

The Impact of Clinical Experiences from Athletic Training Student and Preceptor Perspectives

Sarah S. Benes, EdD, ATC*; Stephanie M. Mazerolle, PhD, ATC†; Thomas G. Bowman, PhD, ATC‡
*Boston University, MA; †University of Connecticut, Storrs; ‡Lynchburg College, VA

Context: Clinical education is an integral part of athletic training programs. This is where students should develop their professional identities and become socialized into the profession. Understanding the student and preceptor perspectives of the impact that clinical experiences have on students can provide valuable insight into this aspect of athletic training education.

Objective: To evaluate the impact of clinical education on the professional development of athletic training students from the student and preceptor perspective.

Design: Qualitative study.

Setting: Commission on Accreditation of Athletic Training Education–accredited undergraduate programs.

Patients or Other Participants: A total of 15 participants (7 athletic training students and 8 preceptors) from four schools enrolled in our study.

Data Collection and Analysis: One researcher conducted semistructured interviews over the phone or in person. Data analysis used a general inductive approach to reveal the dominant themes that related to our purpose. We achieved data credibility through multiple analyst triangulation, peer review, and member checks.

Results: Athletic training students and preceptors agree that clinical education is integral to the professional development process. Realistic and positive experiences and diversity in experiences were identified as factors affecting professional growth during clinical education experiences.

Conclusions: Athletic training students and preceptors have similar views on the importance of clinical placements on professional development. Clinical experiences provide students with the opportunity to learn more about the profession, affirm their career choice, practice knowledge and skills, and learn about themselves personally and professionally. The student and the fit/match of the placement directly impact the students' clinical experiences.

Key words: Clinical education, professional development, athletic training education, professional socialization, experiential education/learning

Dr Benes is currently Program Director of Physical and Health Education Programs in the School of Education at Boston University. Please address all correspondence to Sarah S. Benes, EdD, ATC, School of Education, Boston University, 2 Silber Way, Boston, MA 02215. ssparrow@bu.edu.

Full Citation:

Benes SS, Mazerolle SM, Bowman TG. The impact of clinical experiences from athletic training student and preceptor perspectives. *Athl Train Educ J*. 2014;9(4):156–165.

The Impact of Clinical Experiences from Athletic Training Student and Preceptor Perspectives

Sarah S. Benes, EdD, ATC; Stephanie M. Mazerolle, PhD, ATC; Thomas G. Bowman, PhD, ATC

INTRODUCTION

Athletic training students are socialized into their future professional roles through their clinical education experiences. Although time spent in the classroom is necessary for athletic training students to gain fundamental knowledge, clinical settings are also a critical component in their professional development, mostly because it provides authenticity, an essential step for learning.^{1,2} Realistic clinical education experiences also have been linked to persistence to graduation for the athletic training student because they allow students to visualize themselves in the role of an athletic trainer.³ Regardless of assignment, an educational experience that is positive, realistic, and fosters a strong, supportive learning environment also helps the athletic training students persist to graduation.^{3,4}

A positive, meaningful clinical education experience is facilitated by a preceptor supervising the athletic training student. Mentorship received from preceptors and athletic training faculty have also been found to be a catalyst for entrance into the athletic training workforce, and it is one of the most important socializing elements.⁵⁻⁷ During the clinical education experience, the preceptor serves as a role model for the athletic training student by demonstrating and exhibiting appropriate professional behaviors.⁷ This modeling allows them to gain an appreciation for the attitudes, values, and skills necessary for them to succeed in their future roles as an athletic trainer. In fact, preceptors who model their passion for the profession while providing a realistic representation of the roles and responsibilities of the athletic trainer can help stimulate professional enthusiasm and passion in the athletic training students.⁴ In summary, athletic training students value genuine clinical experiences that are facilitated by their preceptor because it helps them develop professionally and stay committed to their future role.⁴

As outlined in the Commission on Accreditation of Athletic Training Education (CAATE) program standards,⁸ the athletic training student should be provided with clinical education experiences that will allow the student to succeed in any athletic training clinical setting. A recent study highlights the value in clinical diversity as outlined in the CAATE guidelines, because senior athletic training students suggested that having the chance to view multiple athletic training clinical settings allowed them to gain confidence to assume the responsibilities of an athletic trainer upon graduation.⁵ Clinical experience appears to have a positive influence on the athletic training students' development of professional excitement for the athletic training profession,⁹ because they are allowed to interact with preceptors who can model appropriate professional behaviors and excitement for the field. Clinical experiences have also been shown to influence time spent engaged in learning activities, which is an important aspect of professional development. In two separate investigations, athletic training students assigned to mixed-extremity sports (football, cheerleading, gymnastics)

spent more time consistently engaged in learning activities, compared with those assigned to single-extremity sports.^{10,11} Moreover, clinical integration of the student has been discussed as being necessary for assimilation into the role of the athletic trainer. Recent data suggest that clinical integration can be impacted by the clinical-experience site.¹² The athletic training student feels frustrated and less integrated when engaged in activities that are considered as time wasting or menial.^{3,10} Given that clinical integration is related to student motivation and eventual persistence,^{13,14} matching students to appropriate clinical sites seems as important as matching athletic training student and preceptor characteristics.

