

# Program Directors' Perceptions of Programmatic Attributes Contributing to Athletic Training Student Persistence

Thomas G. Bowman, PhD, ATC\*; Thomas M. Dodge, PhD, ATC, CSCS†; Stephanie M. Mazerolle, PhD, ATC‡

\*Department of Athletic Training, Lynchburg College, VA; †Department of Exercise Science and Sport Studies, Springfield College, MA; ‡Department of Kinesiology, University of Connecticut, Storrs

**Context:** Graduates of athletic training programs (ATPs) have identified factors contributing to their persistence through professional education. However, program directors have yet to elaborate on programmatic attributes that might contribute to athletic training student retention in their respective ATPs.

**Objective:** To determine program directors' perceptions of ATP strengths and areas for improvement regarding athletic training student retention.

**Design:** Qualitative study.

**Setting:** Bachelor's ATPs.

**Patients or Other Participants:** Sixteen ATP directors with  $6.0 \pm 4.0$  years of experience in their current positions.

**Main Outcome Measure(s):** The participants completed audio recorded telephone interviews. We analyzed the data using principles of grounded theory and maintained trustworthiness using multiple-analyst triangulation, peer review, and member checks.

**Results:** We found 2 themes to describe the strengths of bachelor's ATPs. Our participants thought that they provided a student-centered approach and diverse clinical education experiences leading to a supportive and exciting environment to foster athletic training student learning. We categorized the student centered approach theme into 3 subthemes: program size, student engagement and program atmosphere, and academic and clinical cohesion.

**Conclusions:** Program directors should strive to provide athletic training students with individual attention to help them feel welcomed, valued, and important. A small program size or adequate personnel can foster interpersonal relations which can provide athletic training students with mentoring opportunities. Improving ATP cohesion can provide learning opportunities which assist students in making connections and promote the importance of the academic and clinical education components of the ATP. Engaging athletic training students early through a variety of clinical education experiences can assist professional socialization and foster excitement for the profession.

**Key Words:** Clinical education, mentoring, athletic training education

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*Dr Bowman is currently an Associate Professor in the Department of Athletic Training at Lynchburg College. Please address all correspondence to Thomas G. Bowman, PhD, ATC, Department of Athletic Training, Lynchburg College, 1501 Lakeside Drive, Lynchburg, VA 24501. bowman.t@lynchburg.edu.*

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**Full Citation:**

Bowman TG, Dodge TM, Mazerolle SM. Program directors' perceptions of programmatic attributes contributing to athletic training student persistence. *Athl Train Educ J*. 2015;10(2):122–129.

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## INTRODUCTION

Athletic training students prepare for professional practice by completing a professional athletic training program (ATP). Completion of an ATP involves both didactic and clinical education based on the standards set forth by the Commission on Accreditation of Athletic Training Education (CAATE).<sup>1</sup> The standards provide guidelines that must be followed in order to achieve and maintain accreditation; however, institutional autonomy is allowed for many of the more intricate details of the day-to-day operations of the ATP. Because of the institutional autonomy allowed by CAATE, there may be several distinct differences between ATPs, although the content taught remains relatively consistent. Those differences can include faculty expertise, institutional focus (research versus teaching), the number of faculty within the ATP, and ATP location, which can impact exposure to practice settings. For example, some ATPs may be located in research-intensive universities, which may offer more exposure to the research demands within athletic training, as compared to a more teaching-intensive university/college. Furthermore, the current educational standards<sup>1</sup> established by CAATE only require a minimum of 2 faculty members in athletic training; thus, some ATPs may meet the minimum standard while others exceed it.

The intricacies of each individual ATP can contribute greatly to student retention. Research has established that ATPs that offer a family-like atmosphere highlighted by effective communication and a positive learning environment have a strong potential for retaining students.<sup>2</sup> Other factors contributing to athletic training student retention are student motivation and proper integration into the ATP,<sup>3,4</sup> a long history of success, and time for socialization to occur before formal admittance into the ATP.<sup>5</sup> With a recent influx of research concerning student retention in ATPs, program directors have had the opportunity to become more educated on the topic than in previous years. Program directors are therefore at an advantage when assessing their own programs for strengths and weaknesses regarding retaining students. They also can benefit from gaining knowledge on other ATPs' successes and failures, as a means to deliver a better educational experience for their athletic training students not only to improve student learning but retention.

