original research

The Doctor of Philosophy Experience of Athletic Trainers: Facilitators and Barriers to Anticipatory Faculty Socialization

Thomas G. Bowman, PhD, ATC*; Joanne C. Klossner, PhD, ATC†; Stephanie M. Mazerolle, PhD, ATC, FNATA‡

*Lynchburg College, VA; †University of Maryland, College Park; ‡University of Connecticut, Storrs

Context: It is important to understand the process whereby athletic trainers learn about their future roles, particularly when the roles can be complex and demanding. Little is known about the experiences of athletic training doctoral students, including facilitators and barriers to socialization as aspiring faculty members.

Objective: To investigate factors influencing the anticipatory socialization of athletic training doctoral students into future faculty roles.

Design: Qualitative study.

Setting: Universities with athletic training doctoral students.

Patients or Other Participants: We recruited 28 students (19 women, 9 men, age = 28 ± 3 years) with a minimum of 1 year of doctoral coursework completed and participating in an assistantship at the time of the study to reach data saturation. Participants were certified for 6 ± 3 years and represented 5 National Athletic Trainers' Association districts and 9 institutions.

Data Collection and Analysis: We completed semistructured, 1-on-1 telephone interviews with participants. We transcribed each interview verbatim and analyzed the data using an inductive approach. Peer review, multiple-analyst triangulation, and member checks ensured trustworthiness.

Results: We uncovered 4 themes from our analysis related to facilitators and barriers to professional socialization. Participants described comprehensive autonomous experiences in research that allowed them to feel confident they could sustain a scholarly agenda. Independent experiences and lack of pedagogy training yielded mixed preparedness relative to teaching responsibilities. Limited formal experience led to incomplete role understanding related to the service component of the professoriate. Finally, with regard to the administrative duties associated with athletic training faculty positions, participants noted a lack of direct exposure to common responsibilities.

Conclusions: Role occupation in various aspects of the professoriate helped doctoral students prepare as future faculty members, although full role understanding was limited. Intentional exposure to research, teaching, service, and administrative expectations during doctoral experiences may facilitate the socialization of future athletic training faculty into academic roles.

Key Words: professoriate, role occupation, academia

Key Points

- Faculty roles are complex, and doctoral students may not experience all facets of the professoriate during preparation.
- An incomplete understanding of responsibilities has the potential to increase role strain, especially during inductance.
- Meeting expectations for tenure and promotion can be facilitated by adequate socialization.

P rofessional socialization is the process by which professional identity is gained while the roles and responsibilities of a chosen career are learned.[1] Initially, individuals learn about a future career before entry through anticipatory socialization.[2] After choosing a career and completing the professional socialization process, additional role learning occurs organizationally through in-services, mentoring, and other learning opportunities that employers provide after an employee joins a particular work setting.[2] The literature[3–10] in athletic training regarding the socialization process for students and clinicians is fairly robust, examining the many roles and clinical settings defined within the profession. The framework has provided context to the development of professional identity through structured and unplanned processes.[11] However, an identifiable gap exists within the literature specific to the socialization of athletic trainers (ATs) pursuing an academic or research doctorate. Athletic training has undergone significant educational reform over the last decade, culminating in the announcement of the move to graduate-level education for entry-level practice.[12] As a result, it has shifted the requirements for well-qualified and trained athletic training educators who are prepared to meet professional role expectations as well as the demands placed on graduate faculty in higher education.

The role of athletic training faculty members is critical on many levels but especially because they serve as educators and mentors to aspiring athletic training professionals. Hertel et al[13] recognized the need to adequately train and prepare future athletic training educators. For decades, discourse across disciplines identified the importance of adequately preparing future faculty to allow them to

effectively transition into academia.[11,14,15] Furthermore, it is critical that future faculty learn the values, roles, and expectations of the discipline and professoriate in order to socialize themselves organizationally[11] and ultimately succeed in early faculty-review processes, which typically occur within the first 3 years in their career.[15]

Regardless of the discipline, it is commonly accepted that faculty roles in academia typically include participating in various levels of scholarship, teaching, and service. Expectations in each of these areas depend upon many factors, such as the mission of the institution, the school or department (or both), as well as the type of faculty appointment, and other assigned administrative duties. Athletic training faculty members often serve the role of instructors in the classroom or laboratory, program administrators, scholars, and student mentors.[16] In addition to these traditional roles of the professoriate across disciplines, athletic training and other professional health care faculty are unique compared with other disciplines in that they often carry the additional burdens of administrative work, maintenance of accreditation standards, and in some cases patient care.[16] Role ambiguity as well as role strain are potential outcomes of these additional responsibilities and expectations related to administrative roles, such as program director or clinical education coordinator, as exposure to these duties is often not well defined or explained in doctoral education.[17] Ambiguity results when the roles are not defined or they are left for the individual to explore only once engaged in the role. Complicating role inductance can be the incompatibility of doctoral education training (professional socialization) and actual transition into the workplace (organizational socialization). Individual institutions have different expectations related to the agenda and mission of the institution, department, and program; thus, despite a broad professional socialization process, new faculty members might not be fully aware of the diversity within higher education.

Although different at each institution, administrative duties likely contribute to meeting faculty service expectations; in academia, however, scholarship and teaching productivity is typically emphasized over service in the tenure and promotion process. Competing professional obligations and expectations can result in a professional dilemma for faculty members[16] and possibly role strain. Most research has been specific to the experiences of ATs who are preparing for a role in the academe,[13] yet untenured program directors experienced greater emotional exhaustion than tenured program directors,[18] suggesting that it is difficult for early-career faculty to balance competing job demands. Moreover, evidence,[19] although dated, indicates that academic health care faculty, such as physical therapy and nursing professionals, tend to place more emphasis on teaching and mentoring doctoral students than focusing engagement on their own research agendas. Depending upon departmental and institutional expectations, a lack of focus and dedication to their research agenda could be a potential concern when ATs try to navigate the tenure or promotion process.

Regardless of the discipline, those pursuing doctoral education and subsequently seeking faculty positions in higher education should be prepared to enter academia well equipped to successfully navigate role complexities of the professoriate without significant role strain. For doctoral students preparing to become faculty members, graduate school is a critical socialization period.[11,20] Doctoral education should include developmentally intentional opportunities for graduate students to experience all facets of future faculty work[11,19,21] in order to prepare them for the rigors of academic or professional careers.[22] Furthermore, although the debate over professional education reached a climax with the 2015 announcement that the professional degree in athletic training will transition to the master's level,[23] little dialog has addressed who prepares future ATs in the classroom and how these individuals affect the development of professional students. Additionally, research is limited specific to how future faculty become socialized into their developing professional roles.