Despite the importance of clinical integration to the student's development, there has been little research examining the role of the clinical experience from an integrated or multiple stakeholder approach. Traditionally, scholars have taken a quantitative approach, examining time spent engaged in learning activities and overall assessment of time spent in clinical education.^{10,11} Therefore, the purpose of our investigation was to evaluate the impact clinical experiences have on the professional development of the athletic training student from the student and preceptor perspective using a qualitative lens. Special attention was given to the process of professional socialization, retention in the profession, the development of professional commitment, and perceptions of the profession.

METHODS

Methodological Design

This study used a qualitative, descriptive research design and a general inductive¹⁵ approach for data analysis. The general inductive approach allowed the researchers to examine themes as they emerged from the data, providing a rich understanding of the participants' thoughts and opinions about clinical experiences. One of the researchers conducted individual, semistructured interviews with participants (which included both athletic training student and preceptors). The semistructured format allowed the researcher flexibility to probe more deeply into responses, to include follow-up questions where appropriate and to provide the participant the opportunity to guide the discussion, leading to more robust data. Having one researcher conduct the interviews enhanced the quality of the data by minimizing differences in the interview process. It also provided the opportunity for an independent review of the data during our analysis, which further enhanced their quality and minimized bias.

Participants

A total of 15 participants enrolled in the study (7 athletic training students and 8 preceptors). Data analysis was ongoing, and the researchers determined that data saturation had been reached with 15 participants; therefore, we recruited no additional participants. The average age of the athletic

Table 1. Athletic Training Students' Participant Information

Athletic Training Student Participants	Academic Standing	Number of Clinical Placements	Settings
Amanda	Senior	2	High school, university/college
Paul	Sophomore	2	University/college
Donna	Sophomore	2	University/college, high school
Madison	Sophomore	2	University/college, high school
Tanya	Sophomore	2	Middle/high school, university/college
Aaron	Senior	5	High school, university/college
Shelly	Senior	5	University/college, high school

training students was 20 ± 1 years. All were from National Athletic Trainers' Association (NATA) District 1 university/colleges; 5 were women and 2 were men. The average number of years that the preceptors had been certified athletic trainers was 10 ± 7 years, and they had been preceptors for 6 ± 4 years. Two preceptors were men and 6 were women. Five preceptors were working at the university/collegiate level and 3 were working in a secondary school setting. The final sample included participants (athletic training students and preceptors) from 4 institutions in NATA District 1. The preceptors and athletic training student were not matched, and there was not necessarily a relationship between students and preceptors. Table 1 includes further information about the athletic training student participants, whereas preceptor information can be found in Table 2.

Data Collection Procedures

Prior to data collection, we obtained institutional review board approval from Boston University and an authorization agreement from the University of Connecticut institutional review board to accept the approval of the first board. Using purposeful convenience sampling, we contacted program directors and head athletic trainers and/or clinical education coordinators of college/universities with CAATE-accredited athletic training programs. We selected this initial sample based upon the professional networks of the lead authors, which we used to facilitate recruitment. We asked the aforementioned gatekeepers to forward an e-mail to all athletic training students who have completed at least one clinical experience as part of their athletic training education. Athletic training students who were interested in participating in the study contacted the researchers directly. One researcher, after receiving permission from the program director, recruited athletic training students in person at their institution by visiting a class to explain the study, answer questions, and distribute informed consent forms. This researcher does not

currently work in the athletic training department at the school but does work in a different school/college at the university, so there was no influence over the recruited/enrolled participants. The head athletic trainer/clinical education coordinator forwarded an e-mail to all of the athletic trainers who served as preceptors for their respective athletic training programs. Preceptors who were interested in participating in the study e-mailed one of the researchers directly, provided informed consent, and enrolled in the study.

Once participants were enrolled in the study, one of the researchers conducted semistructured interviews that lasted approximately 30 to 45 minutes. Both athletic training students and preceptors answered a series of background questions before completing the open-ended questions regarding their thoughts, opinions, and experiences with clinical experiences and the impact that these experiences have on a student's professional development, retention, and perceptions of the field. The interviews were conducted in person when possible or over the phone. All interviews were digitally recorded to facilitate transcription.

Instrument: Interview Guide

We used 2 interview guides in this study; 1 for the athletic training students and 1 for the preceptors. We developed the interview guides based on the purpose of this study and findings from previous studies conducted by the researchers.^{5,16} We also designed the interview guides to help triangulate the findings and capture a holistic understanding of the clinical experience and athletic training student experience. Prior to data collection, our interview guides were peer reviewed by two athletic training scholars and educators with experience in qualitative design. We included all suggested changes, which related to grammar and flow of questions, in the guides before implementation. Table 3 provides sample questions from the interview guides.

