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# Perceptions of Support Networks During the Graduate-Assistant Athletic Trainer Experience

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**Context:** The graduate-assistant position can be a highly influential experience because it is often the first time novice athletic trainers (ATs) are practicing autonomously.

**Objective:** To gain an understanding of how graduate-assistant ATs (GAATs) perceive professional socialization and mentorship during their assistantships.

**Design:** Semistructured phone interviews.

**Setting:** Graduate-assistant ATs in various clinical settings.

**Patients or Other Participants:** Twenty-five GAATs (20 women, 5 men) studying in 1 of 3 academic tracks (postprofessional athletic training = 8, athletic training-based curriculum = 11, non-athletic training-based curriculum = 6). Median age was 24 years.

**Data Collection and Analysis:** Phone interviews were digitally recorded and transcribed verbatim. Data analysis used principles of the general inductive approach. Credibility was maintained using peer review, field notes, and intercoder reliability.

**Results:** Participants identified peer support throughout their experiences, in both academic and clinical settings. The GAATs frequently relied on other GAATs for support due to

shared experiences and understanding of workloads. Participants described difficulty receiving supervisor support from full-time staff ATs due to the supervisors' workload and time constraints, limiting their availability for mentoring. Guidance from academic support personnel occurred only in athletic training-centered academic programs. Communication emerged as helpful for incoming GAATs; the previous GAATs provided formal mentorship via job descriptions highlighting role responsibilities and expectations. Differences between assistantship types were noted only in terms of receiving balanced mentorship between the academic and clinical staffs, such that students studying in postprofessional athletic training programs perceived more balanced support.

**Conclusions:** Our results confirm the literature regarding the GAAT's pursuit of continued formal mentoring. The GAATs perceived less support from full-time AT staff members due to limited availability. Therefore, GAATs leaned on their peers for support during the graduate experience.

**Key Words:** mentorship, peer support, support networks

## Key Points

- Graduate-assistant athletic trainers sought opportunities to be mentored during their experiences in the role.
- Peer mentoring provided graduate-assistant athletic trainers with the support needed during the transition to autonomous practitioners.
- Communication with second-year graduate-assistants provided role orientation for the first-year graduate-assistant athletic trainers.

The graduate-assistantship position is unique in that certified athletic trainers (ATs) are required to serve concurrently as health care providers, students, and in some cases as preceptors. Balancing each of these responsibilities and the duties associated with each role individually can pose a challenge to this novice class of ATs. For most graduate-assistant ATs (GAATs), this position serves as the first independent work experience as an AT. The role is often viewed as a rite of passage to the entry-level position of the AT and is the next stage in the professional socialization process of assuming the AT role.<sup>1</sup> As a result, the graduate-assistantship experience may significantly influence professional commitment and retention in the field.<sup>2</sup> This can be surmised as many newly credentialed ATs look for experiences that allow them to pursue professional development,<sup>1</sup> and often during the socialization process, individuals can be indoctrinated into

their future roles,<sup>1</sup> which could stimulate interest in their career.

The professional socialization process is a complex educational experience whereby one learns the norms, knowledge, skills, values, and roles of a given profession.<sup>3</sup> Socializing agents include mentors, clinical instructors, academic faculty, and peers.<sup>4</sup> The process of socialization is typically divided into 2 stages: the anticipatory phase and the organizational phase.<sup>1</sup> The *anticipatory phase* is identified with the theoretical aspect of the profession, when one envisions the role he or she would like to assume,<sup>5</sup> and is classified by exposure to the profession before entering the work setting in a full-time capacity.<sup>1,4,6–8</sup> This phase includes formal education and professional preparation, such as an apprenticeship or clinical training, much like the clinical education experiences of an AT or newly credentialed AT in an assistantship position.<sup>9</sup> The *organizational phase* is the

**Table 1. Academic Programs Available to Graduate-Assistant Athletic Trainers**

Academic Program	Description
Postprofessional athletic training program	Accredited by the Commission on Accreditation of Athletic Training Education and characterized by a curriculum that emphasizes advanced knowledge and skill development in the field of athletic training
Athletic training-based curriculum program	Core curriculum offers courses that advance the knowledge and skill set of a graduate-assistant athletic trainer beyond those learned in the entry-level program; not accredited by any agency
Non-athletic training-based curriculum program	Core curriculum of the academic plan of study is not athletic training based

practical component: the individual enters and engages in the profession, thus assuming the roles associated with that given field. Organizational socialization is often ongoing but is a process that occurs once the individual has gained enough knowledge, skills, or credentialing.<sup>4</sup> The GAAT position provides a unique opportunity to blend the anticipatory and organizational stages of the professional socialization process; the ATs are formally engaged in clinical practice yet are still enrolled in academic degree programs that are possibly building upon their knowledge base. This merger of stages is a valuable opportunity to gain organizational training as a certified clinician. This experience builds upon those experiences gained as a noncertified student. Moreover, assuming the GAAT role appears attractive to the newly credentialed AT, as it provides the chance for continued mentorship, a fundamental component of the socialization process.<sup>10–12</sup>

In the research available on the professional socialization process,<sup>1,13</sup> the effect of mentorship on GAATs is lacking. Mentorship has been identified as a significant factor that can influence the personal and professional development of a young adult.<sup>14</sup> A *mentor* is defined as a senior member of a group who intentionally encourages and supports younger colleagues in their careers.<sup>14</sup> Mentorship is a developmental process based on a relationship between a mentor and a protégé.<sup>15</sup> The literature<sup>16,17</sup> has categorized the mentoring process in 4 phases. The 4 phases of mentorship as identified by Kram<sup>16</sup> are (1) initiation, (2) cultivation, (3) separation, and (4) redefinition. The *initiation phase* begins the relationship, with either the protégé seeking guidance from a senior member of a particular group or the senior member selecting a protégé. The *cultivation phase* centers on career functions and psychosocial functions. The *separation phase* is characterized as an adjustment period in which the protégé seeks to gain autonomy and independence. At this stage, both parties acknowledge that the relationship no longer needs to serve a developmental purpose and that the terms of the relationship must evolve. The final phase, *redefinition*, occurs as the relationship transforms into a lasting friendship in which the 2 parties become peers.<sup>16</sup>