Professional discourse within the athletic training faculty community identifies the possibility of role overload, as many juggle the demands of program administration, a changing mindset regarding educational reform, and the expectations of faculty success in terms of scholarship, teaching, and service. Faculty roles are complex, much like traditional athletic training roles, but role comprehension is needed to help with the transition, regardless of the role. Thus, the purpose of our study was to investigate the anticipatory socialization of doctoral students seeking careers in athletic training education. Specifically, our research question was focused on understanding the facilitators and barriers to anticipatory socialization for ATs who were pursuing their doctoral degree and subsequent careers in athletic training education.

METHODS

Our qualitative study used an exploratory approach to evaluate our research purpose. We selected this method specifically because it has been the trend for socialization research in athletic training.[3,6,7] Furthermore, a qualitative paradigm is recommended when the primary research objective is to gain insights into an individual's or group's perceptions about his, her, or their personal experiences.[24,25] We used the socialization paradigm[3,6,7] as our platform for inquiry because we were concerned with how future faculty members are educationally trained. The approach was appropriate as we were interested in the process whereby an individual is trained to become a participating member of the higher education community.

Participants

We recruited 28 doctoral students for the current study: 19 women and 9 men. All participants were pursuing their doctor of philosophy degree (PhD). The average age of the participants was 28 ± 3 years, and they had been certified ATs for 6 ± 3 years. The participants represented 5 districts within the National Athletic Trainers' Association and 9 institutions (see Table 1 for additional demographic data). Twenty-four participants (85.7%) responded that they would like to pursue a faculty position upon finishing their doctoral degree. The remaining career plans were corporate or industry research (n = 2), athletic administration (with a focus on health care, n = 1), and community health education (n = 1). For the 24 participants seeking a career in the professoriate, 10 specifically stated they would pursue a teaching-focused position, 7 would like the majority of their responsibilities to emphasize research, 4

Table 1. Individual Demographic Data

Academic Year	Pseudonym	Age	Sex	Years Certified by Board of Certification	National Athletic Trainers' Association District	PhD Concentration (Primary)	Research	Teaching	Administrative	Clinical
4	Annie	26	Female	5	4	Education	X	X		
4	Ashlyn	31	Female	10	9	Biomechanics	X[a]	X		
4	Bob	26	Male	5	3	Sports medicine	X	X[a]		
4	Brayden	28	Male	6	3	Physical education		X		
3	Elizabeth	32	Female	8	4	Health and rehabilitation science	X			
4	Erica	27	Female	6	4	Motor control		X		
5	Isabella	28	Female	7	1	Education				X
2	Jamie	26	Female	4	4	Motor development	X[b]	X		
3	Janelle	36	Female	14	9	Rehabilitation science/ biomechanics			X	
3	Jessica	28	Female	6	4	Kinesiology	X[b]	X		
3	John	27	Male	4	2	Rehabilitation science	X	X[c]		
1	Kelsey	25	Female	3	1	Kinesiology	X			
3	Kimberly	31	Female	10	2	Rehabilitation science	X			
4	Mark	28	Male	7	1	Kinesiology	X[b]	X		X[a]
3	Mary	30	Female	8	1	Kinesiology	X[c]	X		
2	McKenna	25	Female	4	9	Rehabilitation science/ biomechanics	X			
4	Michael	27	Male	6	8	Human movement science	X	X		
2	Nate	30	Male	7	3	Sports medicine		X	X	
2	Paisley	30	Female	8	1	Sports management/ leadership		X[c]		X
3	Pam	28	Female	5	4	Kinesiology	X			
2	Paul	26	Male	3.5	3	Human movement science		X		
2	Pete	25	Male	3.5	2	Kinesiology		X		
1	Robyn	30	Female	9	2	Rehabilitation science	X	X		
4	Rylan	34	Female	12	4	Education	X[d]	X		X
3	Steve	29	Male	6	4	Health and rehabilitation science	X			
3	Susan	26	Female	4.5	3	Human movement science	X	X		
3	Terry	27	Female	6	2	Athletic training	X			
2	Zoey	25	Female	4	1	Exercise science	X	X[c]		X[a]

Abbreviations: X = current assistantship; X[a] = previous assistantship; X[b] = acknowledged as expectation; X[c] = acknowledged as not funded; X[d] = future assistantship.

wanted administrative roles in addition to other faculty responsibilities, and 3 desired a split appointment between teaching and clinical practice. The doctoral assistantships of 9 participants required research responsibilities, some of which were fully funded by research grants. Eight participants received funding for their doctoral studies via teaching assistantships, and 5 split their assistantship funding between research and teaching.

Data-Collection Procedures

Before data collection, we had our interview guide peer reviewed by an experienced qualitative researcher with an extensive background in athletic training education. The peer provided feedback on content and question flow before the interview guide was finalized (Table 2). After securing institutional review board (IRB) approval, we actively recruited ATs using convenience- and snowball-sampling procedures.[25] We capitalized on professional relationships with advisers of ATs in doctoral degree programs to identify potential participants meeting our criteria. In addition, we reviewed the National Athletic Trainers' Association Web site[26] for doctoral programs and sent e-mails to directors of athletic training doctoral programs to increase our participant pool and improve national diversity. Our criteria for this particular study were full-time enrollment as a doctoral student, a graduate assistantship, and completion of at least 1 full year of coursework. We also called on enrolled participants to identify other individuals meeting our study's inclusionary criteria. Data saturation guided our recruitment process,[25] and no new themes emerged from the data after 28 interviews were completed.

After the informed consent forms were signed, we contacted participants via e-mail to schedule an interview time. One of the 3 researchers conducted each interview session via telephone. Interviews lasted approximately 45 to 60 minutes each. We crafted the interview guide based upon our review of the previous literature specific to anticipatory professional socialization,[6,7] while ensuring it would address the research questions established at the outset of the study. In addition, we selected a semi-structured interview format, which followed a framework

Table 2.   Interview Guide[a]

1. In general, what doctoral experiences have prepared you for this "dream" job?
2. Most institutions of higher education evaluate faculty on their contributions through various review processes. What is your understanding of such processes and the areas of contribution upon which faculty are typically evaluated?
3. Do you feel prepared to:
   a. Teach in a professional AT program? Why or Why not?
   b. Teach in a postprofessional AT program? Why or Why not?
   c. Conduct independent research as part of your future faculty role? Please elaborate.
   d. Provide service to your institution and/or profession? Please explain.
   e. Take on administrative responsibilities such as a PD or CEC that are often associated with faculty AT positions? Why or why not?
   f. Provide AT services to patients? Please explain.
4. Describe your experiences and knowledge of the CAATE standards.
5. Please describe specific opportunities and/or experiences which have influenced your readiness to take on the roles and responsibilities as:
   a. An educator within a higher education environment.
   b. A researcher within a higher education environment.
   c. A member of the service aspect of a higher education environment (eg, serving on a committee).
   d. An administrator within higher education, for example a Program Director or Clinical Education Coordinator.
6. Please describe your level of satisfaction with the way in which your doctoral studies prepared you:
   a. In the theories and methods of teaching
   b. As a future researcher in the field
   c. In your ability to provide your institution/profession with service
   d. Relevant to your clinical skillset
   e. Specific to other roles and responsibilities you may have such as program administration and/or serving as a preceptor
7. During your doctoral studies, what other experiences did you have that have impacted your professional development (eg, attending professional conference, workshops, etc.)?
8. Do you feel as though you are satisfied OVERALL with how your doctoral work has prepared you for your future professional endeavors? Please explain.
9. In what ways have your doctoral studies impacted your:
   a. Professional growth in the field overall?
   b. Future career path?
10. If you could improve upon your experiences as a doctoral student, what would you change and why?
11. What advice would you give to other athletic trainers who are considering the pursuit of a terminal degree and to educators who are mentoring athletic training doctoral students?