Table 2. Preceptor Participant Data

Preceptor Participants	Setting	Years as Preceptor	Number of Athletic Training Students Mentored
Erin	Boarding school (middle/high school)	5	15–20
Mary	High school	3	16
Rachel	University/college	4	20
Anna	University/college	7	25–30
Dan	University/college	9	22–26
Brittany	University/college	1	5
Pam	Clinic/high school	8	12
John	University/college	9	8

Table 3. Sample Questions from Interview Guides

Athletic Training Student Interview Guide	Preceptor Interview Guide
Have you been satisfied with your clinical placement sites? Please explain.	Have you been satisfied with your experience as an ACI? Please explain.
What role, if any, have your clinical placements had on your development as a future athletic trainer?	What role do you think clinical placements/experiences play in athletic training student professional development?
Do you think that your clinical placements have influenced your perceptions of the field? If so, how?	Do you think that clinical placements/experiences impact students' decision to remain in the field? Why or why not?
	Do you think that clinical placements/experiences impact students' perceptions of the profession? If so, how? If not, why not?
Overall, how have your clinical placements impacted your experience as an athletic training student?	Overall, what impact do you think clinical placements/experiences have on athletic training students?

Data Analysis

We analyzed the data using the general inductive process, as described by Thomas.¹⁵ We chose this method of analysis to help uncover the most dominant themes from our data as it related to the specific aims of our study. Initially, we read the transcripts in their entirety to gain a sense of the data. We felt this was an important step to help evaluate the data without bias. We continued this holistic evaluation of the data multiple times, and during the second and third “read-through,” we assigned categories (ie, labels) that we organized into more specific dominant themes to reduce redundancy. Upon completion of the independent reviews by the lead authors, we reviewed the themes and supporting data via phone. Our discussion centered on appropriate classifications of the data, not the overall content of the final themes. The negotiations revealed similar content of the themes but different classifications. Once we agreed upon the final labels for our themes, we shared the findings with our peer—the third author, who was not a researcher in this study but did review data collection procedures and interview guides prior to the study—who confirmed our findings.

Data Credibility

We completed several strategies to ensure credibility of the data as presented in the ensuing section. As reported by Creswell,¹⁷ a minimum of two credibility strategies should be used in a qualitative investigation. We selected 3 including a peer review, member checks, and multiple analyst triangulations. Our peer review was completed in two steps, first with our protocol and interview guide and second with our data analysis. As previously discussed in the instrument section, our peer reviewers were two athletic training educators and scholars with educational training in qualitative design. One of the two athletic training educators, the third author, confirmed the final presentation of the data in our manuscript by reviewing interview transcripts and the presentation of findings. We completed member checks with all participants by e-mailing them the final copy of their transcript for review. All participants were asked to verify the content of the interview transcript prior to data analysis. Two participants did not respond to the researchers' request for review; however, we included the data from their interviews in the analysis. Our final method, multiple analyst triangulation, was completed by the two primary authors autonomously following the aforementioned data analysis steps.

RESULTS

The Figure highlights the themes and subthemes that emerged from data analysis. In-depth descriptions with data from the interviews are presented below. Major themes include realistic experience, positive experience, and diversity of experiences.

Realistic Experience

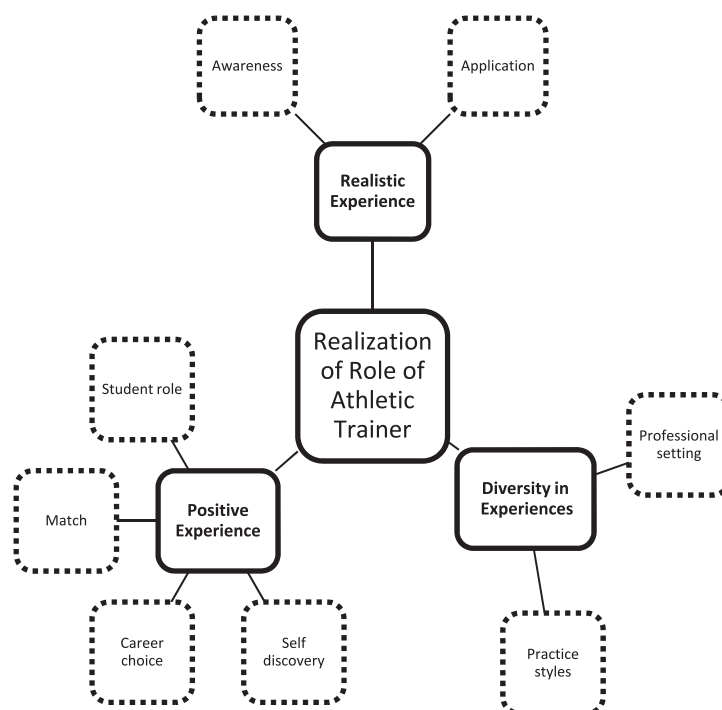
Clinical experiences provide meaningful and relevant opportunities for athletic training students to experience the realities of the athletic training profession while practicing and applying skills and content learned through their coursework. Having these realistic experiences can either solidify their commitment to the profession or help them realize they have different professional goals.