Didactic and clinical education experiences provide a foundation for athletic training students to gain an understanding of their role expectations. Through their academic preparation, they are able to gain the knowledge and skills expected of an entry-level practitioner, which also helps them visualize their futures as athletic trainers, a critical milestone in retaining them.<sup>2</sup> Engaging today's athletic training students can be done in a variety of ways, as they are described as millennials—students who expect to be active in their learning and value hands-on integration into their future roles.<sup>6</sup> Athletic training program directors and program faculty are

charged with reaching millennial students who are eager to be placed in learning opportunities that foster cohesion through team or group work that is supportive and allows for mentoring and success.<sup>6,7</sup> Applying what is understood regarding the learning needs of millennial students, it appears as though ATPs that can offer strong mentoring, supportive, family-like learning atmospheres and repeated exposures to the diversity of athletic training may help retain athletic training students.<sup>2,8</sup> Moreover, if ATPs are able to engage students earlier in their academic experiences, they can help them assimilate into their roles, allowing for a more realistic experience and the chance to gain feedback through their experiences academically and clinically.<sup>8</sup> The chance to become integrated is often viewed as necessary for role inductance, as well as retention as it allows athletic training students and athletic training professionals the opportunity to appreciate the roles and expectations of their selected field.<sup>4,8,9</sup>

Despite the increase in literature regarding athletic training student retention, approximately half of ATP directors believe retaining athletic training students is problematic.<sup>10</sup> Directors of ATPs have a unique vantage point as they are responsible for the day-to-day operations of the ATP and have dealt with multiple students. However, it is unknown what ATP directors believe are programmatic strengths and areas for improvement related to athletic training student retention. Therefore, the purpose of this study was to determine the strengths and areas for improvement for ATPs based on the perception of program directors.

## METHODS

We chose to use qualitative methods for the current study to allow for flexible data collection and adaptable responses by our participants. Limited information is available on this topic, and the adaptable nature of an interview would allow for a more informal, but structured discussion between the program director and researcher. We also wanted to capture depth, which may not occur using a survey instrument, as we intended to gain a holistic appreciation of the ATPs from the program director's point of view. Therefore, we felt audio-recorded telephone interviews allowed us to achieve our research objectives while permitting geographical diversity.

## Participants

We recruited 16 bachelor's ATP directors from across the United States to participate in the current study. Recruitment was completed at 16 due to data saturation (ie, no new themes were emerging from the data). Demographic information for the institutions represented by the participants can be seen in Table 1, and ATP demographic information can be seen in Table 2. The participants held their ATP director positions at their current institutions for  $6.0 \pm 4.0$  years and were  $44.0 \pm 8.0$  years old.

**Table 1. Frequencies for Institutional Information for the Participants**

Variable	Interview Participants No. (%)
Carnegie classification	
Research	4 (25)
Master's	6 (37.5)
Baccalaureate	6 (37.5)
Enrollment	
1000–3000	8 (50)
3000–5000	2 (12.5)
5000–10 000	3 (18.8)
10 000–20 000	3 (18.8)
Institutional type	
Public	4 (25)
Private non-religious	3 (18.8)
Private religious	9 (56.3)
Athletic affiliation	
NCAA Division I	4 (35)
NCAA Division II	5 (31.3)
NCAA Division III	7 (43.8)

Abbreviation: NCAA, National Collegiate Athletic Association.

### Data Collection Procedures

Following Institutional Review Board approval, we randomly selected participants from those who participated in a larger study<sup>5</sup> and stated they would be willing to complete a follow-up telephone interview. We sent those selected an email soliciting interest and scheduled a time for the telephone interview with the lead author after we received a signed informed consent form. We audio recorded the telephone interviews and had them transcribed verbatim prior to analysis. For this particular study, we focused on the responses to the questions asking participants to identify the strengths and areas for improvement of the ATPs they lead and how these attributes alter athletic training student retention decisions. We chose to use telephone interviews to allow us to gather data from ATP directors from a broad geographical area while allowing for prompting and follow-up questions to provide an adequate level of detail. The initial survey<sup>5</sup> provided the demographic information found in Tables 1 and 2.