Abbreviations: AT, athletic trainer; CAATE, Commission on Accreditation of Athletic Training Education; CEC, clinical education coordinator; PD, program director.

[a] Guide is presented in its original form.

of set questions (Table 2) yet still permitted open discussion between the participant and interviewer. The interview guide provided cues to ensure that our research questions were answered but allowed for adaptability and a more natural discussion. We digitally recorded all interviews and had them professionally transcribed verbatim before data analysis. We provided all participants with pseudonyms (Table 1) to protect their identities.

Data Analysis

We used an inductive approach to analyze our data.[27] First, in the open-coding step, we assigned codes to the data after evaluating the transcripts in their entirety. Specifically, our aim was to gain an understanding of the participants' experiences as related to our research questions. We extracted the dominant findings by labeling them with appropriate terminology to reflect meaning and context. Second, we examined the relationships between the labels identified during the open-coding procedures. Some labels were collapsed to reflect developing relationships between the data. The final step, selective coding, entailed the refinement of our findings specific to our research agenda.

We used 3 common credibility strategies—peer review, member checks, and multiple-analyst triangulation—to secure the trustworthiness of the results. Peer review provided an external check of our research agenda, including our interview guide, data-collection procedures, and interpretation of the data. Our peer was an experienced qualitative researcher with more than 20 publications in the areas of professional socialization and role inductance for ATs. Member checks, which have been labeled the most critical technique for creating credibility,[28] were completed with 3 participants to help verify the findings and interpretations of the researchers. Upon completion of the transcription process, we gave randomly selected participants a draft of the study's findings as written by the researchers for review. The participants provided feedback to help finalize the presentation of the results. Data triangulation is second to peer review as an effective strategy to establish trustworthiness of the data.[29] We used multiple-analyst triangulation, whereby 2 researchers independently coded the data before comparing their interpretations. Negotiations between the 2 researchers took place to ensure consistent terminology and theme agreement before the findings were shared with the participants and peer for review.

RESULTS

Based on our analysis, we were able to determine themes for facilitators and barriers to doctoral students' experiences regarding their professional socialization into their future roles as faculty members in higher education. Participants described *comprehensive autonomous experiences* in research that allowed them to feel confident they could sustain a scholarly agenda. *Independent experiences and lack of pedagogy training yielded mixed preparedness* for teaching responsibilities. *Limited formal experience led to incomplete role understanding* related to the service component of the professoriate. Finally, with regard to common administrative duties associated with athletic training faculty positions, participants noted a *lack of direct exposure to common responsibilities*. The themes are defined and presented in the following section with supporting participant quotes.

Research: Comprehensive Autonomous Experiences

Overwhelmingly, our doctoral students perceived that they had extremely well-rounded opportunities for research. They felt these experiences prepared them for the next step of their professional careers in the professoriate. We

determined this to be a comprehensive experience, as they were given the chance to engage in activities related to grant writing, protocol development, data collection, dissemination of results, and other aspects critical to research in higher education. We also viewed these experiences as the chance to gain role occupation, or engagement in the various skills and basic knowledge needed in this area of faculty responsibility. Role occupation facilitated role learning and understanding. In other words, role occupation provided our doctoral students the foundation for independent functioning as faculty members. Although all participants engaged in research activities, 14 had assistantships that required research responsibilities. The assistantships, therefore, provided a platform for role occupation. For example, Susan stressed the importance of her graduate-assistantship experiences as a doctoral student, saying, "The fact that I have played a role in a lot of large-scale research studies" prepared her for a faculty position.

All 28 participants described extensive involvement in research projects, which were facilitated by their doctoral mentors and their assistantship positions. Kimberly summarized our findings most effectively:

I've been pretty much handed and been able to both develop the protocol and be the contact person and collect the data and manage the data and analyze it, write it up [for a major research project]. So I've been able to evaluate that process from start to finish, and so I think that, in itself, has been a great experience for confidence building, for learning, for a CV [curriculum vitae] builder, just to demonstrate that, from start to finish, I've been able to manage this project and been given this project to do.

Janelle described how her confidence as a researcher grew over her 4 years as a doctoral student due to gradual role occupation. Her independence grew as her skills developed, leading to a feeling of readiness to conduct independent research:

Obviously, I can see a progression over the last 4 years that I've been here, from when I first came to—just really trying to understand the basics of research, to the point now where I feel like I'm an independent researcher. I could go off and do a study on my own. So I've had multiple experiences here. I've done multiple studies, and I've had different levels of supervision for each of those studies, depending on where I was in the program. So I definitely feel a lot more confident now than I did 4 years ago.

Robyn believed she was prepared to function as an independent researcher because she gained experience with research equipment and had gone through the entire research process. In addition to designing and collecting data, she mentioned experience with the IRB:

I guess the main thing has been working with my fellow doctoral students on, like I said, where you do independent projects within the lab using the lab equipment we have here at [institution name]. Working alongside of them with the equipment and learning how

to handle subjects, how data processing goes, and with them, again, learning the process from start to finish, throughout writing a white paper, having it reviewed by faculty, getting it approved, submitting it to the IRB, all of that.

Our participants discussed the experiences they encountered in their doctoral education that would translate to their future faculty roles. The foundation of these experiences was comprehensive role occupation and interactions in research.

Teaching: Independent Experiences and Lack of Pedagogy Training Yield Mixed Preparedness

Analysis revealed a mix of experiences related to teaching. Most participants experienced teaching by engaging in the role, yet it was often done without pedagogy training or feedback from supervisors or doctoral advisers or mentors. The majority of our respondents believed these teaching experiences were the key to preparing for their future faculty roles. We termed these experiences *role occupation*, much as we did in the research theme. Susan described a robust teaching experience, in which she taught classes by herself and also received feedback from faculty to help prepare her for the professoriate:

I would say the opportunity that I've had to teach courses each semester. So I feel comfortable in front of a class, and I feel comfortable creating the syllabus and a journal we cover throughout the course and the quizzes and exams and just kind of being in charge of a class from beginning to end. So I think having that experience every semester and then the summers that I've had here have really influenced my readiness. I think on top of that, the fact that I have feedback from most of my students each semester and then I've also been evaluated by at least 1 faculty member, sometimes even 2 each semester, where they've actually written up a formal evaluation. I went inside and talked with them and discussed how I did and what I could do for improvement. So I think that all of that, the feedback that I've received from more senior faculty members has been really beneficial, and it's helped me improve my teaching abilities.