Awareness of the Profession. Athletic training students and preceptors explain that clinical experiences provide an opportunity for students to be exposed to the realities of the profession to gain an understanding of the many aspects of the profession. Amanda, an athletic training student, stated: “My perceptions were already pretty clear . . . and if there is anything that has kind of changed, it's the realization about how much athletic trainers actually know. . . . It's not as easy as it looks.” Paul, another athletic training student, supports this when he explained that his clinical experiences exposed him to things he “wasn't expecting.” The preceptor perspectives can be summed up with Rachel's words: “I think that for the large part . . . the clinical experience is where they kind of learn what is athletic training [*sic*] supposed to look like in practice.” However, preceptors also identified that they believe clinical experiences expose students to the realities of the profession, which can impact their decision to remain in the field. Anna explained:

A clinical setting is a clinical setting—you see it when it's crazy, you see it when it's not. You see interactions between everyone, a coach, a coach and an athletic trainer and a patient and a coach. And you're very, very involved in that, and it's . . . a hard thing. You develop a lot of relationships . . . sometimes they find that athletic training is what they want to do and sometimes they don't.”

Dan supports this with his explanation:

Figure. Themes and subthemes.



I imagine when they do [many] rotations, they may say, and I know they do, I want physical therapy, I want physician's assistant, I want med school. I want out of here. Because of the hours, of the demand, how crazy we work . . . I know it impacts their decision.

The previous comments reflect our participants' perceptions that clinical education can shape the athletic training students' awareness of the profession, which can support persistence toward or departure from the profession.

Application of Skills/Knowledge. Participants all felt that one of the most important aspects of clinical experiences was the opportunity for the athletic training students to practice and apply the skills they were learning in a real-life setting. Clinical experiences allow for the athletic training students to gain the necessary autonomy to apply their knowledge realistically. According to athletic training student Tanya, "It is definitely nice to be able to practice what you are learning in clinical . . . I almost feel like most of the learning I do is in clinical." Aaron stated, "It's us actually learning the skills that we need to have for a career," and later, "just real, real-life setting, working on my professionalism instead of just being in class talking about it." John, a preceptor, stated: "I think that it [clinical experience] is important because that is where you are going to get the real experience, the real-world experience and hopefully be able to apply what you have learned in the classroom." Preceptor Erin described the importance of the opportunity for application when she said, "We're now practicing what they are going to come back to when they are first working." Skill implementation while being engaged in their role is also an important aspect of clinical education, as evaluated by our participants.

Positive Experience

Overall, experiences as described by the preceptors and athletic training students are positive, especially when the

athletic training student is engaged in learning and the preceptor is a strong facilitator of learning. Positive clinical experiences discussed by the participants helped the athletic training students learn about themselves as individuals and professionals, and it affirmed their career choice. Positive experiences are influenced by the match or fit between the athletic training student and the setting/preceptor and by the role the athletic training student takes in the experience. However, not all clinical experiences are positive. Both athletic training students and preceptors discussed that negative events in clinical experiences can be overcome through better events in different experiences or athletic training students "making the best of it," which can lead to the students having an overall positive association with their clinical education. Participants also discussed how negative experiences can help athletic training students decide whether athletic training is truly the profession they want to enter, which can also be viewed as a positive outcome if the student better understands his or her professional goals.

Self-Discovery. Athletic training student Donna explained that her clinical experiences allowed her to learn more about herself and the practical knowledge needed to be a professional clinician. She said, "My clinical experiences have taught me a lot about my own ability to take in information that I have seen in the athletic training clinic and actually going home to study more of what I saw." Shelly, despite her negative clinical experiences, supported this theme when she explained: "I'll say a positive role because I learned a lot about what I didn't want to be and what I don't want to be as a person and as an athletic trainer." Anna, a preceptor, discussed that clinical experiences help students "build [their] own clinical voice," and separately explained that during clinical experiences, students "learn a lot confidence-wise." Finally, learning more about themselves as individuals and professionals influences athletic training students' decisions about the profession. Amanda explained that in one clinical

experience she discovered “that [the high school setting] is where I’m most comfortable, so I actually loved that experience,” and John, a preceptor, explained that the clinical experience “introduces them [athletic training students] and puts them [athletic training students] in this position to be able to make that decision [to remain in the profession] before they have already engrossed them[selves] fully in the profession.”

Affirmation of Career Choice. Athletic training students identified this theme as central to their clinical experiences, with many of them expressing that clinical experiences supported their decisions to be an athletic trainer but also to continue to pursue other fields such as physical therapy. For example, Tanya, who is in a 6-year program for athletic training and physical therapy, stated that her clinical experiences “actually made me realize that I do want to be a physical therapist” but goes on to explain “I could still be involved with athletic training very heavily.” Madison said, “It has definitely helped me to realize that this [athletic training] is definitely what I want to do.” Shelly had a slightly different perspective when she expressed that her clinical experiences “made her want to do everything I possibly can for this major and for the profession to grow.”