### Data Analysis

We analyzed the transcriptions using principles from grounded theory.<sup>11</sup> First, we read the transcripts several times to become acquainted with the data. Next, open coding occurred by applying labels on a line-by-line basis to the data to depict the message of the data. Next, we condensed labels into categories by reducing redundancy during axial coding. Selective coding allowed us to validate the relationships between categories and provide dominant themes for presentation. The lead authors completed data analysis independently and later negotiated over the coding structure.

We maintained the trustworthiness of the data through 3 separate processes. First, the 3 primary authors independently analyzed the data. After data analysis, the 2 primary researchers discussed the data and the coding structure. We agreed on the overall themes that emerged from the data, but

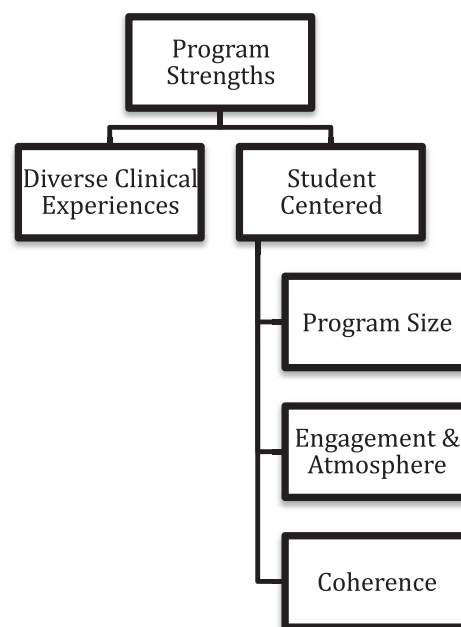
**Table 2. Descriptive Statistics for Athletic Training Program (ATP) Background Information**

Variable	Mean (SD)
Number of years accredited	11.75 (3.89)
Student applications to ATP	25.43 (27.75)
Student acceptances to ATP	21.69 (26.15)
Observation hours required before apply	50.31 (41.81)
Number enrolled in ATP	36.63 (27.70)
Academic years of clinical education	2.81 (0.5)
Clinical hours required for graduation	890.83 (314.37)
Retention rate (%)	78.13 (22.84)
Athletic training career placement rate (%)	72.31 (16.77)

negotiated over the terminology used to report the findings. We also had a peer review our work to ensure methodological rigor by examining the transcripts, validating the coding structure, and agreeing to the accuracy of the presentation of the study's final results. During the peer's review, we further altered the names of themes; however, the content contained within the themes remained consistent. Finally, we provided 4 participants with their transcripts and the presentation of the results. We asked the participants to review both documents for accuracy.

### RESULTS

We found 2 themes to describe the strengths of bachelor's ATPs with regards to retaining athletic training students. Our participants felt that they provided a *student-centered approach* and *diverse clinical education experiences* to promote student learning, which directly influenced persistence within their ATPs (Figure). The themes are defined and supported with participant quotes in the following sections. Although data saturation drove recruitment, we were unable to develop themes for the areas for improvement from the data. All participants provided areas for improvement, but the responses were quite varied and appeared institutionally and program

**Figure. Bachelor's athletic training program strengths.**



specific. Therefore, we believed that increasing the number of participants would not have resulted in saturation leading to themes. The data for this area of the research question was spread out over multiple differing content areas.