The importance of independent teaching experiences was recognized by some of our participants, and in many cases, it was facilitated through their roles as teaching assistants (TAs). Paul acknowledged his role as a TA:

At [institution name], I taught anatomy and physiology labs, and also I TA'ed for a master's-level cadaver anatomy class. The biggest probably was when I taught the intro to [athletic training] lecture, which was good experience because I was teaching in a lecture hall with 50–100 kids up there, teaching by myself. It was my own class, and I felt like that experience helped me a lot in preparing me for the future of teaching.

Paul's TA experience was 1 aspect of his ability to gain an understanding of the teaching role, but he also clearly believed that more independent experiences prepared him

as well for the professoriate. Although different doctoral programs offered varied levels and types of teaching experiences, doctoral students recognized the importance of those opportunities, whether they were assigned teaching responsibilities directly or pursued such opportunities on their own. Janelle acknowledged:

> We don't have a lot of teaching responsibilities with our program per se, but I think we'll have the option to pursue those, so I try to take as many opportunities as I can to get in the classroom and to teach.

Many participants had independent teaching experiences or had served as TAs, which prepared them for teaching. Despite these teaching experiences, only 2 (7%) of our participants stated they were required to take pedagogic methods or curricular theory courses, although a few students pursued teaching workshops or courses on their own. Mary, a third-year doctoral student, explained how her program did not formally prepare her to teach:

> As far as teaching, I feel like that's something that's lacking, at least in my education. Like I wasn't taught how to teach. It was just kind of, "Here, you're teaching Gen[eral] Med[ical] your first semester as a doctoral student. Here you go. Go for it." So that was really a lot of learning in the class as I was teaching, to see what worked, what didn't. . . To put it simply, I never was taught how. I just went off of what I was taught, and then I'm like, wow, that's a really boring way to teach.

Others had similar experiences, stating they learned "in the trenches," had to "just know that material and go in there and do it," or "sink or swim." Robyn, who had just completed her first year in the doctoral program, hoped the program would afford her more time to develop her primary teaching interest but was "not too sure" if that would happen. Steve reported his program of study included curriculum coursework, but he was "kind of unsatisfied" with how it prepared him to teach because the coursework was not very comprehensive. He explained:

> So we take 1 year of courses, a semester of curriculum, and then a semester of teaching. I thought they were kind of light, and I wanted more teaching education theory, more of how people learn, and they were kind of—they weren't excellent courses. I was disappointed in them. They were kind of—they were lower level than I wanted.

Most of our participants expressed some degree of satisfaction with their practical teaching experiences overall, but the majority desired more specific pedagogic preparation. One participant, Brayden, summarized feelings held by many participants, stating he was satisfied with his overall doctoral preparation "from my assistantship standpoint" but "I wish I would have had actual courses in instruction and how to actually do that, I guess."

Ultimately, even though teaching experiences were available to most of our doctoral students, these experiences varied by student and by institution. Some were instructors of record for a particular class, and others served more as TAs or simply volunteered to serve as guest lecturers from time to time. Participants valued these experiential opportunities, but most also acknowledged that their programs unfortunately did not provide formal pedagogic training that could support teaching roles in higher education.

Service: Limited Formal Experience Leads to Incomplete Role Understanding

Our participants had some general knowledge of the service aspect of faculty roles, but this was limited. There was an acknowledgment that service was part of faculty members' roles, yet they lacked a full appreciation due to a dearth of diversity in experiences related to the service aspect. In addition, inconsistencies related to what activities constituted service were common. Elizabeth conceded, "I'm sure there's a lot more that goes into service that I have not yet been exposed to." Others stated that service was the "least out of everything that we have had the opportunity or are required to be involved in" and "there's [sic] certainly some components of service that I would feel more prepared for than others." Upon evaluation, 32.1% (n = 9) were not satisfied with the way in which their doctoral program prepared them to provide service to their institution or profession (or both) compared with 28.6% who were satisfied. Our numbers reflect responses to questions pertaining to their socialization experiences and overall satisfaction with their doctoral education. Although some of our participants acknowledged service as a role of faculty members, doctoral students more frequently either identified service as something in which they occasionally engaged, or admitted, as did third-year doctoral student Jessica, that service "was 1 area I honestly never thought about." Our participants were unsure of service obligations, stating "no one knows what that means" or admitting they did not "know too much about the service aspect."

For those who did mention familiarity with the service responsibilities of athletic training faculty members, committee work was the most common mechanism leading to understanding. Discussion among the participants included some comprehension of the necessity of service to their profession and institution, but opportunities for consistent engagement in this role were limited. Examples of involvement in the service aspect of academia included institutional and professional committees, mentoring undergraduate and graduate students through honors and masters' theses, and other intuition-based committee work. The data revealed a blend of involvement in institutional committees and professional committees. Nate described several institutional service activities that he was involved in, 1 specific to athletic training and others outside of his discipline:

> During my time here at [institution name], I've taken on the mentorship of the athletic training club, and I've also been on some other committees recommended by the chair of my department. . . There's our institutional effectiveness committee. They have 2 graduate assistants on there, so I'm on that. I'm actually the chair of that committee. Then our adult community in higher education program has an advisory group that I'm also a part of.

Some participants also cited their experiences mentoring master's students at their current institutions. They believed the experience was purposeful as it helped them to prepare for faculty positions, and they felt it was an aspect of the service component of their roles in academia. Although some participants mentioned advising when discussing teaching or research (especially with regard to the thesis project) preparation, most specifically identified their work as mentors as being helpful while preparing to provide service. Bob explained how his interactions with master's students will prepare him to serve an institution:

> I had 1 person my first year. I mentored 3 students in the master's program my second year, then 2 students these past 2 years, and with that process, specifically, we would come all the way from the time that they start at [institution name] pursuing their master's degree until they have a finished, completed thesis project, and we'll work very closely with them throughout the entire process to kind of help guide them throughout the project. I think that would really contribute to being able to work as a faculty member in higher education just because that's along the role of most of the positions that are available.

In a few cases, our participants discussed being involved with service activities that directly contributed to the profession, especially via peer review or committee work. Erica's professional service engagement was facilitated in part by her doctoral mentor and program:

> I definitely have a good role model to look at for those things [service activities]. I do some service for athletic training. I'm on a couple of committees at the state level that keep me involved a little bit, and I'm an item writer for the BOC [Board of Certification] and things like that. So I do some service things now for the athletic training profession.