Preceptors also described the role of clinical experiences in career choice but felt that the affirmation about career choice related more to the students’ attitudes toward the profession. Mary stated: “I think they will be successful and then stay in the profession if they were ready, like they accepted the responsibility and challenge of the clinical experience and did well, then it’s not much of a change.” Dan expressed a similar thought when he stated, “We hope that they [clinical experiences] reinforce some commitment to the profession that these kids are excited and motivated and disciplined.”

Importance of Match/Fit. Athletic training students’ experiences during their clinical experiences are significantly influenced by how well they are matched to the setting and/or preceptor. Aaron stated about his experiences, “Everything was perfect. They seemed to find the right experiences for each one of us.” Donna and Amanda discussed that despite being hesitant about an experience, both found that in the end “it turned out to be a really good fit.” Amanda additionally stated, “Once I got to know my preceptor and other preceptors that were there, I really actually ended up enjoying my experience.” Erin, a preceptor, explained that she also felt that athletic training students have been matched well with her: “I have had great professional relationships with all my students and it has been a good learning environment.” However, as Paul pointed out, this is not always the case. He explained, “I loved the site but did not love my preceptor at all.” Preceptors also felt that a negative athletic training student–preceptor relationship could be a significant issue during and beyond the experience. Brittany explained that

[Some athletic training students] had such experiences with some preceptors, they didn’t even want to sit for the BOC [Board of Certification]. They said honestly, “I just don’t want to do this,” or because of the way some of them interacted with their preceptors, with their personalities, they had such a bad clash that going to clinical, they hated it.

Rachel mirrored this when she stated: “Everybody can have a setting where you just don’t meld well with that preceptor or

that location . . . but I think if a student has consistently negative experiences, I don’t see why you would stay in the profession.” Both athletic training students and preceptors identified the importance of creating experiences in which students are positively matched because it can influence their feelings about the experiences and impact their decision to remain in the field.

Role of the Student. Participants described the integral role that the athletic training students play in the outcome of their clinical experiences. Madison, an athletic training student, explained: “I think that athletic training students have lot to do with it, because if you go in there and you’re not willing to learn and engage, then I think you’re not going to get as much out of it as you could.” Donna supported this when she explained: “I was a little disappointed that I was assigned to a high school at first, but think I made the most out of the sites I had and just tried to really engage myself in actually being there for the kids.” From the preceptor perspective, Rachel stated:

I think they [athletic training students] play an integral role. You can have a fantastic, positive preceptor who is really excited about their experience and really excited to educate them, but if a student has already made up their mind that they don’t want to be there and they’re not being open to the learning experience . . . it’s going to make it difficult for the preceptor.

Diversity in Experiences

Multiple experiences in various settings and sports are helpful to allow athletic training student to realize which setting best fits their personality and interests to help guide their career choices as well as providing them with an opportunity to experience different styles of practicing athletic training.

Professional Setting. Athletic training students who experience a variety of different athletic training settings during their clinical experiences gain an understanding of the professional settings they can see themselves working in after graduation. Tanya explained that multiple experiences have helped her because she was able to “see the different options” and “see where [she] could picture [herself]” as well as where she would “never want to be.” Donna said that her many experiences have given her a “broader option of engaging . . . in the field.” Paul and Madison both expressed the need for diverse clinical experiences to help them identify their future professional settings. Both athletic training students responded that they could not answer how their clinical experiences have impacted their future settings because they had not experienced enough variety yet. Paul stated, “I haven’t been placed anywhere besides at a college. So I don’t know what it would be like to work in a high school setting.”

Different Styles of Practice. Participants highlighted that exposing students to the many styles of practicing athletic training is an important outcome of clinical experiences. This theme was more dominant in the preceptor data, as first noted by preceptor Mary: “Thinking about all the sites that are in this program, and some of them are ‘old school’ and some of them are from the actual institution and so they practice and interact differently.” Anna continued by stating, “They need

to see that there are different environments. How our staff interacts with each other is different everywhere.” Last, Dan commented, “the more settings you get, the more different perspectives of how to handle injuries, the more variations you have in equipment, and facilities and budgets . . . you cannot have a student prepared to be a professional athletic trainer without getting out in the field in different situations.” The athletic training students also identified the importance of diversity in clinical experiences. Donna stated, “Every placement you’re going to be at, they are going to be running their program differently.” Tanya added to this sentiment by highlighting the importance of “just seeing the range.”

DISCUSSION

Athletic training students and preceptors believe that clinical experiences have a significant impact on the professional development of the athletic training student. Both groups identified that having realistic and positive experiences as well as diversity in experiences are key factors in the socialization and growth of the athletic training student. Our findings complement the existing literature on the professional socialization of the athletic training student, specifically related to the need for diversity in experience⁵ and realistic and positive learning environments.^{1,3,4,9} Clinical education experiences continue to be touted as critical in the professional socialization of the athletic training students, mostly because it provides the chance to engage in their future roles. Beyond this, clinical education is an essential learning tool for today’s millennial student, because they are described as collaborative learners who want real-life experiences as a means to learn.¹⁸ Our study uniquely contributes to the breadth of literature on clinical education experiences by providing textual data and reflection on the athletic training students’ experiences while engaged in clinical education, but also provides the perceptions of the preceptors and students simultaneously. Most studies^{10,11} looking at clinical experiences have only gained the athletic training students’ opinions.