### Student-Centered Approach

The program directors we interviewed thought they embraced a student-centered approach to education due to the close-knit family style atmosphere and the relationships athletic training students get to build with others during their time in the ATP. An ATP director explained a student-centered approach in this way:

*We have an institution that is student centered, so that means that, no matter what the problem is, the students' issues get solved first and foremost. The faculty are encouraged to make sure the students are engaged in all classrooms. We try not to do lecture kind of format, although there is some of that, of course. But it's really helping the students be a part of the learning process instead of being the recipient.*

Many participants described the student-centered approach theme in 1 of 3 specific ways: *program size, student engagement and program atmosphere, and academic and clinical coherence.*

**Program Size.** Program size was described as important in developing a student-centered approach. Many discussed the importance of a smaller class size to promote learning and knowledge/skill development. One participant explained the advantages of small class sizes. He said:

*I think some of the strengths of our program which do help in terms of attrition is, it's small. I only have, at any given time, somewhere between 30 and 40 students in the 3 levels. So our classes are very small. All of our labs, our clinical classes are only 12 people, 13 people, which really helps to have a lot of hands-on, 1-on-1 attention to the students, which I think helps them. We can identify readily people who are having problems because of that.*

Several other participants also noted the perks of the environment they try to foster for athletic training students, which was done by keeping cohorts small. Having smaller class sizes allowed athletic training students to receive greater attention in the classroom and in the field. One program director explained:

*The strengths of our program are we're very, very close knit. There's a lot of 1-on-1 time. None of our clinical instructors has more than 4 students and so it becomes a very, very tight-knit group. Our class sizes are small.*

Another program director focused on clinical education and the importance of a smaller ATP. He said:

*I believe that the strengths of our program continue to be reflected in the personal attention that our students receive, which speaks to our institutional mission as well as our program mission. The enrollment at this point continues to remain steady, which speaks to that strength in terms of the personal attention, the monitoring. The low clinical enrollment, meaning that students get more hands-on time because we only allow so many students to participate in each of our sport activities, so there's more 1-on-1 time.*

Smaller class/program sizes attributed to greater attention given to athletic training students, as described earlier, which

allowed the ATPs to provide a more student-centered approach to learning and becoming socialized into the role of the athletic trainer.

**Student Engagement and Program Atmosphere.** Engaging the student in the day-to-day aspects of the profession was noted by several program directors as helpful in retaining athletic training students. The foundation to this high level of engagement was providing a strong clinical education experience, particularly one that starts early in the preparation of athletic training students. One program director described the importance of engaging, positive clinical education experiences. She explained:

*One of really the biggest items we get from our current students, alumni, and also during our interview process with incoming students is [that they like the] feedback [we provide]. And I'd say three-fourths of them commented on when they were doing their observation hours, they like the teamwork. It seems like a big family down there [in the clinic]. Everyone works well together and gets along. I think that's part of it, that it's a safe environment and a fun environment for the students, seems to help with retention and bringing students into the program. They like that atmosphere.*

Preceptor interactions and mentoring that occur during clinical education were also mentioned by several program directors as key to retention. One participant noted:

*I think it goes back to the relationship side of it. So for us, I think the strengths are the relationships between the preceptors and the students. We try to foster professionalism, but again, we know that—that they're gonna be spending a lot of time with us and a lot of time with each other, so we just try to foster relationships in that.*

More commonly, program directors cited both preceptors and faculty as important factors in the ATPs they lead due to their ability to forge relationships with the athletic training students. One participant explained how both are important and lead to the attention athletic training students require. She said:

*I think our students love our classes. I think we're very lucky that our faculty are very great persons. They love the students. We interact well. I think a lot like the fact that we have several faculty members who are clinical faculty [and have release time for clinical service], and we have a nice mix between clinical faculty and tenured faculty. Then the clinical faculty are allowed to spend more time with the students and have more interaction with the students on a daily basis. So the whole process is made a little more interactive and fun in the classroom.*

Engaging students through mentoring was discussed by many of our participants. Preceptors, as described previously, as well as program faculty were important in retaining athletic training students. One program director explained that the interactions athletic training students build with faculty aid in retention. He believed that being at a smaller teaching-intensive institution was an advantage. First, he mentioned the commitment and passion the faculty have to the profession as an important retention factor. He said:

*I think because we see the students so often and they see how committed the faculty are to teaching and the profession that*

*we've had students comment that on evaluations before that they really appreciate it, the passion that the faculty have.*