We know that the desire to complete a graduate-assistantship is frequently influenced by the appeal of an opportunity to enhance clinical development while receiving professional support.<sup>13,18</sup> In the context of athletic training, positive mentorship has been associated with increased student engagement and retention in the profession.<sup>13</sup> Although mentorship has been suggested to play a key role in the athletic training student's decision to choose a graduate program,<sup>13</sup> researchers have not examined whether mentorship continues once these students begin their graduate-assistantships. Mentors have also been

identified as prime agents in facilitating the professional socialization process.<sup>4</sup> Pitney et al<sup>1</sup> emphasized the importance of professional socialization in the assumption of the role of a National Collegiate Athletic Association Division I AT. They also found that the GAAT position was strongly viewed as a prerequisite for professional advancement by ATs, especially in the collegiate setting. However, they did not identify GAATs' perceptions of the socialization process during this time.

The selection of a graduate-assistantship is also affected by the academic desires of the AT. The AT can select from 3 academic options: postprofessional athletic training (PPAT) program, athletic training-based curriculum (ATBC) program, or non-athletic training-based curriculum (NATBC) program. The PPAT program is classified as a graduate program accredited by the Commission on Accreditation of Athletic Training Education (CAATE), the body that develops, promotes, and maintains the quality education standards of professional and PPAT programs. The curricula of PPAT programs emphasize advanced knowledge and skill development in athletic training.<sup>19</sup> Similar to the goals of the PPAT program, ATBC programs also offer courses that advance the knowledge and skillset of a GAAT beyond those learned in the entry-level program. The ATBC programs vary from PPAT programs in that the former offer advanced athletic training educational curriculums but are not accredited by CAATE. In NATBC programs, the core curriculum of the academic plan of study is not based on athletic training and, therefore, does not focus on advancing athletic training skills beyond the entry level. A comparison of these academic programs is in Table 1. According to the CAATE Web site,<sup>20</sup> there are 16 PPAT programs, which are greatly outnumbered by the other academic options available to potential GAATs.

Transition to practice has been identified as a focal point for the future of the athletic training profession by the National Athletic Trainers' Association Executive Committee for Education.<sup>21</sup> Graduate-assistant ATs represent the future of the athletic training profession, as they are most often the newest members of the field. They are attracted to the graduate-assistant role because it provides the chance to gain autonomous practice yet permits mentorship by more seasoned ATs.<sup>13,22</sup> The chance to become more confident in the decision-making process is attractive, and the mentoring provides reassurance and support for continued growth as health care providers.<sup>13</sup> As transition to practice continues to be a focal point for athletic training education, gaining more knowledge about the mentoring experienced by GAATs is necessary, particularly as data support the existence of mentorship during professional development. Additionally, GAATs desire a supportive work environment facilitated by

their supervisors,<sup>18</sup> but further investigation is needed to determine if GAATs perceive this type of work environment as existing during their appointments. The data presented in this paper are part of a larger study with the global purpose of gaining an appreciation for the experiences of GAATs. This article will focus on professional socialization and mentorship as perceived by the GAAT. The following research questions guided this study:

1. How do GAATs perceive the level of mentorship they receive from their academic and clinical supervisors during their graduate-assistantship?
2. Is there a difference in perceived mentorship and support networks between graduate-assistants in athletic training versus nonathletic training programs?

## METHODS

### Research Design

For this study, we used qualitative methods to investigate the experiences of GAATs, specifically regarding the professional socialization and mentorship they received. Seidman<sup>23</sup> suggested using a qualitative paradigm when the main objective was to understand a particular experience from a person who has lived it. In this investigation, we were concerned with learning more about GAATs' perceptions of the support they received through a mentoring relationship. *Mentoring* was operationally defined as "a relationship between 2 people, in which trust and respect enables [sic] problems and difficulties to be discussed in an open and supportive environment."<sup>24</sup>

One-on-one, in-depth phone interviews were conducted with all participants. This method was selected because it was the best medium to allow the GAATs to describe and elaborate on their experiences with individuals who share similar social characteristics, such as fellow GAATs.<sup>23</sup> In this paper, we present the data that represent GAATs' experiences with mentorship. We discuss the findings related to professional socialization independently.<sup>11</sup>

### Participant Selection

To obtain a sample that represented all 10 National Athletic Trainers' Association districts, we attempted to recruit at least 1 participant per district. We were able to recruit from 8 of the 10 districts. Participants were recruited purposefully via direct recruitment or through indirect recruitment by communicating with program directors of PPAT, ATBC, or NATBC programs employing graduate-assistants. Participants received an e-mail either directly from the researchers or forwarded from their program director containing an informational form explaining the purpose and data-collection procedures for the study. The GAATs who received e-mails matched the following inclusion criteria: (1) enrollment in a CAATE-accredited PPAT program, ATBC program, or NATBC degree program, (2) Board of Certification-certified AT, (3) in their final semester of study and graduating at the end of the semester, and (4) had a possible interest in participating. Interested volunteers directly contacted the researchers to initiate consent and data collection.

## Participants

A total of 101 GAATs were identified as potential participants. Data saturation guided participant recruitment. Constant comparative analysis was used, and data saturation was achieved after the 25th interview. The participant pool consisted of 20 women and 5 men. The average age was  $25.1 \pm 4.6$  years, with the median age being 24 years. Participant ages ranged between 23 and 47 years. Individual participant demographics are shown in Table 2. All participants studied in academic programs at universities sponsoring Division I athletic programs with clinical assignments ranging from Division I, Division II, and junior college intercollegiate athletics; high school outreach; boarding schools; research and teaching positions; and nontraditional settings. The average length of certification for participants was  $2.1 \pm 0.4$  years. Academic majors included athletic training, exercise science, sports management, medical science, tourism administration, health promotion, public administration, and physical education. Degree requirements varied by academic program and included a master's thesis, comprehensive examinations, or a research project (or a combination of these).

## Data-Collection Procedures

Institutional review board approval was obtained before recruitment and data collection. The interview protocol was divided into 2 sections: basic demographic information (age, years of experience, etc) and open-ended questions regarding the GAAT's experiences. The interview guide was developed by a 3-member research team consisting of a faculty supervisor, doctoral student, and master's student. The guide, which was semistructured in nature, was based on the existing literature regarding socialization and job satisfaction.<sup>13</sup> A peer review was completed by an independent seasoned qualitative researcher with a strong knowledge of the professional socialization literature. The peer provided feedback on instrumentation, ensured accuracy with questioning and logical flow to the line of questioning, and reduced any potential bias with the questions. Minor changes were made to the interview guide to correct question sequencing and word choice. The semistructured interview guide used in this study is provided in Table 3. All participants consented via a signed form before data collection. All phone interviews were digitally recorded with the consent of the participant and transcribed verbatim by a professional transcription service. Two researchers (S.C., C.M.E.) conducted the phone interviews, with 1 member leading the interview and the second handwriting field notes.

## Data Analysis

Data analysis was qualitative in nature and was ongoing to evaluate and compare interviewee responses as a means of organizing them into systematic codes. For analyst triangulation, the content of the interviews was first independently reviewed by the researchers to identify concepts related to the research purpose and questions. These concepts were then coded with a conceptual label to capture their meaning. The conceptual labels, or codes, collected from the transcripts were examined and organized

**Table 2. Participant Demographics**

Program Type	Pseudonym	Sex	Age, y (mean = 25.1)	Years Certified (mean = 2.1)	National Athletic Trainers' Association District	Clinical Setting	Academic Major	Thesis Requirement
Postprofessional athletic training	Abby	Female	25	2	4	Division I	Athletic training	Nonthesis
	Alysha	Female	26	2	7	Junior college	Athletic training	Thesis
	Carl	Male	24	2	3	Division I	Athletic training	Thesis
	Erin	Female	24	2	4	Division I	Athletic training	Thesis
	Jennie	Female	26	4	3	Division I	Athletic training	Thesis
	Jill	Female	25	2	4	Division I	Athletic training	Thesis
	Lisa	Female	24	2	4	Division I	Athletic training	Thesis
	Mia	Female	24	2	4	Division I	Athletic training	Thesis
Athletic training-based curriculum	Alexa	Female	24	2	1	Division I	Exercise science	Thesis
	Brianna	Female	24	2	2	High school	Exercise science	Thesis
	Camille	Female	23	2	3	High school	Athletic training	Nonthesis
	Carrie	Female	24	2	8	Division I	Athletic training	Thesis
	Erica	Female	24	2	1	Middle school	Exercise science	Thesis
	Jackie	Female	24	2	2	Division I	Exercise science	Thesis
	Jason	Male	47	2	3	Division I	Athletic training	Nonthesis
	Jessica	Female	23	2	9	Division I	Medical science	Nonthesis
	Matt	Male	25	2	9	Research assistant/ teaching assistant	Exercise science	Thesis
		Paige	Female	24	2	3	High school	Athletic training
	Randi	Female	23	2	1	High school	Exercise science	Thesis
Non-athletic training-based curriculum	Adam	Male	26	2	9	Division II	Physical education	Nonthesis
	Claire	Female	23	2	5	Division I	Health promotion	Nonthesis
	Emma	Female	24	2	3	Division I	Tourism administration	Nonthesis
	Griffin	Male	24	2	5	Division I	Health promotion	Nonthesis
	Mackenzie	Female	24	2	5	Division I	Public administration	Thesis
	Tara	Female	24	2	5	Division I	Sport management	Nonthesis

into themes. The emergent themes were analyzed to compose higher-order and lower-order themes used to explain the professional socialization and mentorship experience as perceived by GAATs.<sup>23,25</sup> Discrepancies in interpretation were settled by our peer reviewer, who either confirmed or negated the interpretation of the theme. To establish a theme, 50% of our participants needed to be categorized within the code. Because we were interested in determining experiences across assistantship type, we also used the process of *enumeration*, a common technique used in qualitative research to quantify findings as a means to present them across groups.<sup>25,26</sup>

### Data Credibility

We used 3 main strategies to secure data credibility: (1) peer review, (2) field notes, and (3) intercoder reliability.<sup>27</sup> First, a peer review was conducted before data collection and after data analysis. Second, during the phone interview process, 1 researcher wrote field notes to capture key points raised. The notes assisted in the analysis as a means to identify emergent, dominant themes. Third, intercoder reliability consisted of 2 members (S.M.M., S.C.) of the research team coding the data independently following the steps illustrated previously. Upon completion of the independent coding, the researchers compared findings and came to an agreement before sharing the final results with the peer for review.<sup>23</sup>

## RESULTS

After completing our general inductive analysis, we uncovered 3 main themes from the data: (1) peer support, (2) supervisor support, and (3) academic personnel support. Peer support was further categorized into informal and formal peer support. Supervisor support was reported in the clinical setting and was influenced by the availability of the supervisor. Academic personnel support refers to support networks in the academic component of the GAAT experience. The Figure illustrates the support networks experienced by the GAATs. We present these findings in the next section with supporting textual data from our participants.

### Peer Support

Participants identified a strong sense of peer support throughout their experiences, in both the academic and clinical settings. Peer support occurs when a GAAT provides or receives knowledge experiences or emotional or social assistance from a fellow GAAT. Of the 25 GAATs interviewed, 21 (84%) identified peer support as a key component of their support networks, regardless of academic program type or clinical assignment. Participants also described support from fellow GAATs as the most significant source of support overall during their experience. Erin, a PPAT program GAAT reflected on her support networks, specifically regarding her clinical experience: “I primarily relied on the past [graduate-assistant for sup-

**Table 3. Semistructured Interview Guide**

Interview Questions

1. What process went into your decision making and final selection of your graduate-assistant AT position?<sup>a</sup>  
Probe: Who influenced your decision? What resources did you use?
2. How would you describe the relationship between your academic and clinical work?
3. How did you learn about the expectations of your graduate-assistant AT position?
4. Do you feel your position was accurately presented to you during your interview/tour, etc?
5. Can you describe the relationships between your peers, mentors, and faculty during your educational and clinical experience?<sup>a</sup>  
Probe: Do you feel you had a strong support network during your assistantship? Explain.  
Probe: Who provided support?
6. What are the positive aspects of your position?
7. What are the negative aspects of your position?
8. If you had the opportunity, what, if anything, would you change about your graduate student and/or assistantship experience?
9. What, if anything, could have better prepared you for the role of the graduate-assistant AT?
10. What are your current career goals?  
Probe: Over the next 5 years  
Probe: In 10 years
11. Reflect back to when you were applying to graduate schools/graduate-assistant AT positions.  
What were your professional goals/objectives?
12. Have your career goals been influenced from your experiences as a graduate-assistant AT?
13. Did your career goals/objectives ever change/waiver during your assistantship?  
If they have changed, what do you feel influenced the change?  
If no change, were there any factors that reassured your career objective(s)?
14. If you could pick your graduate-assistant AT experience again, would you make the same choice? Explain.
15. Would you recommend your position to another graduate-assistant AT candidate? Explain.
16. What advice would you give a new graduate-assistant AT?<sup>a</sup>
17. What advice would you give the incoming graduate-assistant AT taking your spot?<sup>a</sup>

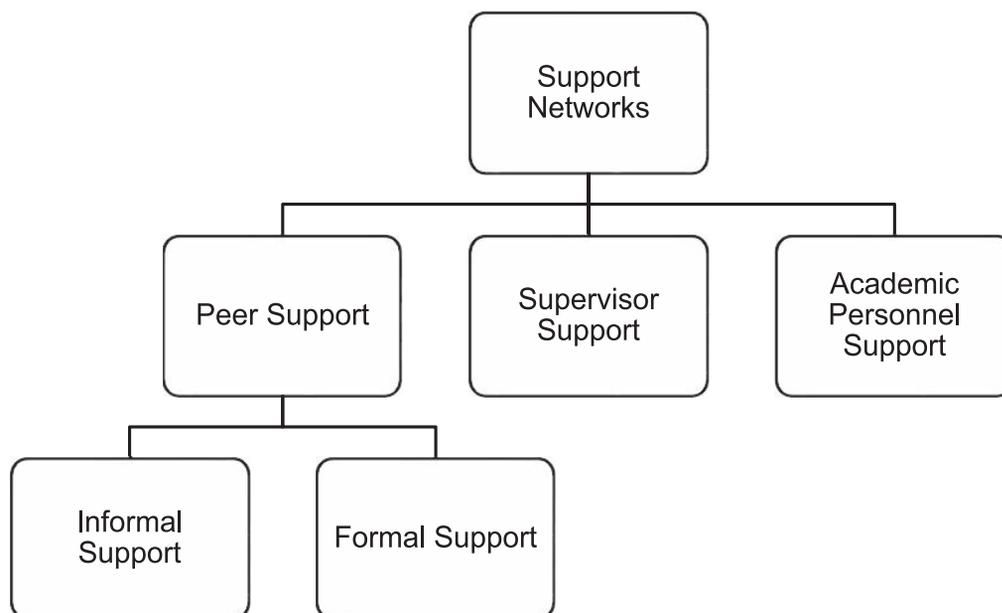
Abbreviation: AT, athletic trainer.

<sup>a</sup> Indicates question that guided the discussion about support.

port].” Carl, a GAAT in an ATBC program, confirmed the general experience of peer support by saying, “My classmates. . . I absolutely love my classmates. They were a very big source of support going through the program.” Abby, a GAAT studying in an NATBC program, also relied on other GAATs to provide the majority of her support: “The support that I got was definitely from my friends [other GAATs] that were having the same frustrations as I was.”

Our participants frequently called on other GAATs for support due to shared experiences and understanding of workloads. An appreciation for the role of the GAAT provided a foundation for providing support. Randi, an ATBC program GAAT, discussed the benefit of having a peer network to share similar experiences in the high school clinical setting:

As far as peers, at least it’s people that were going through the same thing at the high school. . . you’re



**Figure. Support networks perceived by the graduate-assistant athletic trainers.**

both recently graduated, you're both taking on a high school, and you're both dealing with the same things. That was great.

Graduate-assistant ATs identified peer support as the predominant form of support during their experiences. Peer support was facilitated by the mutual understanding and appreciation of the role of the GAAT. Our analysis revealed that peer support occurred regardless of academic program type or clinical setting.

**Informal Support.** Informal support was classified by casual interactions and impromptu discussions between GAATs. The interactions were viewed as a collaborative effort, whereby GAATs cooperated to assist a fellow GAAT in the learning process. Jennie highlighted this in discussing the GAAT relationship she experienced during the clinical component of her position in a PPAT program:

There is a second year and first year, and so all of us work with the class above and below us clinically. Clinically, for my classmates, we just use each other as resources if we have questions or just need more ideas, and even mentally, we help each other a lot.

Mia, another PPAT student, described the benefits of informal support among her peers:

The relationships between my peers are good. We are all able to bounce ideas off of each other just because some of us are placed in high schools, where they have limited resources, and others of us are placed in [intercollegiate] athletics, where more resources are available. So we're able to kind of really hear what some that don't have many resources are going through or ideas they came up with.

Although it is not common to have multiple GAATs assigned to the same high school, Paige, an ATBC student, appreciated the presence and informal support of a peer in the high school setting. When discussing her experiences and the process of learning the role of a graduate-assistant, she said: "I'm fortunate enough to have a coworker who's also a grad student at the college that I go to, working at the high school with me."

Shared experiences aided in facilitating peer relationships. Mackenzie, an NATBC GAAT, relied on her peers for support due to their ability to relate to her experiences:

My relationship with my peers. . . the 2 other [graduate-assistants] that I work with would be very much a kind of a give and take. We help each other out a lot, we relate to each other, especially in the type of position that we're in.

When asked about advice for future GAATs, participants discussed how comfort level and approachability factored into the decision to identify fellow GAATs as a primary support resource. Adam, a GAAT in an NATBC program, responded, "I would say ask as many questions as you can of the older [graduate-assistants]. If you're in doubt about something, you've got to ask a question."

Informal support was the most frequent type of peer support received. Participants identified fellow GAATs as a

positive and beneficial source of support. Informal support was provided for both clinical and academic purposes. No differences in the perceived amount of informal support received by the participants were found among the 3 academic program types.

**Formal Support.** Formal support was an intentional interaction among GAATs. Mostly, our GAATs were either provided with letters from the previous GAAT or drafted their own for the incoming GAAT to serve as a checklist or manual of expectations and requirements of the position. Erin further explained her experience of formal peer mentorship from the GAAT preceding her regarding the clinical aspect of her position at her PPAT program:

. . . honestly, the best resource I had there was the [graduate-assistant] who had graduated the year before me. She gave me a brief intro packet of her own and then was very available through e-mail and phone. . .

Alexa, an ATBC GAAT, discussed her experience giving formal guidance to the incoming GAAT:

Actually, I just wrote a little layout for the new [graduate-assistant] coming in just with preseason stuff. It's not to tell her that this person is this or that, I don't want that aspect of it, but just to be like, all right, so you have to do physicals now, you need to get this, this, and this into the online system, talk to coach about scheduling, and just like the little nitpicky things that I wish I would have known coming in. So I basically, as I went through last volleyball preseason, wrote down things that I would want her to know going right into it.

Formal support also emerged out of frustration with a lack of guidance from supervisors. Claire addressed the desire to improve the quality of the clinical experience for the new GAATs in her NATBC program:

We kind of talked to [the incoming GAATs] about what our expectations were so hopefully they have a good idea of what is expected, and we actually kind of came up with our own little, not handbook, but just kind of wrote down [key points] like these are all our team docs, these are what [the staff] expect you to do over lunch hour, this is what [the staff] expect you to do during clinics. . . I guess, sort of like starting from ground zero kind of like we were, so trying to make it better for the next people.

Carrie, an ATBC program GAAT, also noted that the struggles of her position prompted her to proactively contact the incoming GAAT as a way to assist with the transition:

The first year, I just was kind of going through the motions, just trying to get through the first year, and that's not how I wanted my first year to be. I wanted to come in like I did my second year, and so that's why, for the graduate-assistants that are coming in now, I've already talked to the one that's taking over my position, and I said, "Come in the middle of July, and

**Table 4. Perceived Support During the Graduate-Assistant Athletic Training Experience by Academic Program Type, n (%)**

Program Type	Peer Support	Supervisor Support	Academic Support
Postprofessional athletic training (n = 8)	7 (88)	6 (75)	5 (63)
Athletic training-based curriculum (n = 11)	9 (82)	8 (73)	5 (45)
Non-athletic training-based curriculum (n = 6)	5 (83)	6 (100)	0 (0)
Total (n = 25)	21 (84)	20 (80)	10 (40)

you will not regret it,” and that’s what I wish someone had told me.

Formal support often stemmed from the desire to improve the experience for the incoming GAAT. All participants who identified formal support discussed the interactions as occurring only during the clinical aspect of the GAAT experience.

### Supervisor Support

The second theme that emerged was *supervisor support*, defined as mentorship received by the GAAT from a full-time, experienced staff member within the clinical setting. Supervisor support was identified as the major form of mentorship received during the GAAT assignment, with 20 of the 25 participants (80%) discussing the presence of a positive clinical support system. The degree of support given by the supervisor was influenced by the supervisor’s availability. In Table 4, we highlight the various sources of support the GAATs perceived during the assistantship.

Graduate-assistant ATs in NATBC programs perceived the most supervisor support: all 6 participants (100%) received mentorship during the clinical aspect of the assistantship. Mackenzie highlighted the clinical mentorship she received in her NATBC program: “The other assistant [ATs] and our head athletic trainer, they’re all very helpful. Everyone kind of understands that we’re all very young and have questions, and they’re all very willing to help.”

Tara, a GAAT in an NATBC program, discussed the benefit and uniqueness of the clinical support she received from her supervisor, who was an alumna of the program she was completing:

Well, my supervisor was also a GA [graduate-assistant] here. She went through a very similar program. . . 6 years prior to me going through it, so [she] was a very good person to lean on for both experience, being a GA [graduate-assistant] and being a student, and so I think that was very helpful. She was able to give me good advice and—and just be a good ear to listen to problems and shoot ideas off of.

Strong clinical support was also identified by GAATs in ATBC programs; 6 of 8 (75%) PPAT program students and 8 of 11 (73%) ATBC program students acknowledged clinical mentorship during their experiences. Jason, an ATBC GAAT, discussed the value of the clinical mentorship he received:

The athletic trainers that I work with there have really, really helped me a lot to grow. . . I lacked some confidence when I first started, and they really helped me to gain confidence without putting a lot of pressure on me.

Alexa, another ATBC program student, also discussed clinical mentorship during her position in intercollegiate athletics:

I had the support of my coworkers and the staff who have had more experience in the clinical setting that I could go to if I had questions, but again, they weren’t hovering over every decision [I made] or every time I did an evaluation. . . I was the one making decisions.

Jill, too, received positive mentorship as a PPAT GAAT:

We [GAATs] have a pretty good relationship with all of our [staff ATs]. They are always available to us if we need help with anything. They are pretty good about explaining new situations to us. If we hadn’t had something come up before, they kind of walk us through it.

Jennie discussed clinical support in a PPAT program setting as well: “Sometimes I’d say you’d have to seek it out if you need it, but it was definitely there and everyone was definitely supportive if you let them know that you needed it.”

Graduate-assistant ATs received the majority of supervisor support during the clinical component of their graduate-assistantships. Supervisor support occurred in all 3 academic program types, but the NATBC GAATs perceived the most supervisor support.

Although supervisor support occurred in all academic program types, it differed based on the clinical assignment of the GAAT. Of our 25 participants, 5 were placed at off-campus clinical assignments at either a high school or middle school. None of the 5 (0%) high school or middle school setting GAATs reported supervisor support during their appointments. In contrast, 20 of the 25 (80%) GAATs assigned to an intercollegiate position received supervisor support.

The lack of supervisor availability affected the amount of supervisor support and mentorship provided during the GAAT experience. Erin discussed the limited availability of her supervisor in the PPAT program clinical setting:

For me, my clinical mentor was identified from day 1 as the resource for me, and really while he’s a tremendous resource. . . at the same time, he wasn’t very available, so I needed to identify other resources that were more available for when I needed them.

In some cases, accessibility of the clinical supervisor had a positive effect on the GAAT experience. The availability of Mia’s clinical supervisor in her PPAT program affected the level of autonomy she was given: “I have more independence just because my supervisor works football, so he is pretty tied up all the time.” Independence gained from less direct supervision was identified by GAATs as a

beneficial experience in their development as clinicians. Carrie highlighted this factor:

I really like that I was given full trust and responsibilities for my athletes. I know that. . . I just know a lot of colleges where you're still looked over all the time, and as soon as I got here, you know, I was certified, and I was the one making my decisions, doing everything on my own, and I really think that. . . even though, at the beginning, that was a couple of months. . . was a huge struggle because there was a lack of mentorship, I really feel like it helped me grow even faster and even better, but I really think that was the best part, was just being able to be my own athletic trainer from the start.

The understanding of role strain and overload by the GAAT also influenced the availability of the clinical supervisor. Erin observed that the stress placed on the athletic training staff associated with large workloads contributed to decreased availability:

Just the kind of lack of clinical mentorship, not for want of trying from the mentor, but just, you know, a time constraint, that job responsibility constraint and kind of overloading there and just the location setups that I'm really completely on my own. . . [my supervisor] is a great, great resource, but he's so busy it tended to make me feel, I don't know, kind of guilty just dragging him away from everything else on his plate.

Supervisor support was affected by the degree of availability the supervisor had for the GAAT. Our participants perceived reduced supervisor availability as both positive and negative aspects during their appointments. Lack of availability occurred within the clinical aspect of the GAAT experience and was associated with the supervisor's job demands. The GAAT population recognized the occurrence of role strain and overload.

### Academic Support Personnel

Academic support networks comprised academic advisers, program directors, and professors. Support within the academic component of the GAAT experience was reported by 10 of the 19 (53%) participants studying in an athletic training-focused program, where the mission was to provide a blended academic and clinical experience. More GAATs studying in PPAT programs acknowledged support from the academic staff than those studying in ATBC and NATBC programs. Lisa highlighted a strong sense of support from the academic staff in her PPAT program:

We work very closely with the faculty. . . we're more like colleagues more than anything because each [graduate-assistant] has a specific mentor that they work closely with, with their thesis or research project.

Academic support was experienced moderately by GAATs in ATBC programs, where 5 of 11 (45%) reported support from the academic faculty during their experiences.

Brianna discussed the support she received from her academic adviser in her ATBC program:

Academically, I would say probably my adviser was the biggest contributor to helping me out. We met every couple weeks, and we always talked about where I was in the process of my thesis and classes and everything like that, so we had a good relationship.

None of the 6 GAATs in NATBC programs felt strong support during the academic component of their experience. Emma, an NATBC student, discussed the lack of connection with the academic staff during her experience:

My interaction with my academic professors and advisers was pretty minimal. . . some of them I didn't make relationships with, some of them I did. . . but I didn't have the deep connections with them as far as like I do with the staff in my clinical side. For academics, it was more show up, go to class, and figure out the group projects as we go.

Degree requirements also contributed to the perceived level of academic support. Fifteen of 25 (60%) participants completed a master's thesis as a requirement for graduation. Of those completing a thesis, 10 of the 15 (67%) GAATs reported support from academic personnel, whereas zero of the 10 (0%) GAATs in nonthesis programs perceived a support network consisting of academic personnel during their experience. Academic requirements for each participant can be seen in Table 2.

Academic support was perceived by GAATs studying in PPAT and ATBC programs but more so in the former than the latter. None of the NATBC program graduate-assistants perceived support during the academic component of their experience. Academic support was perceived solely by students with a master's thesis requirement.

## DISCUSSION

Graduate-assistant ATs represent the future of the athletic training profession, as they are commonly the newest members of the profession, yet limited research is available regarding how this influential subpopulation perceives their experiences. For most GAATs, this position serves as the first experience working independently as an AT and is often thought of as an important element of transition to practice. The literature<sup>28-30</sup> in academic medicine has established that mentors and role models may have positive or negative (or both) effects on developing professionals. Mentorship aids in personal growth and professional development as well as career selection,<sup>28,29</sup> particularly through fostering learning, maturity, and reciprocal growth.<sup>31</sup> Conversely, negative influences or a lack of mentorship may adversely affect professional development and limit career success.<sup>28,30,32</sup> In the athletic training literature,<sup>13</sup> mentorship has been investigated in undergraduate students and suggested to play a key role in decision making regarding selection of a graduate program. However, the authors did not examine whether mentorship occurs once the undergraduate athletic training student has transitioned into and assumed the position as a GAAT. The opportunity to receive mentorship and professional support

while developing as a clinician has been identified as a major attractor in the decision to pursue a GAAT position<sup>13,18</sup>; therefore, it is important to understand how the GAAT perceives the support received during the experience. Researchers<sup>10</sup> have begun to understand mentorship of the GAAT; however, the examination is often from the perspective of the supervisor, not the graduate student.

The motivation behind the novice AT's choice of a GAAT position is highly influenced by the appeal of mentorship to facilitate clinical growth.<sup>15,18</sup> Pitney et al<sup>15</sup> found that communication, feedback, reinforcement, listening, providing advice, support and challenges, and role modeling are associated with successful mentoring as perceived by athletic training students and that practitioners play a key, multidimensional role in mentoring these students. Eason et al<sup>33</sup> observed that female ATs working clinically in the Division I setting valued relationships with mentors regarding career guidance. Absent from the literature is how mentoring can affect GAATs and if they are seeking or identifying professional mentors.

Our participants confirmed that GAATs seek guidance and support during their experience, echoing the findings of Mazerolle and Dodge.<sup>13</sup> What is compelling, however, is that the emphasis of the support sought is placed on the linear peer-to-peer relationships rather than the mentorship received from a hierarchal relationship with an experienced professional. Typically, the initiation phase of mentorship is marked by the protégé seeking a senior member for guidance,<sup>15,16</sup> whereas our participants gravitated toward relationships with members of similar experience levels. It is possible that, in some cases, our participants viewed second-year graduate-assistants as the experienced member to obtain guidance from or that the senior GAATs demonstrated immediate willingness to provide guidance for the young GAAT or both. Peer mentoring does occur in medical and allied health education programs, especially in the clinical education setting, often because the relationship fosters encouragement, sharing, and support,<sup>34,35</sup> which appeared to happen among our cohort of GAATs. This idea is consistent with the results of Sinclair et al,<sup>36</sup> who found that surgical trainees demonstrated strong desires and tendencies to provide peer mentoring to other trainees, specifically in the form of informal, undocumented mentoring. Our results do not downplay or suggest that a hierarchal relationship is not important in professional growth or development but that once certification is attained, peers provide a more favorable, supportive relationship. This observation is consistent with the literature, as most individuals who become more comfortable with their skills do so because of immersion into their professional culture, which is often fostered by peers and practicing professionals.<sup>37</sup> Camaraderie between GAATs resulted from a shared understanding of each other's roles and provided a foundation for their relationship. The ability to relate to one another can be considered the catalyst for generating a comfortable and open environment in which to seek support, making linear relationships the preferred resource during the GAAT assignment.

Guidance and mentorship from seasoned ATs is of high value during the education process<sup>13</sup> and holds a crucial role in the professional development of the AT,<sup>33</sup> yet professional mentorship was not described as the immedi-

ate choice or most accessible form of guidance during the GAAT experience. In off-campus clinical assignments, such as the high school GAAT position, the opportunity to learn from a seasoned professional is often nonexistent, as the GAAT commonly serves as the sole care provider for the athletes. Therefore, individuals in these types of positions may not be afforded the opportunity to receive mentorship and guidance from an onsite clinical supervisor, which is likely to contribute to the draw toward peer support, especially from other GAATs with similar clinical assignments. Approachability and interpersonal skills of the supervisor have been identified as barriers to mentorship.<sup>15,38</sup> The absence of these characteristics among supervisors and their presence between fellow GAATs may contribute to the significance of peer relationships as discussed by our participants. Support from the clinical supervisor was often addressed in the context of availability, with both positive and negative connotations. Difficulties obtaining supervisor support were ascribed to limited availability of the full-time staff member. It is well understood that ATs are under stress and often experience higher levels of role overload and strain,<sup>39,40</sup> which may help explain our findings regarding GAATs' negative experiences with supervisor mentoring. It may also indicate that stress is an understood and accepted component of the athletic training profession, as participants expressed concern about burdening their supervisors with their needs for guidance and mentorship.

Although the lack of supervisor availability left some GAATs feeling isolated, others enjoyed the independence. Not only are GAATs hoping to gain mentorship during this transitional period, but they are eager to experience autonomy for the first time. Neibert et al<sup>41</sup> found that novice ATs sought low-pressure, low-consequence learning environments during graduate-assistant experiences as a means to gain real-life work experience with guidance and support. One can speculate that this dichotomy results from the excitement of transitioning into the role of clinician conflicting with the confidence level and apprehension associated with the young professional. Limited opportunities for self-growth and lack of independence have been identified as concerns about mentorship within athletic training.<sup>15</sup> Therefore, a delicate balance must be maintained between granting the GAAT clinical independence while providing adequate supervision and maintaining the educational integrity of the position.

Advisers, program directors, and professors comprised the academic support networks. Support from academic personnel was more commonly presented in the form of an adviser than a traditional mentor. Differences between advisers and mentors have been discussed by Peyton et al,<sup>42</sup> who identified an *adviser* as an individual whose role was curriculum oriented. Consistent with the findings of Peyton et al,<sup>42</sup> our participants described guidance in regard to accomplishing program requirements and responsibilities, whereas in addition to advising, an *academic mentor* provided inspiration for academic success, goal setting, and career planning.<sup>42</sup> Academic support received during the undergraduate experience contributed to the selection of an athletic training-based graduate-assistant program,<sup>13</sup> and advising was described as a positive contribution to the GAAT experience; those in PPAT and ATBC programs with a thesis requirement expressed appreciation for the

constructive relationships among academic personnel. Moreover, completion of a PPAT or ATBC program has been seen as a way to develop into an expert clinician due to an increased understanding of the foundational subject matter as well as the theoretical underpinnings of the domains of athletic training.<sup>41</sup> This finding detailed by Neibert et al<sup>41</sup> illustrates the need for and importance of academic mentoring and interactions in these programs, which were also helpful to our participants. The required collaboration between a student completing a thesis and an academic faculty adviser is a possible explanation for the differences in the academic support perceived between students with and without a thesis requirement.

## LIMITATIONS AND FUTURE RESEARCH

Although our findings are notable, certain limitations must be considered. This study was exploratory, with a small representation of the GAAT population. The results provide some insights into their experiences; however, they cannot be generalized to the entire GAAT population. More women than men volunteered to participate in this study but no identifiable differences were found in the perception of mentorship between the sexes, despite the disparity in numbers. Because a large amount of postprofessional athletic training education takes place within the Division I setting, we selected these academic programs to provide a more homogeneous population of participants. Future researchers should examine graduate-assistantships at non-Division I universities.

As previously stated, our main purpose was to begin to explore the socialization process for the GAAT; thus our sample was small but representative. Future authors should include a more robust group of GAATs to help validate the findings presented in this paper. Options could include a mixed-methods study that involves multiple perspectives, including the GAAT, supervisors, and program coordinators. Also, although participants were asked to reflect on their experiences, the interviews were conducted at 1 point in time and therefore do not represent a longitudinal experience.

The data presented in this paper were part of a larger investigation examining the professional socialization process and the influence of the graduate-assistant experience on future career decisions of the GAAT. Mentorship was discussed as an important aspect of the socialization process for the GAAT; however, not all questions in the interview guide were geared toward mentorship. An expanded line of questions regarding mentorship will allow participants to elaborate on the effects and perceptions of support networks during their experiences. Therefore, future researchers may want to focus on the mentorship and support networks perceived by GAATs during their experiences.

## CONCLUSIONS

The GAAT position is an important experience in an AT's career, as it often marks the first step of transition into clinical practice. Transition to practice is critical in the development of competent health care practitioners and has recently become a central focus for athletic training. The graduate-assistant role has long been viewed as the key to this transition, because it blends autonomous practice with

support and mentorship from peers and supervisors. The literature highlights the influential role of mentorship, particularly within the context of undergraduate academics; however, no authors until now, to our knowledge, have examined the effects of mentorship from the perspective of the graduate-assistant population. Our findings support the rationale behind seeking a GAAT position to obtain mentorship and guidance, but we also discovered a substantial presence of peer-to-peer support as an intricate part of the mentoring process. A supervisor's approachability and good interpersonal skills promote positive mentorship, whereas a lack of approachability and poor interpersonal skills may encourage students to seek support from peers. A harmonious balance between providing guidance while allowing autonomy during the GAAT experience is central for supervisors to aid in professional development. Academically, advising is a welcome component of the GAAT experience for those in educational programs with an athletic training foundation. Most important, the influences encountered during this significant chapter of the young professional's career have a substantial effect on personal and professional growth as well as professional commitment, highlighting the significance of mentorship during this transitional stage.

## REFERENCES

1. 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.
2. Pitney WA. A qualitative examination of professional role commitment among athletic trainers working in the secondary school setting. *J Athl Train.* 2010;45(2):198–204.
3. McPherson BD. Socialization into and through sport involvement. In: Luschen G, Sage GH, eds. *Handbook of Social Science of Sport: With an International Classified Bibliography.* Champaign, IL: Stipes; 1981:246–273.
4. 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.
5. Harvill LM. Anticipatory socialization of medical students. *J Med Educ.* 1981;56(5):431–433.
6. 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.
7. Stroot SA, Williamson KM. Issues and themes of socialization into physical education. *J Teach Phys Educ.* 1993;12(4):337–343.
8. Sabari JS. Professional socialization: implications for occupational therapy education. *Am J Occup Ther.* 1985;39(2):96–102.
9. Ousey K. Socialization of student nurses: the role of the mentor. *Learn Health Soc Care.* 2009;8(3):175–184.
10. Thrasher A, Walker S, Hankemeier DA, Pitney W. Supervising athletic trainers' perceptions of professional socialization of graduate-assistant athletic trainers in the collegiate setting. *J Athl Train.* 2015;50(3):321–333.
11. Mazerolle SM, Eason CM, Clines SH, Pitney WA. The professional socialization of the graduate-assistant athletic trainer. *J Athl Train.* 2015;50(5):532–541.
12. Mazerolle SM, Walker SE, Thrasher A. Exploring transition to practice for the newly credentialed athletic trainer: a programmatic view. *J Athl Train.* 2015;50(10):1042–1053.
13. Mazerolle SM, Dodge TM. National Athletic Trainers' Association-accredited postprofessional athletic training education: attractors and career intentions. *J Athl Train.* 2012;47(4):467–476.

14. Levinson D, ed. *The Seasons of a Man's Life*. New York, NY: Alfred A. Knopf, Inc; 1978.
15. Pitney WA, Ehlers G, Walker S. A descriptive study of athletic training student's perceptions of effective mentoring roles. *Int J Allied Health Sci Pract*. 2006;4(2):1–8.
16. Kram KE. Phases of the mentor relationship. *Acad Manage J*. 1983; 26(4):608–625.
17. Cohen NH. *Mentoring Adult Learners: A Guide for Educators and Trainers*. Malabar, FL: Krieger Publishing Co; 1995.
18. Mazerolle SM, Monsma E, Dixon C, Mensch J. An assessment of burnout in graduate-assistant certified athletic trainers. *J Athl Train*. 2012;47(3):320–328.
19. Post-professional programs. Commission on Accreditation of Athletic Training Education Web site. <http://caate.net/post-professional-programs/>. Accessed August 20, 2015.
20. Search programs. Commission on Accreditation of Athletic Training Education Web site. <http://caate.net/find-programs>. Accessed August 20, 2015.
21. Future directions in athletic training education. National Athletic Trainers' Association Web site. <http://www.nata.org/sites/default/files/ECE-Recommendations-June-2012.pdf>. Published June 25, 2012. Accessed August 20, 2015.
22. Mazerolle SM, Gavin KE, Pitney WA, Casa DJ, Burton L. Undergraduate athletic training students' influences on career decisions after graduation. *J Athl Train*. 2012;47(6):679–693.
23. Seidman I. *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. 3rd ed. New York, NY: Teachers College Press; 2006.
24. Whittaker M, Cartwright A. *The Mentoring Manual*. Brookfield, VT: Gower Publishing Limited; 2000.
25. Creswell JW. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. 2nd ed. Thousand Oaks, CA: SAGE Publications; 2007.
26. Johnson B, Christensen L. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. 2nd ed. Boston, MA: Allyn and Bacon; 2004.
27. Mazerolle SM, Bruening JE, Casa DJ, Burton L. 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):513–522.
28. Sambunjak D, Straus SE, Marusic A. Mentoring in academic medicine: a systematic review. *JAMA*. 2006;296(9):1103–1115.
29. Straus SE, Chatur F, Taylor M. Issues in the mentor-mentee relationship in academic medicine: a qualitative study. *Acad Med*. 2009;84(1):135–139.
30. Applegate WB, Williams ME. Career development in academic medicine. *Am J Med*. 1990;88(3):263–267.
31. Ragins BR, Kram KE. The roots and meaning of mentoring. In: Ragins BR, Kram KE, eds. *The Handbook of Mentoring at Work: Theory, Research, and Practice*. Thousand Oaks, CA: SAGE Publications; 2007:3–15.
32. Kenny NP, Mann KV, MacLeod H. Role modeling in physicians' professional formation: reconsidering an essential but untapped educational strategy. *Acad Med*. 2003;78(12):1203–1210.
33. