacted their communication skills across various levels (eg, patient, caregiver, administration) and among various health care professions for creating positive patient outcomes. Given the integral role that communication plays, participants agreed that the use of SPs assisted in providing a foundation for how to communicate with other health care professionals.

In addition to the need for interpersonal communication, athletic training also requires that clinicians possess decision-making and problem-solving skills. Well-developed critical thinking and the ability to discriminate among various therapeutic interventions and pathologies is a fundamental behavior for the practicing health care professional. However, although athletic training students receive a great deal of clinically applicable information, many are not explicitly trained in efficient methods for channeling this great volume of data into sound clinical decisions.[29] In the present study, the ability to make clinical decisions was cited by nearly all participants as a benefit of having completed SP encounters. Along with clinical decision-making, athletic training clinicians need to be aware of what they can and can't do, when they need additional assistance, and when they need to refer for additional expertise. Participants expressed that the SP encounters provided opportunities for students to practice decision-making and problem-solving skills. Clinical application is the central connection between the didactic setting and the transition to practice, and for the current study these encounters challenged the student to develop strategies that fostered the student's ability to think critically and reflectively and transfer these skills into professional practice.

Reflection as a skill transferred to professional practice has been cited within athletic training education as an essential tool for clinical decision-making. It assists the students in the transition from classroom knowledge to real-world application and subsequent growth as a practitioner in the field.[30] The ATs in this study expressed these sentiments equally, sharing how self-reflection was facilitated through the SP process. Participants shared how routine reflection through each SP encounter not only led them to increased awareness of their own limitations, but also provided the foundation for their incorporating reflection into their clinical practice.

The National Athletic Trainers' Association Transition to Practice Workgroup[31] defined *transition to practice* as a complex process whereby newly credentialed ATs, while redefining their sense of self during disruptive life events, develop and are supported from education to clinical practice, regardless of practice setting. The recent increase in the research[32–34] in athletic training transition to practice is evidence of the importance of this multifaceted process. Unfortunately, previous researchers shared that students expressed that issues of transitions to practice included the topics of budget, insurance, and professionalism,[32] leaving students not fully prepared for the rigors of professional practice. In the present study, participants shared that completing SP encounters during professional education aided in their transition from students to autonomous clinicians. These encounters were perceived to help prepare students for the role of clinician and increase students' confidence during the transition. Furthermore, participants shared that the repetition, both in having multiple SP encounters and of the patient care process, supported the transition to clinical practice. Similarly, athletic training students reported that repetition of patients through clinical experiences[34] resulted in higher confidence for the transition to practice. These results indicate the impact of SP education within the athletic training curriculum to offer a successful transition opportunity for ATs.

Another element to consider in the transition to practice is the notion of patient-centered care. The Institute of Medicine[35] separates patient-centered care into 8 dimensions, including respect, information and education, coordination of care, emotional support, physical comfort, involvement of the family, continuity and transition, and access to care.[36] In the present study, participants disclosed that completing SP encounters provided an opportunity to focus on these dimensions of holistic care beyond the traditional musculoskeletal pathologies. The encounters provided opportunities for coordinated and integrated interactions between the patient, provider, and student. Furthermore, participants shared that the encounters provided multifaceted patient exchanges with increased diversity to enhance communication skills and provide both emotional and physical support of the patient as the student planned for the overall next steps in the continuity of and access to a comprehensive plan of care. From a disablement model perspective, these shared experiences of the participants within SP encounters should not be overlooked. These applications of dimensions of patient-centered care assisted in responsive and responsible transition to practice.

And although our research demonstrates that athletic training students perceive SP encounters to have a longitudinal impact on personal and professional growth and transition to practice, educators must be intentional in the development of cases to integrate these "practiced applications" as shared through our current research. Establishing educational goals of the encounter to surround the concepts discussed, such as communication, development of rapport, case management, and dealing with difficult situations, is essential to the design of SP case. Incorporating within the case development a comprehensive plan of care with a provider and/or family member to facilitate patient-centered care is fundamental to long-term skill development. And, as shared by our participants, deliberately including components of reflection within the case development is pivotal to the practitioner's long-term practice. By designing holistic and reflective SP encounters for students as they progress from novices to entry-level practitioners, we can help to ensure that students are exposed to well-designed encounters that can positively influence their transition to professional practice.

LIMITATIONS AND FUTURE RESEARCH

Although we were able to identify a perspective from current athletic training practitioners from multiple practice settings, our research is limited in generalizability to all athletic training practitioners because only a small number of professional programs are using SPs within the curriculum. Our small sample size included the population of interest, as more programs are beginning to implement and use SPs within professional athletic training curricula. As more programs begin to implement this teaching technique, further research is needed to determine if these findings are consistent with a larger sample of practitioners. Additionally, as the profession transitions from baccalaureate to postbaccalaureate as the professional entry level, research should be completed to longitudinally explore clinicians who graduated from postbaccalaureate professional programs. Future considerations should involve infusing more holistically integrated cases surrounding psychosocial skills, conflict resolution among all stakeholders of the health care team, health care administration, and an increase in diverse patient population exposure.

CONCLUSIONS

Health care education needs to advance to meet the ever-changing needs of patient care. Athletic training education has begun using SP encounters to provide students with real-time patient encounters in a safe environment to prepare students for athletic training clinical practice. Current athletic training practitioners who engaged with SPs as a component of professional education reported both personal and professional growth/development because of these encounters. Of most significance, the participants shared a perceived increase in confidence in completing clinical skill and interpersonal communication as they transitioned to autonomous clinical practice and becoming an independent practitioner. Additionally, participants highlighted that SP encounters should continue to be infused throughout the athletic training curriculum during professional education.

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