Erica's comments also reflect the importance of mentoring and role modeling, as doctoral students can observe their mentors and the value they place on service-related professional activities. Only 1 participant directly identified modeling by a faculty member. Jamie, a second-year doctoral student, suggested that, even though service responsibilities were not discussed intentionally within the curriculum, program faculty "assumed we know that it's important because we see them doing it." Overall, service activities varied among our participants, and only a few had some level of service exposure (actual engagement in service roles), thus resulting in a lack of full understanding of faculty service expectations.

Administration: Lack of Direct Exposure to Common Responsibilities

Of the primary functions of athletic training faculty members, our participants were most deficient in the area of administrative and programmatic oversight. Five participants (18%) directly acknowledged their desire to pursue administrative roles in higher education, yet a large number of our respondents were unaware of the basic aspects of managing an athletic training program. When asked about

the Commission on Accreditation of Athletic Training Education (CAATE) Standards for Accreditation, many of our participants were ill informed or unaware of them. Isabella admitted with a laugh, "I don't think I ever looked at those standards," and Kimberly responded, "I don't even actually know what that stands for," when asked about her understanding of the CAATE standards. Our data overwhelmingly indicated that ATs pursuing doctoral degrees lacked formal preparation in terms of understanding the administrative policies and procedures that govern athletic training education. According to Michael, insufficient administrative role preparation regarding the CAATE standards could be problematic when seeking a faculty position upon graduation:

> I wouldn't say by any means that's something that's really exposed to us. There's really not much in terms of what is expected from us to apply and to know them [CAATE standards]. That's an issue I think, again, because a lot of us are going to be applying for jobs that are clinical coordinators or are program directors, and it's not something that on a consistent basis we're really exposed to.

Our participants' lack of understanding was largely due to a lack of exposure and chances to engage in that aspect of the faculty role. Robyn articulated the importance of authentic experience in role preparedness, stating, "I mean, again, until you really are actually involved, I think it's still kind of an abstract idea. You understand the concept, but [it's] kind of a learning process regardless." Robyn's reflections were in response to her thoughts on being ready to handle the responsibilities of program directing or clinical coordinating. On-the-job learning seemed to be the consensus among our participants. That is, despite lacking formalized training during doctoral education, once they were in faculty roles, they could learn about those expectations. Erica shared that she lacked specific experiences with the administrative side of athletic training faculty roles but felt she could translate her other doctoral experiences into learning the roles:

> I would definitely have to do a lot of learning, a lot of the CAATE standards, and things like that. I do not know a lot about—it's not something that I've ever had the opportunity or even sought out myself to kind of know those standards, and they've changed a lot since I've graduated. . . No, I don't feel prepared for that, but it's definitely something that I think can be learned.

For those who identified some basic understanding of the administrative side of athletic training faculty members' roles, a mentor or faculty member appeared to be the catalyst to the experience. Zoey had the opportunity to gain experience as a clinical coordinator, as she was given the chance to help organize and implement a preceptor workshop as well as make some decisions regarding clinical placements. She thought these responsibilities would help prepare her for any administrative duties she might encounter as a faculty member in the future:

> Specifically this year, I've been in charge completely of taking over placing students at clinical sites and kind of

communicating with the preceptors, and I was in charge of forming our preceptor training for this year. So I've had some really significant opportunities to be involved with our preceptors and kind of learn what they need and how our students kind of fit into those roles and how to communicate with them so that they're happy and the students are happy.

Susan noted that, as a doctoral student, she was given the opportunity by the program director of the professional program to help "with interviews for acceptance to the athletic training program." It was interesting that she believed her comprehension of administrative duties developed through frequent conversations and a good rapport with the program director of the professional program at the institution she attended: "I do have a good relationship with our program director here, and I think just conversations that I've had with her as a colleague has [sic] assisted in understanding that process more so than any specific experience that I've had."

Jessica agreed that having a good relationship with a mentor in the role of a program director was helpful when considering future administrative duties. She declared, "I think it's just my day-to-day interactions with my adviser, who is a program director." Informal learning was the primary mechanism for teaching some of our participants about administrative roles and responsibilities associated with faculty roles in athletic training. Although formal administrative experiences were rare among participants, informal learning opportunities appeared to provide at least basic exposure to expectations outside of research, teaching, and service.

DISCUSSION

The doctoral experience is critical to anticipatory socialization. Some argue that it is actually the first stage of one's career in the academy[11] and when doctoral students are shaped to become "stewards" of their discipline.[14] Doctoral students undergo multiple socialization processes simultaneously[11] as they learn a range of implicit and explicit expectations of the professoriate, their own discipline, and the culture of their current program. Whereas many factors influence graduate student development,[11] purposeful preparation of doctoral students can improve perceptions of career readiness in more than 20 competencies commonly associated with faculty success related to research, teaching, and service.[30]

Professional socialization processes during educational preparation are typically characterized by formal, structured learning opportunities.[16,24] However, a combination of formal and informal socialization processes should be available for ATs to learn to navigate the many roles and responsibilities they will assume. These processes may be similar regardless of the role ATs occupy during future career paths.[3–7] Consistent with this idea, the experiences our participants described were both formal and informal in nature, with formal research and teaching tactics and more informal service and administration strategies. As with athletic training research,[5,7,31] graduate students, regardless of discipline, rely on a host of support networks, internal and external to the graduate program, to help them navigate the culture of their new career environments.[11] Our findings

also reflect the complexities in higher education and the likelihood that doctoral education may not be able to prepare future faculty members for all aspects of the role. Specifically, we found that our participants were deficient in the areas of administration and service. Therefore, when new faculty members take roles that require and view these areas as necessary, increased mentoring may be needed.

Research: Preparation Through Comprehensive Role Occupation

Research is typically the cornerstone to faculty members' identities and roles within higher education; thus, it is often a critical aspect of doctoral training. Our participants reported that role occupation in the area of research gave them confidence that they could plan and execute studies themselves and, hence, was the primary socialization tactic used for role understanding. Comprehensive research experiences facilitated self-confidence, which clearly influenced the participants' readiness to take on the roles and responsibilities of a researcher within a higher education environment, the predominant theme in our research. It is not surprising that our participants were able to identify their strong experiences with research. As a result, they felt ready to fulfill this aspect of faculty members' roles in order to succeed in academia. Although it is not the only factor in success, scholarship is a key ingredient for new faculty members in higher education. As pointed out by several athletic training scholars,[13,32,33] our advancement as a profession is rooted in the development of new researchers who can successfully disseminate new knowledge. Our findings suggest that doctoral educators are effectively socializing future athletic training faculty members to be successful in the research aspect of higher education. We also believe that the research-oriented assistantships of many of our participants provided the autonomy and the experience needed to become acclimated to these responsibilities and expectations needed for success.