He went on to explain that the faculty are also able to get to know students on a personal level, which he thought helped foster retention:

*So just that engagement with the faculty seems to be a step in [athletic training student] retention. Again, that's our typical student modeling that [institution's name's] students want to be known by their faculty and want to have a relationship with their faculty. We don't get a lot of students who would rather their faculty didn't have a personal interest in them. I think that's a strength.*

Another program director agreed, referring to the fact that the faculty are available. She explained:

*They talk a lot when they're leaving and few years after they've graduated about the friends who they made and just kind of the fun times and social. . . Faculty interactions, faculty are available, and work hard to keep our student-faculty interactions very high, because we've seen and our university has told us that's what the students want and that's what they rate is what keeps them here and they enjoy. . . I think there's a few students who have stayed because of the supportive family atmosphere in the major.*

**Academic and Clinical Coherence.** Several of our participants noted the fact that retaining students is facilitated by coordination between the didactic and clinical education experiences for the athletic training students. An example of how coherence between the classroom and clinical experiences can help athletic training students is defined by 1 program director. She illustrated the fact that, although faculty are not always involved in athletic training service, they can still be involved in the clinical education experiences of the athletic training students. Specifically, the faculty remain integrated into the operations of the athletic training clinic on campus improving student-faculty interactions. She said:

*I think the [main] strength of our program is that we're very personable. We [faculty] don't have sport assignments, but we're both in the athletic training clinic, working with students, working with their skill proficiencies. So I usually tell a lot of the prospective students when they come in 1 of our downfalls is the fact that we don't have football, so we don't have just that massive chaos that goes on with football, but what they will get is they're gonna see me a lot, and I'm gonna ask them a lot of questions in and out of class and in the athletic training clinic when they're doing clinicals. So we have a lot of faculty intervention. We have a lot of—obviously, the students have a lot of contact with their preceptors.*

Another participant stated that having faculty involvement in the clinical experiences of students can help bridge the gap that can sometimes exist between didactic and clinical education. She responded:

*That can be a killer to the student, so to speak. I think didactically, it's really important if you have faculty who have—at least 1 or 2 that have a foot in both sides, where they are involved academically, as well as clinically. That helps the classroom seem so much more relevant.*

A final participant explained a different way to support students' clinical education experiences. He mentioned pro-

viding students with a solid knowledge level to allow for clinical integration. He explained stating:

*The instructor is, I think, key. It's pivotal. I think if students have a great experience in the classroom and really feel like they are getting excellent instruction and excellent opportunities to practice, when they go into the clinical setting, they're gonna be so much more confident and competent.*

He further explained how a disconnect can be a challenge for athletic training students to overcome, as the first 2 participant quotes implied. He said:

*The other side of it is, if you have—which a lot of places do—preceptors who don't teach in the classroom, there is a disconnect sometimes between what is expected academically—the level of detail—and then clinically, the students learn the practicality, so they struggle with—didactically, they're being taught this volume—this large volume of information, and if they get a preceptor who says, "Well, that's nice, but this is what you're actually gonna do." sometimes, that can be detrimental.*

When students' learning in either the classroom or the clinical setting is undermined by the other, students struggle to grasp concepts and make sense out of their learning experiences.

### Diverse Clinical Education Experiences

Our participants also identified offering athletic training students a variety of experiences during clinical education as a major strength of the bachelor's ATPs they lead. Several participants noted the fact that athletic training students in the ATP they lead go to several different sites for clinical education. At times, as the following quote describes, experiences took place in quite unique locations. One program director explained how athletic training students can gain experience in emerging practice settings:

*I think we have really good clinical experiences. We have Division I athletics. We have 6 high schools that we use off campus and 2 really good physical therapy rotations that we use and so I think the exposure that we can give to our students. Aside from some just independent things that we do with them, we've got a NASA [National Aeronautics and Space Administration] connection, we've had performing art connections, so these are people we can bring in or send our students in for even a day or evening experience. We also have a fulltime team physician on campus who serves as our medical director. So he teaches 1 of our classes. He does our general medical rotations, he's the medical director for our program, and our students have pretty much a daily interaction with him if they want it or need it, and I think that's a huge bonus for our program.*