Realistic Experience

Clinical experiences provide opportunities for athletic training students to engage in meaningful, real-life experiences that should help them develop their skills as practitioners and apply the knowledge learned from coursework. The experiences can be essential to the socialization process and professional development of the athletic training student.^{1,5,16,19} Participants in this study further explained that the realistic experiences athletic training students have during clinical education experiences increase their awareness of the profession as well as provide opportunities to practice and apply their knowledge and skills. Both athletic training students and preceptors identified that increasing awareness of the profession was positive for many athletic training students because it provided them further insight and understanding into the realities of the profession, and for other athletic training students, it helped them realize that they have different professional goals. Research has suggested that the athletic training student lacks a full understanding of the profession prior to educational training or integration,²⁰ and through clinical education, the athletic training students may shift their interest away from athletic training to another profession but only after gaining experiences in the role of the

athletic trainer.⁶ Consequently, clinical education experiences are fundamental to the professional development of the athletic training student, regardless of their decision to persist or depart the profession.

The other aspect of the “realistic experience” theme was the importance of clinical experiences providing athletic training students with the opportunity to practice and apply skills. Both athletic training students and preceptors indicated that the hands-on aspect of clinical experiences is extremely valuable for the athletic training student’s development as a future professional. This finding is not unique to the literature; however, it does continue to illustrate the need for hands-on learning that can be structured based upon academic standing or skill level. Frustrations can occur when the athletic training students feel disengaged, particularly when placed in a learning environment that does not match their current academic standing or level.^{21,22} Reflective learning is also an important facilitator in the athletic training students’ development but only when it occurs early in their educational training, when it occurs on a limited basis, or when it is coupled with discourse or application.²³

Positive Experience

Supporting previous research,^{6,24} athletic training students in this study discussed how their clinical experiences solidified their career choices and affirmed their decision to be an athletic trainer. It is interesting that preceptors also described how clinical experiences can affirm career choice but from a professional commitment standpoint. They described how clinical experiences should foster a commitment to the profession and an excitement and motivation in students; a finding comparable to Mazerolle and Dodge⁴ and Dodge and Mazerolle.⁹ This is illustrated when clinical education experiences allow for the athletic training students to develop a professional commitment for their intended field, which helps them gain a holistic impression of the athletic trainer’s role rather than just a one-sided version. For most athletic training students, clinical experiences increase their awareness of the profession in a positive way so that they become committed, passionate professionals. Preceptors play a critical role in fostering professional development, not only by modeling appropriate behaviors and attitudes, but also by encouraging clinical integration through honesty and direct communication.^{9,14}

It is important to note that some athletic training students described how their clinical experiences confirmed that they wanted to continue in a different career (eg, physical therapy); however, this was not necessarily a result of a negative experience. This finding suggests that there are many ways that a clinical experience might affirm career choice and that the events within students’ clinical experiences are directly influencing decisions about their future professional paths. This finding is similar to Mazerolle et al⁶ in that clinical education can shape career decisions; however, for our cohort and unlike Mazerolle et al,⁶ the career-choice decision was not made based upon a negative experience but rather a matching of professional interests and personal goals.

Another important aspect of this theme was the importance of the fit or match of the experience regarding the setting and the preceptor. In the current study, the data suggest that athletic

training students can have positive experiences when either the setting or preceptor is a good fit/match. Two examples are Paul, who, despite a negative relationship with his preceptor, loved his experience due to the site and Amanda, who, once she got comfortable as a result of her relationship with her preceptors, enjoyed her experience. Experience fit/match is especially important as athletic training students commonly identify their preceptors as their mentors and because authentic mentoring relationships are more likely to occur when the athletic training student and mentor have a personal relationship.⁷ Athletic training students have identified preceptor characteristics such as accessibility and approachability as important in positive mentoring experiences, and they feel that mentors facilitate knowledge and skill development and support professional development.^{7,25} Athletic training programs should use this information to support their preceptors to increase the likelihood that the athletic training students will have a positive experience during any clinical experience and to facilitate mentoring relationships between the athletic training students and preceptors. However, it is important to note that for some students, being placed at a site that provides a quality learning experience despite their preceptor could also be valuable to consider when designing placements. Although the mentoring relationship might be most important in the athletic training students' professional development, the impact of a site they enjoy and learn from also appears to be important in the theme of a "good fit/match."

