ATHLETIC TRAINING EDUCATION JOURNAL

www.natajournals.org
ISSN: 1947-380X
DOI: 10.4085/100139

ORIGINAL RESEARCH

Description of Professional Master's Athletic Training Programs

Thomas G. Bowman, PhD, ATC*; William A. Pitney, EdD, ATC, FNATA†; Stephanie M. Mazerolle, PhD, ATC‡; Thomas M. Dodge, PhD, ATC, CSCS§
*Department of Athletic Training, Lynchburg College, VA; †College of Education, Northern Illinois University, DeKalb; ‡Department of Kinesiology, University of Connecticut, Storrs; §Exercise Science and Sport Studies, Springfield College, MA

Context: Professional master's (PM) athletic training programs (ATPs) are becoming more popular as the profession debates what the entry-level degree should be for athletic training. More information is needed related to the potential benefits of PM ATPs.

Objective: Describe the Commission on Accreditation of Athletic Training Education (CAATE) accredited PM ATPs including athletic training student retention rates and career placement rates as well as strengths and areas for improvement.

Design: Mixed-method study.

Setting: Professional master's ATPs.

Patients or Other Participants: We surveyed directors of all accredited PM ATPs and obtained responses from 15 out of the 25 directors (60.0%).

Main Outcome Measure(s): We sent a link to an electronic survey to all directors. The survey asked background questions about the ATP, the institution, and the director. Using data saturation as a guide, we also performed follow-up telephone interviews with 8 directors to expand upon the data gathered in the survey, specifically related to aspects of their PM ATPs. We analyzed the data using grounded theory and maintained trustworthiness through multiple analyst triangulation, member checks, and a peer review.

Results: Our findings indicate an 88.7% retention rate and an 88.5% career placement rate for PM athletic training students. The directors responded very positively about their ATPs, particularly didactic education. The participants also felt they provide a *positive environment* which fosters student learning, excellent *clinical education opportunities*, and *unique experiences* beyond those typically offered at the undergraduate level. Many directors also noted they wanted to make *personnel modifications* to strengthen their ATPs.

Conclusions: We were able to provide descriptive information on PM ATPs. The participants described the didactic and clinical education experiences, social experiences, and overall ATP atmosphere as overwhelmingly positive. The small class sizes and involvement from faculty, staff, and preceptors helped create an environment, which fosters athletic training student learning.

Key Words: Graduate education, retention, persistence

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

Full Citation:
Bowman TG, Pitney WA, Mazerolle SM, Dodge TM. Description of professional master's athletic training programs. *Athl Train Educ J*. 2015;10(1):39–46.

Note: The term "undergraduate" has changed to "professional bachelor's." Original terminology preserved throughout to reflect time of study.

Description of Professional Master's Athletic Training Programs

Thomas G. Bowman, PhD, ATC; William A. Pitney, EdD, ATC, FNATA; Stephanie M. Mazerolle, PhD, ATC; Thomas M. Dodge, PhD, ATC, CSCS

INTRODUCTION

Athletic training programs (ATPs) have been studied extensively since the move from internship and accreditation to accreditation only in 2004. To date, the majority of ATP research has focused on undergraduate ATPs[1,2] as they compose the majority of the accredited ATP population.[3] However, over the past several years, the number of professional master's (PM) ATPs has risen dramatically to 26 as of the fall 2013 semester[3] and have increased by 400% over the past 10 years.[4] Professional master's ATPs allow students with undergraduate degrees to pursue athletic training by completing the requirements to sit for the Board of Certification, Inc (BOC) exam while earning a master's degree. The structure of a master's degree program may offer a different experience for students and result in positive outcomes. For example, Ostrowski[4] found that 93.5% of PM ATP graduates planned to stay in the profession and seek employment, and the BOC pass rates of these students was above the national average. These findings are compelling and have provided initial insights to outcomes and student characteristics.