Another participant had a similar response focusing on clinics and the performing arts. She described the importance of utilizing a variety of clinical education sites by responding:

*They [athletic training students] have these really good high schools that we can use now, or I don't have to go back to football because you know I have all these other places that I can go. So I think having the variety of clinical education sites, we have the ability to just say, "Hey, if you're really interested in the clinical setting or you're really wanting to maybe go to PT [physical therapy] school, we can get you that interaction, or if you're really interested in performing arts, we can get you that interaction."*



We garnered a comparable view from a director who thought athletic training students need a variety of experiences to help them choose a career setting. He stated:

*Our clinical instructors, they're an integral part of our first year experience because we send our kids off campus quite a bit as sophomores just to give them a wide variety of experiences. I think that really helps retention because they get into different venues and realize, "Geez, I didn't know athletic trainers could work in this venue, or I didn't know athletic trainers could do that." I think that helps them a lot in terms of broadening their perspective and maybe their outlook about what I really want to do. I think that excites them.*

Continuing with the diversity of clinical education theme, 1 participant believed that providing a variety of experiences facilitated athletic training student retention because of the ability to place students based on their interests while also giving them a wide variety. Athletic training students enjoyed the clinical education experiences at the ATP because:

*I think our students, I think they love working with Division I athletics. I think all of our students have to do a hospital rotation downtown with our team physician. So I think, no matter what their future goal is, they know they're going to get a variety in the clinical education experience. So they love the Division I aspect. They love being able to work with the team physician. They love being able to go to some of our local high schools that we have. I think the clinical aspect is a big draw, and because we have a clinical setting pretty much for everyone, and everyone gets to experience a big variety, they like it a whole lot.*

Similarly, a colleague agreed. She replied that a strength of the ATP she leads had to do with a variety of clinical experiences:

*We don't do the traditional fall and spring rotations. We actually have fall, winter, and spring rotations. So when they're done, they've had 9 different rotations. One of those will be at a physical therapy clinic, and then they do have an option of even chiropractic and physician extender rotation if wanted. I think that gives them a pretty good overall clinical experience, kind of a smorgasbord.*

Other participants noted diversity in a different light. One director who leads an ATP in a very large metropolitan area described how the institution's location and diverse student body aided in preparing athletic training students for professional practice. She said:

*We have so much available to the students from other college situations, orthopaedic internships, and I have 35 high schools that the kids can do high school rotations in, and so experience, that helps. I think the other is it's very diverse. Our school has athletes from all over the world, and so they come into a diverse situation. So from even a clinical competency in terms of diversion and diversity, where they just learn to deal with other populations very quickly, and I think that helps them. I think those are some of our strengths.*

Another ATP director explained how she thought exposing athletic training students to different health care professionals was important as far as developing interdisciplinary collegiality. She explained the variety of health care professionals the athletic training students in the ATP she leads get to interact with by stating:

*So we thought it would be a good idea. . . for the students to not just be exposed to athletic trainers all the time, and that*

*kind of carries on when the students do their clinical rotations here at our health care center. We have a nurse practitioner and a physician assistant. By having the physician assistant here, it kind of exposes those kids to a different allied health profession that they might not have been exposed to before, and they see Dr. [last name], our orthopaedic surgeon. They're able to go in and see surgeries and not just 1 or 2. It kind of depends on what their schedule is, but most of the kids see 8–10 surgeries during that clinical rotation, so they get all excited about that; and then at the rehab center, they do some things that we might touch on here in class a little bit, but usually they come back from the rehab center quite excited. The people there do a lot of muscle energy stuff, kinesio taping and stuff that maybe we've talked about but stuff that maybe they haven't seen. So I think doing the clinical rotations and seeing those different things—yeah, this is what I want to go into and that type of thing.*