Our participants felt that the research experience they gained would help them the most as they transition into their careers. Typically, as graduate students become more mature and independent researchers, faculty mentors relinquish control and grant more responsibility for designing and carrying out all aspects of research projects.[34] These components include reviewing the literature, seeking external funding, preparing IRB documents, recruiting participants, collecting and analyzing data, and disseminating the results. This progressive independence is important as they become socialized toward their developing roles as future junior faculty.[34] Participants progressively took ownership of their development as researchers because faculty advisers gave them the freedom to practice research skills and gradually engage in the entire research process. In fact, our participants were able to draw parallels between the tasks they were required to complete as part of their research expectations and other tasks they would be expected to fulfill as faculty members (ie, service, administration). We believe these connections demonstrate increasing socialization into their future faculty research roles.

For many faculty members, development as an effective researcher is critical to success within higher education environments. Those individuals who receive effective

mentoring are often more successful and productive in regard to grant funding and publication history.[35] Our findings suggest that mentoring is occurring for these doctoral students and is likely helping them accurately envision the research expectations they will likely encounter as they navigate faculty tenure, promotion, and reappointment processes in the future. Moreover, it is apparent that doctoral advisers and mentors of our participants recognized the importance of the research component of future junior faculty, as all of our participants were well versed in skills related to planning, implementing, and publishing their research.

Teaching: Independent Experiences and Lack of Pedagogy Training Yield Mixed Preparedness

Much like research, teaching is often a primary function of faculty members.[16] The need to demonstrate success as educators, therefore, must also be an important experience for students during their educational training in addition to scholarship. Recent literature[36] suggested that the professional socialization process for faculty members is facilitated by role engagement or role occupation through assistantship positions. Role occupation, for our group, tended to occur formally as our participants either held a TA position or taught independently. Thus, because they were required to engage in the role, they became familiar with those skills needed to facilitate the role. Early and repeated success with teaching tasks facilitates self-efficacy.[37,38] For those who were required to fulfill the teaching expectations of typical faculty members, they gained experience with tasks, including development of a syllabus, preparation of course materials (ie, presentations, lectures), creation of student learning assessments, and grading, leading to readiness to take on the role of educators.

Active engagement in the role of educator was important, particularly as formal pedagogic training was limited for this sample of doctoral students, and little curriculum work was dedicated to the development of expertise as educators. Despite active engagement in the role through assistantships, our participants did not receive training in or feedback on skill development. They recognized this shortcoming and believed formal coursework could be helpful for them but relied on practical experience in the classroom as well as clinical and content expertise to assist them in being effective in this role. Many new faculty members feel unprepared or at best not completely confident to handle the responsibilities associated with teaching,[11] likely due to a lack of formal training and experience. Because doctoral education is the mechanism by which role learning begins, it is important that doctoral students be exposed to some degree of teaching. In fact, faculty advisers and mentors are encouraged to guide students regarding all aspects of the faculty role, ensuring they gain experiences in teaching as well as advising and providing service to the university.[11]

Teaching experiences, especially in athletic training, are paramount because a large number of faculty positions require teaching responsibilities and research is secondary. Many athletic training programs are housed in teaching-focused institutions,[39] which may not expect the higher level of research productivity that is typical with research-intensive universities. Regardless of the type of institution

and the positions athletic training faculty members will assume, they will be expected to teach courses, likely within a CAATE-accredited program. Despite this expectation, there has been a longstanding question of whether doctorally trained ATs are prepared to teach, despite the need for this skillset.[40] Craig[41] suggested that doctoral degrees do not translate to competence as educators, as very little training in pedagogy occurs formally. We found that athletic training doctoral students had much more informal exposure to teaching than formal pedagogy training. Our results speak directly to this deficiency in actual pedagogy training, thereby highlighting the fact that completion of the doctoral degree may not signify competence in faculty roles beyond research. It is also interesting to note that, although few participants pursued or were required to take pedagogy classes, most students planned to focus their efforts after graduation on teaching in athletic training programs in addition to or independent of conducting research. Furthermore, participants acknowledged the limitations to practical teaching experiences without authentic preparation in how to teach. Perhaps it is necessary to provide doctoral students with a broader, more structured, and well-rounded experience that equips them with the necessary knowledge (including pedagogy training), guides them in career options, and provides them with mentored experiences that allow them to apply developing skillsets autonomously[22] in diverse academic settings.[42]

Service: Limited Formal Experience Leads to Incomplete Role Understanding

Overall, the participants did not have strong feelings of readiness to take on service responsibilities. Some believed they could meet these expectations because they had high aptitude, even though they did not have much experience, and they had an incomplete understanding of what service responsibility entailed for success in the professoriate. It is not surprising that the students lacked robust experiences in service due to the fact that the majority were being trained at research institutions where the faculty tenure expectations most likely focus on scholarship and, to a lesser degree, teaching or service. It is interesting that participants had different thoughts on what service would be or which activities would be considered service when they entered the professoriate. We chose not to define *service* for participants when conducting the interviews as we wanted to learn which activities they thought would prepare them for the activities they considered service.

Academic life for faculty members must balance scholarship, teaching, service, and at times administration, yet it appears as though, in some cases, the service aspect can be viewed as an insignificant concern. When asked to describe specific experiences that influenced their readiness to take on service responsibilities in higher education, only 1 participant identified modeling by a faculty member. This indicates a need for faculty who are supervising doctoral students to communicate the importance of service to the institution and profession as well as to facilitate opportunities to engage in service activities as part of the doctoral education process. Although some of our participants acknowledged service as a priority in the future, more frequently doctoral students either identified service as something in which they occasionally engaged or admitted

they had never really thought about it. Our participants were overwhelmingly unsure of service obligations as 32.1% (n = 9) were not satisfied with the way in which their doctoral program prepared them to provide service to their institution or profession, compared with 28.6% who were satisfied.

Administration: Lack of Direct Exposure to Common Responsibilities

Common administrative duties for athletic training faculty members include recruitment and retention processes, curriculum planning and implementation, clinical education placements, and other accreditation duties.[43–45] The ability to fulfill athletic training faculty roles, particularly those that include programmatic oversight, is a desired skillset.[43] Formalized training is likely beneficial[7] as transitioning to the role of program director can be challenging because of the nuances associated with maintaining and keeping up to date with complex accreditation standards and requirements.[46] In addition, ATs who transition into program director faculty roles are often not fully prepared to handle the expectations that encompass these roles because they lack experience with leadership and administration.[16,47] In terms of planned administrative experiences, most doctoral students lacked authentic or real-world practice with typical athletic training faculty administrative duties similar to those they will likely face upon assuming future faculty roles. Students suggested, however, that they could successfully transition into a given role organically by assuming the responsibilities without any formal learning. Many athletic training educators, especially those serving in the program director role, did not have formal training but rather rely heavily on self-directed learning (learning by doing)[46] and by seeking advice from support networks,[6] such as colleagues in similar roles. These experiences reflect the framework of informal socialization[6,7,48,49] but may not be adequate; transition can be challenging due to limited experiences, the time needed to balance administrative duties with other expectations, or both.[43,44,46]