Previous authors have also identified the strengths and weaknesses to the PM model.[5] Focused professional preparation, selectivity, and an improved alignment with peer health care professional programs have been identified as aspects that are advantageous over and above an undergraduate professional degree.[5] Drawbacks to a move to the professional degree at the graduate level have been determined to be a lack of qualified faculty, financial concerns for students, and the unintended consequence of reducing the number of ATPs.[5] Unfortunately, these studies[5,6] appear anecdotal in nature and are not based on empirical data from the PM population. Empirical data regarding current PM programs can help the profession make an informed decision regarding the future of educational preparation for the athletic trainer, as it is viewed as an important next step in the advancement of the profession. Furthermore, understanding the PM model from a perspective of programmatic and curricular design can help facilitate the development of future PM programs that better address the needs of the student and profession.

As the discussion over moving athletic training preparation to the postbaccalaureate level has heightened,[5] it has become crucial to understand PM ATPs at a deeper level. In particular, it is unknown what the difference is between gaining professional preparation at the undergraduate level versus the PM route[6] because the Commission on Accreditation of Athletic Training Education (CAATE) accreditation standards are the same for professional education regardless of whether the program is at the undergraduate or master's level.[7] Therefore, our purpose was to extend the current information available to athletic training educators and describe accredited PM ATPs including athletic training student retention rates, career placement rates for graduates, as well as strengths and areas for improvement in order to gain a holistic understanding using demographic characteristics. Our hope is that exploring these aspects of the PM population will provide further information about PM ATPs.

METHODS

We chose to use a sequential mixed method design to learn more about PM ATPs. Our two-part data collection process first utilized the Athletic Training Student Retention Survey for Program Directors[8] followed by telephone interviews with randomly selected participants. The retention survey asked the participants to answer several demographic questions regarding the institution, ATP, and themselves; a section of Likert scale questions related to the ATP; as well as open-ended questions allowing the respondents to formulate their own answers. The quantitative portion of the study allowed us to gather information based on several key demographic factors while the qualitative data allowed us to gather rich descriptions of the ATPs. For the current study, we were particularly interested in the retention and career placement rates of PM ATP graduates, whether ATP directors viewed retention as a problem facing athletic training education, and what the participants felt were the strengths and areas for improvement for the ATPs they lead.

Participants

We sent the online survey to every director of a PM ATP as of January 2011 ($N = 25$) asking for participation. We chose to seek data from ATP directors as they are responsible for the day-to-day operations of the ATP accreditation.[7] We received responses from 15 (60%) program directors. The average age of the directors who responded was 44 ± 7 years old, and the directors held their current position for 8 ± 6 years. Using data saturation as a recruitment guide, we randomly selected 8 to participate in follow-up telephone interviews from those who responded to the online survey. We settled on recruiting 8 as we felt including additional participants in the phone interview portion would not identify additional themes.

Data Collection Procedures

The institutional review board (IRB) of the host institution approved the study before we initiated data collection. We obtained e-mail addresses for our population from the CAATE Web site.[3] QuestionPro online data management (QuestionPro Inc, Seattle, WA) facilitated data collection which followed methods described previously.[9] The first page of the Athletic Training Student Retention Survey for Program Directors contained an IRB approved consent form. Initially, we sent the population a personalized e-mail explaining the purpose of the study and asked for their participation. One week later, we sent another personalized e-mail with a link to the online survey followed by a reminder e-mail 2 weeks later. After an additional week had passed, we sent a third and final reminder e-mail. Finally, we made 1 attempt to call the remaining ATP directors who had not yet participated 7 days after the last electronic request. We

Table 1. Program Demographic Information (N = 15)

Variable	N	Percentage of Respondents
Carnegie classification		
Research	7	46.7
Master's	6	40.0
Baccalaureate	1	6.7
Special focus	1	6.7
Institutional type		
Public	10	66.7
Private	5	33.3
Athletic affiliation		
NCAA Division I	10	66.7
NCAA Division II	4	26.7
NCAA Division III	1	6.7
Enrollment		
Up to 1000	1	6.7
1000–3000	3	20.0
3000–5000	2	13.3
5000–10 000	4	26.7
20 000–30 000	4	26.7
30 000 or greater	1	6.7

Abbreviation: NCAA, National Collegiate Athletic Association.

terminated data collection 1 week after the telephone calls because no new responses had been obtained for 2 consecutive days.