## DISCUSSION

We were able to identify 2 main themes for the strengths associated with ATPs leading to athletic training student persistence, providing a student-centered approach and diverse clinical education experiences to promote student learning. Our findings suggest that program directors recognize the importance of engaging the student in learning by directly providing real-life experiences that are differentiated yet allow for self-direction, fundamental components for engaging the millennial learner.<sup>7</sup> Unfortunately, we were not able to identify themes for challenges associated with programmatic attributes considered by ATP directors as detrimental to student persistence. However, we believe the lack of themes for areas of improvement may illustrate the fact that program directors are more concerned with retaining athletic training students than ever before. Perhaps program directors are aware of the factors leading to departure due to the available literature on athletic training student retention and understand the challenges of retaining athletic training students from their own institutional and programmatic lens. Although we were not able to identify themes, all participants did list things they believed could be improved about the ATP they lead. Therefore, we believe ATPs can improve, but in ways that are specific to each ATP and institution for a variety of reasons. We also recognize more in-depth research is warranted in this area. Despite the lack of cohesion regarding areas for improvement, we do believe program autonomy is helpful in navigating institutional restraints and requirements.

Our findings related to strengths of ATPs which lead to persistence are not surprising and highlight that today's students require an active role in their education, the chance to engage in their future roles through mentorship and patient interactions as well as feel supported and integrated into their educational experiences. Moreover, we believe our results indicate that ATPs as led by their program directors are aware of key initiatives that can help reach the millennial learner, which in turn appear to foster retention in their ATPs. We discuss the key findings in the following sections.

### Student-Centered Approach

Our participants believed they were able to foster a support network for students through a small program size, multiple opportunities for student engagement and mentoring, and

academic and clinical harmony. We believe the first 2 findings relate well to each other as program size and/or adequate faculty-to-student and preceptor-to-student ratios can facilitate personal relationships that lead to engagement and guidance. A small program feel and close-knit, family-style community have been previously identified as persistence factors for recent graduates of ATPs.<sup>2</sup> Program directors note that the personal relationships athletic training students build with peers, preceptors, faculty, and staff facilitate retention.<sup>12</sup> Other literature<sup>6</sup> has found that program size alters retention rates of athletic training students as program directors of athletic training programs that have less students enrolled reported higher retention rates. Perhaps 1 reason these relationships facilitate persistence is by providing a support network for students to help them mitigate frustrations that occur while completing an ATP.<sup>2,3,13,14</sup> Program directors appear to agree that providing athletic training students with individual attention and 1-on-1 mentoring is important to making students feel welcome and valued. Providing an atmosphere which feels small due to the individualized experience may be more important than simply the program size.<sup>5</sup>

In addition to program size, our participants felt that getting students involved in athletic training early facilitated persistence. Many program directors mentioned that they require some sort of observation before the professional phase of the ATP. We believe the observation period is noteworthy for professional socialization and because it allows prospective students to interact with various preceptors. Building relationships with preceptors is particularly important as they are viewed as mentors<sup>15</sup> by athletic training students. Preceptors also facilitate professional socialization by acting as role models, allowing prospective students to envision what a career in athletic training will entail. Mentorship has been identified as crucial in professional development, but also as a key learning tool for today's learner.<sup>6,7</sup> The mentor serves as a role model, who is able to demonstrate appropriate behaviors and values, but also is able to provide support during structured learning, feedback for skill improvement, and a benchmark for achievement for athletic training students for the future.

Academic and clinical harmony was facilitated by common threads being woven through the classroom and clinical education experiences. A link between didactic and clinical experiences can be fostered through effective communication between faculty, staff, and preceptors on such topics as learning expectations, materials covered in each setting, and an explanation of students' background to foster graded autonomy. When clear connections can be made between the classroom and clinical education experiences, an environment in which improving student understanding of key concepts can occur due to program coherence.<sup>13</sup> Further, the clinical education experiences should allow for the implementation of the skills students are learning in the didactic portion of the ATP facilitating appropriate progression to autonomous decision making during clinical education.<sup>13</sup> For example, program administrators may pair students taking a lower extremity examination class with a lower-extremity-focused clinical education experience.