Learning about themselves personally and professionally was an outcome of positive clinical experiences for the athletic training students in this study. Athletic training students must complete competencies to ensure that they have the professional skills necessary to be competent in the field. Perhaps it is just as important to require that athletic training students reflect on their experiences as they pertain to their growth on a personal and professional level. Adding a reflective component to clinical experiences might facilitate athletic training students' ability to examine themselves personally and professionally while adding value to their experiences. The use of journal writing has been suggested as a great learning tool to help the athletic training student develop critical thinking skills because it encourages reflection and ownership of learning.²⁶ In addition, journaling can act as a bridge between clinical experiences and classroom learning as well as provide an opportunity for critical thinking, expressing feelings, and helping make sense of experiences during clinicals.²⁷

Reflection does not and should not only include journaling. In a study comparing clinical decision making of novice and experienced clinicians, researchers found that each engaged in similar but different types of reflection during the clinical decision-making process.²⁸ Relevant findings from this research include the importance of novices having time to reflect on clinical decision making, having the opportunity to discuss reflections with a mentor, and gaining insight into how seasoned clinicians use reflection. The authors suggest that the development of reflection and metacognition skills are essential in assisting the students in the transition from classroom knowledge to real-world application and subsequent growth as a practitioner in the field. Reflection can have a role in clinical experiences, not only as a tool for self-evaluation and self-discovery, but also in learning clinical decision making and providing students with the opportunity to develop skills that will be necessary as a practitioner in the

field. The findings of this study focus on the self-discovery aspect of reflection, but it brings up the larger concept using reflection in a purposeful way to help the athletic training student develop personally and professionally.

Data in this study also suggested that a positive clinical experience is influenced by the athletic training student; a finding that matches the information we know about today's college student (ie, the millennial who craves ownership in learning) and what we know about adult learners (ie, they can direct their own learning and are motivated by intrinsic rather than extrinsic factors).¹⁸ The athletic training students and preceptors in this study identified the role that the student has in creating a meaningful, engaging experience during their clinical experiences. Both discussed that if athletic training students are willing to learn and engage themselves in their experience, rather than just relying on their preceptors, they are going to have a more positive experience that will enhance their professional development. Motivated students are more likely to engage in, enjoy, and learn from their clinical experiences as well as persist to graduation, which is an important outcome for athletic training programs.¹³ However, the opposite can also be true. One preceptor discussed the challenge preceptors face when they are trying to provide a student with a quality experience but the student is not willing to engage and has a negative attitude about the experience. The fact that adult learners tend to be more intrinsically motivated and more ready for independent learning,²⁹ in conjunction with our findings, suggests that perhaps athletic training programs should explore ways to increase the intrinsic motivations of athletic training students in all of their clinical experiences as well as assist athletic training students and preceptors in developing plans/goals for the students' learning experiences.

Diversity in Experiences

The 2012 CAATE standards require athletic training programs to provide the athletic training student with opportunities to engage in patient care with different populations as well as in different allied health care settings.⁸ This is a standard that our findings support because they illustrate the positive affect clinical experience diversity can have on professional development. In a previous study examining readiness to enter the workforce, Mazerolle and Benes⁵ reported that the athletic training student values diversity in clinical experiences because it provided confidence in decision-making skills and readiness to manage any situation due to prior experience. Moreover, having multiple experiences in various settings and sports with different preceptors allows athletic training students to better understand which settings they are suited for and to experience different styles of practice that helps them visualize their own practice. These findings support other research in the field examining the importance of multiple experiences in the professional development of athletic training students and the importance of a variety of experiences in helping students develop a professional identity.^{3,16,24} Athletic training programs must develop experience systems that provide students with as many meaningful clinical experiences as possible during their time in the program.

Limitations

Despite reaching data saturation with the sample, this study involved a small sample representing only 4 schools in NATA

District 1. The sampling method was convenience sampling, which might have resulted in like-minded programs and participants in addition to the limited number. However, due to the qualitative nature of the design, the results are not intended to be generalized to a larger population. Further research should be done on additional populations. Additionally, most athletic training students had only two clinical experiences; it would be interesting for future studies to examine students with different numbers of clinical experiences. Findings from this study highlight the important role that clinical experiences have on the professional development of the athletic training student. Future studies should continue to examine this important component of athletic training programs.

CONCLUSIONS

Clinical experiences are a significant aspect of athletic training education. Both students and preceptors in this study believe that clinical experiences play an integral role in the professional development of athletic training students. Clinical experiences provide realistic experiences in which students gain an awareness of the profession, which can impact their decisions to remain in the field and provide an opportunity to practice skills and gain confidence in their future role as an athletic trainer. Clinical education experiences are also positive experiences overall, but this can be dependent on the fit/match of the experience and level of engagement for the athletic training student. Positive clinical experiences allow students to learn about themselves personally and professionally while affirming career choice. Finally, diversity of experiences is necessary to assist students in developing their professional identities.

The findings from this study bring to light several suggestions for athletic training programs. First, due to the significant impact clinical experiences can have on athletic training students' professional development when they have the opportunity to practice and apply skills, preceptors should be trained and/or supported in their role as a mentor. Being a quality athletic trainer does not necessarily mean that they have the ability to be a positive mentor who can support and develop students. It is important that athletic training programs choose their sites and their preceptors carefully and that they provide opportunities to help preceptors in their role as mentor. Additionally, athletic training programs should be thoughtful and purposeful in their placements of students. Our study suggests that programs having a positive relationship with a preceptor or a positive connection to a site can lead to positive experiences for students. Finally, the athletic training students play a significant role in their experience, and they can learn a lot about themselves in the process. Athletic training programs should evaluate methods to foster self-reflection and self-discovery during clinical experiences.

REFERENCES

- Mensch JM, Ennis CD. Pedagogic strategies perceived to enhance student learning in athletic training education. *J Athl Train*. 2002;37(suppl 4):S199–S207.
- Weidner TG, Henning JM. Being an effective clinical instructor. *Athl Ther Today*. 2002;7(5):6–11.
- Bowman TG, Dodge TM. Factors of persistence among graduates of athletic training education programs. *J Athl Train*. 2011;46(6):665–671.
- Mazerolle SM, Dodge TM. Role of clinical education experiences on athletic training students' development of professional commitment. *Athl Train Educ J*. In press.
- Mazerolle SM, Benes SS. Factors influencing senior athletic training students preparedness to enter the workforce. *Athl Train Educ J*. In press.
- Mazerolle SM, Gavin KE, Pitney WA, Casa DJ, Burton LJ. Undergraduate athletic training students' influences on career decisions after graduation. *J Athl Train*. 2012;47(6):679–693.
- Pitney WA, Ehlers GG. A grounded theory study of the mentoring process involved with undergraduate athletic training students. *J Athl Train*. 2004;39:344–351.
- Commission on Accreditation of Athletic Training Education. Standards for the Accreditation of Professional Athletic Training Programs. 2012. <http://caate.occutrain.net/wp-content/uploads/2014/01/2012-Professional-Standards.pdf>. Accessed January 29, 2014.
- Dodge TM, Mazerolle SM. Preceptors influence on athletic training students' development of excitement and commitment to the field of athletic training. *Athl Train Educ J*. In press.
- Berry DC, Miller MG, Berry LM. Effects of clinical field-experience setting on athletic training students' perceived percentage of time spent on active learning. *J Athl Train*. 2004;39(2):176–184.
- Miller MG, Berry DC. An assessment of athletic training students' clinical-placement hours. *J Athl Train*. 2002;37(suppl 4):S229–S235.
- Dodge TM, Mazerolle SM, Bowman TG. Variability in clinical integration achieved by athletic training students across different clinical sport assignments. *Athl Train Educ J*. In press.
- Dodge TM, Mitchell MF, Mensch JM. Student retention in athletic training education programs. *J Athl Train*. 2009;44(2):197–207.
- Young A, Klossner J, Docherty CL, Dodge TM, Mensch JM. Clinical integration and how it affects student retention in undergraduate athletic training programs. *J Athl Train*. 2013;48(1):68–78.
- Thomas D. A general inductive approach for analyzing qualitative data. *Am J Eval*. 2006;27:237–246.
- Benes SS, Mazerolle SM. Factors influencing athletic training student's perceptions of the athletic training profession. *Athl Train Educ J*. In press.
- Creswell JW. *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. Thousand Oaks, CA: Sage Publications; 1998.
- Monaco M, Martin M. The millennial student: a new generation of learners. *Athl Train Educ J*. 2007;2(2):42–46.
- Weidner TG, Henning JM. Importance and applicability of approved clinical instructor standards and criteria to certified athletic trainers in different clinical education settings. *J Athl Train*. 2005;40(4):326–332.
- Mensch J, Mitchell M. Choosing a career in athletic training: exploring the perceptions of potential recruits. *J Athl Train*. 2008;43(1):70–79.
- Bowman TG, Dodge TM. Frustrations among graduates of athletic training education programs. *J Athl Train*. 2013;48(1):79–86.

22. Mazerolle SM, Bowman TG, Benes SS. Defining the engaging learning experience from the perspective of the athletic training student. *Athl Train Educ J*. In press.
23. Mazerolle SM, Bowman TG, Benes SS. Reflective observation in the clinical education setting: a way to promote learning. *Athl Train Educ J*. In press.
24. Klossner J. The role of legitimization in the professional socialization of second-year undergraduate athletic training students. *J Athl Train*. 2008;43(4):379–385.
25. Laurent T, Weidner TG. Clinical instructors' and student athletic trainers' perceptions of helpful clinical instructor characteristics. *J Athl Train*. 2001;36(1):58–61.
26. Walker SE. Active learning strategies to promote critical thinking. *J Athl Train*. 2003;38(3):263–267.
27. Walker SE. Journal writing as a teaching technique to promote reflection. *J Athl Train*. 2006;41(2):216–221.
28. Wainright SF, Shepard KF, Harman LB, Stephens J. Novice and experienced physical therapist clinicians: a comparison of how reflection is used to inform the clinical decision-making process. *Phys Ther*. 2010;90(1):75–88.
29. Merriam SB. Andragogy and self-directed learning: pillars of adult learning theory. *New Directions Adult Continuing Educ*. 2001;89:3–14.