At the conclusion of data collection for the survey, we randomly selected 8 PM ATP directors to participate in telephone interviews. After receiving a signed IRB approved informed consent form, we scheduled an interview date and time. We audio recorded the interviews, which lasted between 30 and 45 minutes. During data collection, we reviewed responses continuously and ceased recruitment when data saturation was achieved and no new themes were emerging from the data. We had the interviews transcribed verbatim prior to data analysis. We chose to use telephone interviews to gather additional data because of the ability to provide robust data by allowing us to prompt the participants to obtain an appropriate level of detail. The sequential design of the study was beneficial as our phone interviews allowed us to gain a richer understanding of retention and helped provide support and insights to our quantitative data.

Data Analysis

We utilized IBM's SPSS (version 19, IBM Inc, Somers, NY) to calculate descriptive statistics and frequencies for the Likert scale data by assigning numerical values to the response choices (eg, strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, strongly agree = 5). We reverse coded 2 questions that were negatively worded.

We used grounded theory[10] to analyze the qualitative data. For this particular study, we focused the qualitative analysis on the description the participants provided when asked what the strengths are of the ATP they lead. The process involved reading the transcripts several times to gain a sense of the data followed by attaching labels to the data during open coding. Next, the redundancy among the labels was reduced during axial coding by combining similarities. We developed final themes by collapsing labels into the most dominant findings during selective coding.

We maintained the trustworthiness[11] of the qualitative data through 3 separate processes. First, we utilized multiple analyst triangulation. This process involved independent data analysis by the 2 primary authors (T.G.B., W.A.P.) followed by negotiation over the coding scheme and final theme names until we reached total agreement. We agreed on the content of the themes, but did discuss the terminology used to describe the themes until we reached full agreement on what names would best describe the content of the themes. We also had 3 participants complete member checks by reviewing their transcripts and validating their accuracy. These participants also reviewed the final presentation of the results and verified the credibility of the findings. Finally, we had an athletic training educator and scholar who is an experienced qualitative researcher review the transcripts, our coding structure, and the final themes. The expert validated our work and the presentation of the results.

RESULTS

Quantitative Results

A total of 15 program directors completed the survey for a 60% response rate. Demographic information for the institutions represented can be found in Table 1. Fourteen of the institutions (93.3%) indicated having formal admittance to the ATP before initiating college coursework at the host institution, as well as a minimum grade point average for admission. Additional ATP background information can be found in Table 2. Our participants reported an average ATP size of 28.1 ± 18.4 athletic training students, an athletic training student retention rate of 88.7% ± 9.0%, and a career placement rate of 88.5% ± 10.7%. Sixty percent of the participants (9 out of 15) reported that retention of athletic training students is not a problem facing athletic training education while 40% (6 out of 15) thought it is problematic at the PM level. Responses to the Likert scale questions can be found in Table 3. The participants responded overwhelmingly positive to all Likert scale questions related to the program environment.

Qualitative Results

Three themes emerged identifying the strengths of the PM ATPs represented by our participants and 1 theme related to potential improvements the participants would like to make to their ATPs. Our participants believed that they provide a *positive atmosphere* for students, *clinical education opportunities* that benefit student development and learning, and *unique experiences* beyond those typically offered at the undergraduate level. In addition, the PM ATP directors would like to make *personnel modifications* to improve the educational experience for their students. The themes are defined and supported with participant quotes in the following sections.

Program Atmosphere. First, the majority of our participants noted the fact that they try to provide an atmosphere that fosters student success. Typically, the ATP directors explained that they try to provide individual attention to students as a way to develop relationships. One participant

Table 2. Descriptive Statistics for the Program

Variable	Mean ± SD	Median	Range
Number of years accredited	4.5 ± 3.9	5	0–15
Student applications to the program	44.1 ± 31.6	26	15–120
Student acceptances to the program	18.9 ± 14.3	15	6–65
Observation hours required before apply	63.5 ± 88.5	27.5	0–300
Number enrolled in the program	28.1 ± 18.4	24	3–75
Academic years of clinical education	2.1 ± 0.3	2	2–3
Clinical hours required for graduation	780.8 ± 445.1	900	0–1400
Retention rate (%)	88.7 ± 9.0	90	70–100
Athletic training career placement rate	88.5 ± 10.7	90	58–100

summarized this concept by describing the atmosphere the stakeholders in the program she leads try to foster for the athletic training students. She explained by stating,

> *I think the biggest strength [is] we're small enough that it's a very tight-knit, comfortable group. I've always described our program as being tough but fair and providing a family like environment. So we're really comfortable with our students, and I think they're very comfortable with not only the faculty, but the staff supervisors [preceptors] who they work with.*

A similar sentiment was echoed by another PM ATP director. He explained that the individual attention the athletic training students in his program receive helps retain them.

> *Knowing that someone cares and is willing to help you reach your potential, I think, is always important. Knowing that even though there's a set standard, that there are multiple ways to reach the standard, and that we're willing, as faculty and staff, to use our experiences to help them see a better way that may help them find that success. I think all of that comes from that close relationship and that trust that we try to build.*

Other participants used more specific examples of how the sense of closeness is established with athletic training students. First, 1 participant explained how faculty and preceptors both create an environment that breeds student success. She said,

> *Having that personal contact, they know somebody. . . it's that interaction that they're going to have with faculty who keep them here. It all boils down to the research that says it's the contact with faculty and having that personal connection. And I believe our students get that personal connection with both faculty and their preceptors.*

A different participant really stressed how individual attention during clinical education can improve athletic training student excitement for the profession while explaining the ATP's strengths. She stated,

> *I think, again, that comes back to the low ratios. Because if you have two students in a rotation they get a lot more one-on-one [interaction] with a preceptor, but they also get a lot more opportunities to do things when patients are around. I think that's really important. Even when they're lower level students, I feel like when there's too many people there, a beginner student will just sit in the corner quietly and doesn't want to get in the way. As opposed to if there's only two students in a rotation, even if they're new, they'll get in there, and they'll watch closely, and they'll ask questions and maybe they'll even try.*

Finally, 1 participant mentioned the relationships the athletic training students develop with their peers as being an important factor in persistence. He stated,

> *When they get here they know no one, so they have to sort of bond a little bit. I've always been amazed at the collegiality of the students from the very beginning and how they work together. I think when you have a sense of family that helps with wanting to stay and complete the program and be successful.*

Table 3. Likert Scale Data[a]

		Interquartile Range	
Program Environment	Median	25%	75%
The majority of students in my ATP are dedicated to finishing the athletic training program.	5	5	5
The majority of students in my ATP are confident that their initial decision to enroll in an ATP was the right choice.	5	4	5
I am concerned about the retention rate of my ATP's students.[b]	4	2	5
The administration at my institution is concerned about the retention rate of my ATP's students.[b]	4	3	5
My ATP is given appropriate financial resources to successfully graduate students.	4	4	5
My ATP is given appropriate personnel resources to successfully graduate students.	4	4	4

Abbreviation: ATP, athletic training program.

[a] Response options were 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree.

[b] Responses reverse coded.

According to our participants, a strength of PM ATPs is the closeness and comfortable atmosphere they are able to foster due to the relationships built between athletic training students, preceptors, and faculty; a strength facilitating retention for the PM ATP.