An additional way to create synergy between the classroom portion of the ATP and the clinical education experiences

explained by our participants was through faculty involvement in the clinical education experiences of athletic training students. Previous literature<sup>13</sup> has suggested that having dual-role athletic trainers who teach classes and provide athletic training services may help facilitate communication between the faculty and clinical staff. Our participants agreed and thought that having faculty involved in the clinical education experiences of athletic training students and clinical staff involved in the didactic portion of the ATP allowed better translation of didactic information to the clinic by helping students comprehend the relevancy of the information learned in the classroom. Although it did not come up in our data, we also agree that clinical staff should be involved in the meetings and curricular decisions of the ATP.<sup>13</sup> Additional examples of how to foster program coherence are a faculty and preceptor journal club, continuing education seminars, and inviting faculty to athletic training staff meetings.

### Diverse Clinical Education Experiences

The program directors we spoke to stated that they thought providing athletic training students with diverse clinical education experiences helped the persistence rates of athletic training students in their ATPs. Clinical education is often viewed as the critical aspect of athletic training students' educational experiences, as they value the chance to be involved in their future role and spent most of their time learning in this setting.<sup>16,17</sup> Likely, the diversity of clinical education experiences allowed athletic training students to feel clinically integrated, as they were able to interact with those members who could provide legitimizing feedback,<sup>18</sup> but also could have experiences that offered exposures to different aspects of athletic training (ie, administrative roles, varying patient types, etc). We know that senior athletic training students agree that a diversity of experiences allows them to feel prepared to handle professional responsibilities once they enter a career in athletic training.<sup>19</sup> Previous literature<sup>20,21</sup> suggests that some clinical education experiences offer more practical application of skills in comparison to others, thus having the chance to be in each learning environment can aid in learning and exposure to the variety of roles in the profession. Diversity also can improve athletic training students' confidence in their skill sets, which in turn can improve retention. As Mazerolle and Benes<sup>19</sup> found, those athletic training students who were afforded a variety of experiences were confident to enter the workforce, because they had seen real-life situations and felt prepared to manage them independently.

In addition, our finding is similar to previous literature<sup>8</sup> which suggested providing athletic training students with diverse observation opportunities to allow prospective students a broader understanding of the role of the athletic trainer in the administration of health care. We also had 1 participant who explained that gaining experience with a diverse patient population was important. We believe gaining experience with a diverse patient population will allow for the implementation of the cultural competencies<sup>22</sup> and better prepare athletic training students for professional practice. It also likely allowed them to identify with a particular role or set of responsibilities that matched their strengths and interests, which allowed them to gain a stronger connection to their future role, facilitating their commitment and retaining them in their ATPs.

## Limitations

Although we spoke to a variety of program directors, 1 common limitation to qualitative research is limited generalizability. Our results may not translate well to all ATPs as many institutions and ATPs may have specific attributes that facilitate athletic training student persistence. Further, no themes emerged explaining challenges to athletic training student persistence. Perhaps collecting data from a wider variety of program directors would have led us to find themes related to ATP areas for improvement. Program and institutional constraints may also influence curricula development and implementation; thus, future studies should examine programs of comparison (private versus public, etc) as means to make better practical recommendations that better match the needs of ATPs.

## CONCLUSIONS

The program directors we spoke to thought they promoted persistence among the athletic training students in the ATPs they lead by providing a student-centered approach and diverse clinical education experiences. Three additional subthemes permeated a student-centered approach: program size, student engagement and mentoring, and academic and clinical harmony. Generally speaking, these overarching themes speak to the concept of the millennial student and their needs for learning, socialization, and future success. Program directors should strive to provide athletic training students with individual attention to help them feel welcomed, valued, and important because millennial students thrive when allowed to be social and collaborate with peers.<sup>7</sup> A small program size can foster interpersonal relations, which can provide athletic training students with mentoring opportunities, another critical tool to reach millennial students' learning and professional development needs. Improving ATP cohesion can provide learning opportunities which assist students in making connections and promote the importance of the academic and clinical education components of the ATP. Engaging athletic training students early through a variety of clinical education experiences can assist professional socialization and foster excitement for the profession.

## Acknowledgments

We thank Lynchburg College for providing funding for this study through a summer research grant.

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