Although doctoral students have some obligation and responsibility to actively seek awareness regarding their future roles (anticipatory socialization) as well as secure opportunities to expand the scope of their experiential learning undertakings,[50] faculty advisers and mentors also have a responsibility to educate their students on the complexity associated with their roles within higher education. In other words, faculty mentors must extend opportunities to doctoral students that allow them to actively and autonomously engage in a wide range of experiences such as student mentoring, advising research projects, committee work, and accreditation processes, as well as other service activities and administrative responsibilities. Ultimately, these experiences will aid in role transition for the student, especially if the mentor encourages the student to reflect on the experiences selected and how such experiences support or expand upon other career goals the student plans to pursue. Drawing upon the concepts of experiential learning and involvement theory, doctoral students assimilate and more successfully transition into professional roles if they are offered the chance to engage in professional or organizational activities relevant to their selected fields.[51–53]

Limitations and Future Directions

Our study provides insights into the professional development of ATs engaged in doctoral programs. We do, however, recognize some limitations. First, although our robust sample of doctoral students came from a diverse set of educational institutions, a common restriction of qualitative research is a limited ability to generalize to broad populations. We also recognize that our participants held a variety of assistantship positions while completing their doctoral studies, which allowed for more formal, planned socialization. However, some doctoral candidates may select a more nontraditional route to their degrees and eventual entrance into higher education; thus, we can only speak to the experiences of those ATs who received tuition waivers and stipends to complete their degrees and had direct, daily contact with their mentors and advisers. In the future, it may be important to compare the experiences and level of preparedness of those engaged in specific roles (ie, patient care versus TA, degree type such as PhD, doctor of education [EdD], and doctor of athletic training [DAT]). Specifically, it remains unknown if athletic training faculty members with an educational doctorate are more prepared for teaching and administrative roles. Educational doctorates provide more formal training for roles that expect teaching and administration in conjunction with some research, whereas PhD programs are typically geared toward development of research skills.[54,55] Therefore, student experiences and levels of preparation are likely different between graduates of PhD and EdD programs.

Furthermore, we did not ask specific interview questions relative to the participants' backgrounds. We recognize that experiences prior to doctoral preparation likely affected how participants perceived their knowledge of and comfort with taking on future faculty roles related to research, teaching, service, and administrative duties. The data presented in our study were from the perspectives of the students themselves, and we did not triangulate the findings through the opinions of others, such as their doctoral advisers or future employers. Future researchers should explore multiple perspectives as a means to fully capture the socialization process for doctoral students.

Future investigators should address students taking different routes to earn their doctorates and different terminal degree types. For example, it remains unknown how the socialization process unfolds for those who continue working instead of taking an assistantship. The socialization process may also be different for those seeking EdD degrees or DAT degrees. In addition, doctoral students' transition into higher education and the effect of their training on their ability to successfully navigate career expectations is also unknown. It would be interesting to examine the experiences of junior faculty members as they work toward tenure and promotion. Perhaps professional socialization provides the support for success as faculty members. In addition, gaining insights from faculty who advise and mentor doctoral students would help provide a fuller understanding of doctoral student socialization.

CONCLUSIONS

Athletic training doctoral experiences are critical to role understanding and ultimately socialization as future faculty members. Our participants gained role occupation with research, held TA positions or taught independently, completed committee work, and gained some experience with administrative tasks to learn the expectations of future faculty positions. However, constraints in full role understanding stemmed primarily from a lack of formal preparation in teaching, a lack of understanding regarding service expectations, and an absence of experiences with administrative responsibilities commonly associated with athletic training faculty roles. We suggest providing ATs pursuing doctoral degrees with experiences in all aspects of the expectations of potential athletic training faculty positions to give them a robust understanding of the professoriate. Furthermore, mentors and program administrators must recognize the critical importance of doctoral preparation and intentionally plan diverse experiences that include authentic opportunities for doctoral students to develop in areas of teaching, service, and program administration, in addition to research, in order to facilitate comprehensive role understanding.