Clinical Education. Our participants mentioned the clinical education experiences they provide for athletic training students as a strength. One participant explained that the preceptors involved in the ATP she leads make the experiences meaningful for athletic training students. She explained how they positively influence her athletic training students by being appropriate professional mentors. She stated,

> *I would say the other strengths of our program are our clinicals. Our clinical sites and our clinical faculty are excellent. So we've been able to cultivate relationships with athletic trainers in the community who are excellent role models and who are really interested in teaching students and being educators.*

We noted a similar response from an ATP director who explained that the preceptors who mentor the athletic training students in his program understand the purpose of clinical education. He described how clinical education experiences are a strength by stating,

> *Another strength is that everyone involved in our program, whether it's faculty, on-campus staff or community preceptors, they have bought into the education piece. They [preceptors]—a lot of them are actually former students of ours, but they understand what we're trying to do here, and they've bought into being part of the education, not just having somebody around to help carry coolers and those kinds of things.*

The clinical education experiences are often described as the students' favorite part of the curriculum. The following excerpt helps to explain why clinical education helps students integrate proficiencies and knowledge together to form more of a holistic approach to patient care. The ATP director replied,

> *They usually enjoy the clinical positions [of the ATP] better or the clinical courses better because it is so hands on. They get to connect with other people, not instructors, but supervisors, our preceptors. They really get to branch out. It helps to reinforce what they've learned in the classroom, but also show how very few things in athletic training fit the black and white of the book. I think it just eases their stress level somewhat to know that they can tweak something here and there and get a good result. Also, our clinical instructors are even more laid back, I think, than we are in the classroom, so they just create a very comfortable environment for the students.*

The diversity of the clinical education sites was also viewed as important in clinical education offerings and discussed by 1 participant as her program's major strength. She explained the array of sites by responding,

> *Students really like the variety and the exposure that we require of them. So, for example, every student will do a collegiate rotation. Every student will do a high school rotation. Every student will do a clinic rotation, like a PT clinic or a physician extender—orthopedic physician office rotation. We go a little beyond the accreditation requirements, in that sense, so students really enjoy the fact that they get that much of a variety.*

Our participants believed that the clinical education experiences they provide for their athletic training students are a major strength often due to the excellent preceptors who provide mentoring and act as appropriate professional role models.

Unique Experiences for Students. The final theme pertained to unique coursework or other ATP requirements that were distinctive or engaging. The elements of the PM ATPs that the directors mentioned were described as components perceived to be above and beyond what would be found at the undergraduate level. The first example explains experiences outside and inside of the classroom that athletic training students are able to experience. The PM ATP director explains the opportunities by stating,

> *They [athletic training students] do aseptic techniques, so they get scrub training. They're in the operating room with the orthopedic surgeons, and they are assisting with surgical procedures. We have a cadaver anatomy course. So they're getting one, sometimes two years if they want to come back and TA the second year, in human cadaver anatomy. [We also have a] health care finance class, so their fingers are always going to be on the pulse of what's going on with health care and the ever-changing [nature of health care legislation]. I think they're getting prepared and more marketable because of what they know about those things.*

The perception articulated here is that rarely would an undergraduate student assist with surgical procedures. Besides this example associated with a clinical course, didactic experiences were also identified as being above and beyond the undergraduate level. For example, 1 participant explained that, in addition to upper and lower extremity assessment courses, "students take a radiology class, and I think that gives them a deeper understanding too, to help them with their evaluation and assessment."

Finally, 1 participant described how a PM ATP allows for a deeper focus on injury prevention because of the research component they address in their program:

> *Then, finally. . . our research agenda for the last several years has been heavy in predictive modeling, Bayesian Analyses of Clinical Epidemiology, and I think that makes [our students] very, very marketable, because they can take now currently relevant research strategies to actually do injury prevention.*

Our participants felt that the ATPs they lead offer experiences above and beyond those available at the undergraduate level via different learning opportunities. The unique learning opportunities advance the student's clinical practice due to the ability to offer these experiences.

Personnel Modifications. We also found 1 theme revolving around improvements the participants would like to make to the PM ATP they direct. Several participants mentioned personnel issues as causing difficulty within the ATP. The theme revolved around the need for additional faculty and staff/preceptors. One ATP director wanted to have a bigger presence in the clinical education experiences of the athletic training students, but could not due to the lack of faculty. She explained by stating,

We need more faculty. Full-time faculty is only me and one other person. That's it. So we have some ideas and things that we want to do that we just can't do because we don't have the manpower to do it. But because we're pretty low on full-time faculty, I think that in the clinical setting, our presence is not there like it needs to be. So, for example, me popping in, our clinical coordinator popping in and spending more time with the students and the preceptors, observing their interaction, giving them on-site, immediate feedback as to how they can improve and help strengthen the learning environment for the student in the clinical setting, that has definitely been a weakness, without a doubt.

A similar sentiment as far as the need for faculty was voiced by another participant. She had trouble providing students with the individual attention she would like. She discussed by stating,

Well, we need more faculty. It always comes down to that, especially in situations like this one. It's just me, so it's really hard for me to be all and do all for the students. So we need more faculty, I would say, is our biggest weakness.

Interestingly, several of our participants also brought up concerns over the clinical staff at the institution they work. The following excerpt describes the concern in detail, eluding to the fact that preceptors should be professional role models to athletic training students. One ATP director said,

I think the other improvement that I'd like to see—we have historically been a very good program, as far as retention of staff members from the clinical side. But in the past couple of years, our athletics department has shifted in such a way that now, there's more being asked of our staff, and we're starting to see some burnout. Our head athletic trainer just took another position. We lost a staff member last year who had 12 years of experience here at [institution name]. It wouldn't surprise me if we have another staff member in the next year or two who decides to leave because of burnout issues. That concerns me because I think that that certainly places some concern in the minds of the students about what the profession is like and what their longevity in the program may look like. It's one of the areas that I'd like to see if there's something, from an academic standpoint, that we can do to aid in the retention of our staff members. Because we have a lot of very good people in this program, and I don't want to lose them. . . I think the other thing [important in retaining quality students] is who the clinical instructor is and what type of behaviors they're modeling and whether or not the student feels that their clinical instructor actually enjoys the profession anymore. The interaction for clinical instructor is probably the single greatest influence that anyone has over the students in this program.

Likewise, another participant discussed the problem of staff turnover in a slightly different light. She was concerned about graduate students being supervised by young professionals with only slightly more experience. She said,

Probably the biggest problem is we've had a high turnover rate of clinical staff. We really have no authority or decision making ability of what goes on in the sports medicine department, but the high turnover rate, and their strategy has been to bring in either GA's who are recently certified, or new grads, and as a graduate ATP, I want our students learning from veterans, and not from people who really have a few more months experience than what our students do. That's a glaring weakness that, unfortunately, is out of our control. All we can do is express our concerns and hope the administration does something about it.

Personnel issues, mainly a lack of faculty and turnover among preceptors, were an area that most PM ATP directors wanted to improve. Unfortunately, decisions to ameliorate these concerns are often made by institutional administrators and may be slow to happen.

DISCUSSION

The purpose of this study was to gain a holistic understanding of demographic characteristics as well as strengths and areas for improvement for CAATE accredited PM ATPs. Participants described small program sizes, high retention rates, high career placement within athletic training, and rated their programs high with respect to the academic environment, clinical education experiences offered, and didactic education. Although we found a retention rate and career placement rate in athletic training above 88%, 40% of the directors responded that retaining athletic training students is currently a problem facing athletic training education. Approximately 10% of physical therapy students departed their program in 2010 and 2011[12] while only 2.6% of physician assistant students who enroll either withdraw or are dismissed.[13] The PM athletic training student retention rate we found is similar to the physical therapy student retention rate but much lower than the physician assistant rate. Over 99% of physical therapy students found employment within 6 months of graduation in 2010 and 2011 compared to 88% for PM athletic training students, although we did not define a specific time period. We believe these disparities warrant additional attention in the literature through future research.

Our qualitative results support the perceptions of previous authors[5,6,14–16] in a couple of key areas. Participants noted that their ATPs provided an atmosphere conducive to student success. This involved providing individual attention and a caring environment, both with faculty and preceptors. Previous research in professional education programs has demonstrated that positive relationships and perceived faculty caring and support enhance persistence to graduation.[14] Moreover, caring educators have been implicated in assisting students in the area of retention.[16] Consistent with these studies, perhaps the program atmosphere in PM programs is a factor in high retention rates. The findings of our current study are consistent with a study that examined athletic training students' persistence to graduate from undergraduate ATPs due to positive interactions between faculty and peers.[15]

The PM ATP directors also indicated that they were able to provide academic courses and unique experiences for their students. This finding supports previous literature that identified focused professional preparation as a major strength to PM ATPs.[5] Our participants could offer such experiences because the athletic training students in the ATPs they lead could focus solely on athletic training. Professional master's athletic training students do not have general education requirements to fulfill allowing the curriculum to be flexible in comparison to the undergraduate model. The students who enter PM ATPs have already completed a bachelor's degree giving them a broad knowledge base,

including content, declarative, procedural, and conditional knowledge, and planning, monitoring, and evaluating skills to be successful with unique and challenging graduate coursework. With a broad knowledge base and metacognitive skills developed during their undergraduate experience, the PM athletic training students are able to then focus singularly on athletic training theory and evidence based practice[6] at a level that, in our opinion, is difficult with undergraduate athletic training students. By focusing on athletic training related material, PM athletic training students are immersed in deeper learning that is difficult to attain at the undergraduate level due to credit hour restrictions and the intellectual maturity of the students. Also, PM athletic training students have been described as focused, as they have made a conscious decision to pursue a career in athletic training.[5] Moreover, the maturity level of PM athletic training students has been identified as a facilitator to building commitment to the profession and developing coping skills which can help them be successful in the ATP.[5] Future research should determine if the unique experiences identified by our participants were helpful for PM athletic training students in terms of learning, persisting, and preparing for professional practice.

We also found similarities between our findings and those stated previously with regards to staffing issues. A lack of qualified faculty has been identified as a potential drawback to moving the entry-level degree to the graduate level.[5] Our participants spoke about a need for additional faculty to provide PM athletic training students with the support they need. However, we do not believe the shortage of faculty our participants spoke of was caused by a lack of qualified candidates for PM ATP faculty positions. Indeed, according to our participants, the lack of faculty was more of an administrative decision not to add additional faculty than an issue with potential personnel to fill positions. Staffing issues is not an isolated issue for academic personnel; several publications in athletic training have identified a shortage of full-time clinical athletic trainers, which impacts many facets including retention, role overload, and satisfaction.[17,18] Staff shortages are often attributed to administrator support and financial resources; however, our participants gave high ratings to the questions asking whether they believe they have adequate financial and personnel resources. As enrollment in PM ATPs rise, perhaps more faculty positions will be added to meet program requirements, particularly if there is a need for mentoring research projects. If such a scenario occurs, we speculate that a lack of qualified faculty with terminal degrees may present itself.

Limitations

This study provides descriptive information from PM ATP directors, and there are limitations worth noting. The level of career placement and attrition were based on the directors' perceptions, and these could not be verified; readers should interpret this information with caution. Also, although the qualitative results were based on saturation of the data, the findings represent 8 programs. Future studies should seek to explore these issues from a larger sample of PM programs.

CONCLUSIONS

We were able to portray PM ATPs from a descriptive standpoint. Our participants noted the fact that their ATPs retained athletic training students and placed them into athletic training careers. The participants described the didactic and clinical education experiences, social experiences, and overall ATP atmosphere as overwhelmingly positive. The small class sizes and involvement from faculty, staff, and preceptors helped create an environment, which fosters athletic training student learning. Finally, the PM ATP directors felt they could provide unique experiences and exceptional clinical education opportunities, but would like to make personnel modifications to strengthen their ATPs.

Acknowledgments

We would like to thank Lynchburg College for partially funding this study through a summer research grant.

REFERENCES

1. Carr WD, Volberding J. Sampling methods and the accredited population in athletic training education research. *Athl Train Educ J*. 2009;4(2):75–81.
2. Rich VJ, Kedrowski JJ, Richter S. Institutional profiles of CAATE accredited entry-level athletic training education programs in the United States. *Athl Train Educ J*. 2008;3:108–114.
3. Commission on Accreditation of Athletic Training Education. Accredited Programs. http://caate.net/accredited-programs/search-for-accredited-programs/. Accessed April 27, 2014.
4. Ostrowski JL. The entry-level master's route to certification: Program standards, outcomes and student characteristics. *J Athl Train*. 2013;48(suppl 3):S70.
5. Pitney WA. Requiring professional athletic training programs at the post-baccalaureate level: considerations and concerns. *Athl Train Educ J*. 2012;7(1):4–10.
6. Wilkerson GB, Colston MA, Bogdanowicz BT. Distinctions between athletic training education programs at the undergraduate and graduate levels. *Athl Train Educ J*. 2006;1:38–40.
7. Commission on Accreditation of Athletic Training Education. Standards for the Academic Accreditation of Professional Athletic Training Programs. 2012. http://caate.occutrain.net/wp-content/uploads/2014/01/2012-Professional-Standards.pdf. Accessed April 27, 2014.
8. Bowman TG, Hertel J, Wathington HD. Programmatic factors associated with undergraduate athletic training student retention and attrition decisions. *Athl Train Educ J*. 2015;10(1):5–17.
9. Dillman DA. *Mail and Internet Surveys: The Tailored Designed Method*. 2nd ed. New York, NY: Wiley; 2000.
10. Strauss AL, Corbin JM. *Basics of Qualitative Research*. Newbury Park, CA: Sage Publications Inc; 1990.
11. Pitney WA, Parker J. Qualitative inquiry in athletic training: Principles, possibilities, and promises. *J Athl Train*. 2001;36(2):185–189.
12. Commission on Accreditation in Physical Therapy Education. 2011–2012 fact sheet; physical therapist education programs. 2013. http://www.capteonline.org/uploadedFiles/CAPTEorg/About_CAPTE/Resources/Aggregate_Program_Data/AggregateProgramData_PTPrograms.pdf. Accessed May 16, 2013.
13. Physician Assistant Education Association. Twenty-sixth annual report on physician assistant educational programs in the United States. 2010. http://www.paeaonline.org/index.php?ht=a/GetDocumentAction/i/135135. Accessed May 16, 2013.
14. Shelton EN. A model of nursing student retention. *Int J Nurs Educ Scholar*. 2012;9(1):1–16.

15. Bowman TG, Dodge TM. Factors of persistence among graduates of athletic training education programs. *J Athl Train*. 2011;46(6):665–671.
16. McEnroe-Peitte DM. Impact of faculty caring on student retention and success. *Teaching Learn Nurs*. 2011;6(2):80–83.
17. Mazerolle SM, Bruening JE, Casa DJ. Work-family conflict, part I: antecedents of work-family conflict in National Collegiate Athletic Association Division I-A certified athletic trainers. *J Athl Train*. 2008;43(5):505–512.
18. Mazerolle SM, Bruening JE, Casa DJ, Burton LJ. Work-family conflict, part II: job and life satisfaction in National Collegiate Athletic Association Division I-A certified athletic trainers. *J Athl Train*. 2008;43(5):522–513.