REFERENCES

1. Dyess SM, Sherman RO. The first year of practice: new graduate nurses' transition and learning needs. *J Contin Educ Nurs*. 2009;40(9):403–410.
2. Scott ES, Smith SD. Group mentoring: a transition-to-work strategy. *J Nurses Staff Dev*. 2008;24(5):232–238.
3. Klossner J. The role of legitimation in the professional socialization of second-year undergraduate athletic training students. *J Athl Train*. 2008;43(4):379–385.
4. Mazerolle SM, Bowman TG, Dodge TM. The professional socialization of the athletic trainer serving as a preceptor. *J Athl Train*. 2014;49(1):75–82.
5. Benes SS, Mazerolle SM. Factors influencing athletic training students' perceptions of the athletic training profession and career choice. *Athl Train Educ J*. 2014;9(3):104–112.
6. Pitney WA. Professional socialization of certified athletic trainers in high school settings: a grounded theory investigation. *J Athl Train*. 2002;37(3):286–292.
7. Pitney WA, Ilsley P, Rintala J. The professional socialization of certified athletic trainers in the National Collegiate Athletic Association Division I context. *J Athl Train*. 2002;37(1):63–70.
8. 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.
9. Mensch J, Crews C, Mitchell M. Competing perspectives during organizational socialization on the role of certified athletic trainers in high school settings. *J Athl Train*. 2005;40(4):333–340.
10. Pitney WA. Organizational influences and quality of life issues during the professional socialization of certified athletic trainers working in the National Collegiate Athletic Association Division I setting. *J Athl Train*. 2006;41(2):189–195.
11. Austin AE. Preparing the next generation of faculty: graduate school as socialization to the academic career. *J High Educ*. 2002;73(1):94–122.
12. Fraenkel JR, Wallen NE. *How to Design and Evaluate Research in Education*. 3rd ed. New York, NY: McGraw-Hill; 1996.
13. Hertel J, West TF, Buckley WE, Denegar CR. Educational history, employment characteristics, and desired competencies of doctoral-educated athletic trainers. *J Athl Train*. 2001;36(1):49–56.
14. Golde CM. Preparing stewards of the discipline. In: Golde CM, Walker GE, eds. *Envisioning the Future of Doctoral Education: Preparing Stewards of the Discipline: Carnegie Essays on the Doctorate*. San Francisco, CA: Jossey-Bass; 2006:3–20.
15. Smith KS, Kalivoda PL. Academic morphing: teaching assistant to faculty member. In: Kaplan M, ed. *To Improve the Academy*. Vol 17. Stillwater, OK: New Forums Press and the Professional and Organizational Development Network in Higher Education; 1998:85–102.
16. Dewald L, Walsh K. Tenure track athletic training educators: are they being set up to fail? *Athl Train Educ J*. 2009;4(4):144–149.
17. Klossner JC, Mazerolle SM, Bowman TG. Exploring barriers to the successful socialization of athletic training doctoral students into future faculty roles [abstract]. *J Athl Train*. 2015;50(suppl 6):S-208.
18. Walter JM, Van Lunen BL, Walker SE, Ismaeli ZC, Oñate JA. An assessment of burnout in undergraduate athletic training education program directors. *J Athl Train*. 2009;44(2):190–196.
19. Angstadt CN, Nieman LZ, Morahan PS. Strategies to expand the definition of scholarship for the health professions. *J Allied Health*. 1998;27(3):157–161.
20. Weidman JC, Twale DJ, Stein EL. *Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage*. San Francisco, CA: Jossey-Bass; 2001.
21. Weidman JC, Stein EL. Socialization of doctoral students to academic norms. *Res High Educ*. 2003;44(6):641–656.
22. Koblinsky SA, Hrapczynski KM, Clark JE. Preparing future faculty and professionals for public health careers. *Am J Public Health*. 2015;105(suppl 1):S125–S131.
23. AT Strategic Alliance. Strategic alliance degree statement, May 20, 2015. AT Strategic Alliance Web site. http://atstrategicalliance.org/strategic-alliance-degree-statement. Accessed June 9, 2017.
24. Brumels K, Beach A. Professional role complexity and job satisfaction of collegiate certified athletic trainers. *J Athl Train*. 2008;43(4):373–378.
25. Pitney WA, Parker J. *Qualitative Research in Physical Activity and the Health Professions*. Champaign, IL: Human Kinetics; 2009.
26. National Athletic Trainers' Association. Doctoral programs. National Athletic Trainers' Association Web site. http://www.nata.org/about/athletic-training/education-overview. Accessed June 9, 2017.
27. Thomas DR. A general inductive approach for qualitative data analysis. *Am J Eval*. 2006;27(2):237–246.
28. Strauss AL, Corbin JM. *Basics of Qualitative Research*. Newbury Park, CA: SAGE Publications; 1990.
29. Creswell JW. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. 2nd ed. Columbus, OH: Merrill Prentice Hall; 2005.
30. Palmer MS, Little D. Tomorrow's professor today: tracking perceptions of preparation for future faculty competencies. In: Groccia JE, Cruz L, eds. *To Improve the Academy: Resources for Faculty, Instructional, and Organizational Development*. Vol 32. San Francisco, CA: Jossey Bass; 2013.
31. Mazerolle SM, Clines S, Eason CM, Pitney WA. Perceptions of support networks during the graduate-assistant athletic trainer experience. *J Athl Train*. 2015;50(12):1256–1266.
32. Starkey C, Ingersoll CD. Scholarly productivity of athletic training faculty members. *J Athl Train*. 2001;36(2):156–159.
33. Knight KL, Ingersoll CD. Developing scholarship in athletic training. *J Athl Train*. 1998;33(3):271–274.
34. Nyquist JD, Wulff DH. Recognizing and adapting to stages of graduate teaching assistants' and graduate research assistants' development. *Working Effectively With Graduate Assistants*. Thousand Oaks, CA: SAGE Publications; 1996.
35. Straus SE, Johnson MO, Marquez C, Feldman MD. Characteristics of successful and failed mentoring relationships: a qualitative study across two academic health centers. *Acad Med*. 2013;88(1):82–89.
36. Mazerolle SM, Barrett JL, Nottingham SL. Examining the factors that facilitate athletic training faculty socialization into higher education. *J Athl Train*. 2016;11(4):208–218.

37. Bandura A, Schunk DH. Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *J Pers Soc Psychol*. 1981;41(3):586–598.

38. Margolis H, McCabe PP. Improving self-efficacy and motivation: what to do, what to say. *Interv Sch Clin*. 2006;41(4):218–227.

39. 2014–2015 CAATE analytic report. Commission on Accreditation of Athletic Training Education Web site. http://caate.net/wp-content/uploads/2016/06/2015-CAATE-Analytic-Report_VF-.pdf. Accessed July 22, 2016.

40. Berry DC. How well do we know how to teach? *Athl Train Educ J*. 2010;5(1):38–39.

41. Craig DI. Athletic training instructors: a needs assessment of teaching methodology knowledge and self-perceived competence. *Athl Train Educ J*. 2006;1(2):28–37.

42. DeNeef AL. *The Preparing Future Faculty Program: What Difference Does It Make? PFF Occasional Paper Series*. Washington, DC: Association of American Colleges and Universities; 2002.

43. Judd MR, Perkins SA. Athletic training education program directors' perceptions on job selection, satisfaction, and attrition. *J Athl Train*. 2004;39(2):185–192.

44. Peer KS, Schlabach GA. Professional values in athletic training: building tomorrow's leaders. *Athl Ther Today*. 2009;14(5):35–39.

45. Herzog VW, Zimmerman EP. Transformational leadership and building relationships with clinical instructors. *Athl Ther Today*. 2009;14(3):39–41.

46. Viesselman C. *The Socialization of First-Time Athletic Training Education Program Directors [dissertation]*. Boston, MA: Northeastern University; 2013.

47. Leone JE, Judd MR, Colandreo RM. Descriptive qualities of athletic training education program directors. *Athl Train Educ J*. 2008;3(2):43–49.

48. Smith AB, Stewart GA. A statewide survey of new department chairs: their experiences and needs in learning their roles. *New Direct Community Coll*. 1999;105:29–36.

49. Mazerolle SM, Eason CM, Clines S, Pitney WA. The professional socialization of the graduate assistant athletic trainer. *J Athl Train*. 2015;50(5):532–541.

50. Helm M, Campa H III, Moretto K. Professional socialization for the PhD: an exploration of career and professional development preparedness and readiness for PhD candidates. *J Fac Dev*. 2012;26(2):5–23.

51. Anderson B, Cutright M, Anderson S. Academic involvement in doctoral education: predictive value of faculty mentorship and intellectual community on doctoral education outcomes. *Int J Doctor Stud*. 2013;8:195–201.

52. Gardner SK, Hayes MT, Neider XN. The dispositions and skills of a PhD in education: perspectives of faculty and graduate students in one college of education. *Innov High Educ*. 2007;31(5):287–299.

53. Astin AW. Student involvement: a developmental theory for higher education. *J Coll Stud Personnel*. 1984;25(4):297–308.

54. Education degree: what is the difference between EdD and PhD education? Educational Degree Web site. http://www.educationdegree.com/articles/edd-and-phd-differences. Accessed July 22, 2016.

55. EdD vs. PhD Degrees. Teach: Make a Difference Web site. https://teach.com/how-to-become-a-teacher/teacher-education/doctorate-in-education-edd/edd-vs-phd-degrees/. Accessed July 22, 2016.

Address correspondence to Thomas G. Bowman, PhD, ATC, Lynchburg College, Turner Gymnasium, 1501 Lakeside Drive, Lynchburg, VA 24501. Address e-mail to bowman.t@lynchburg.edu.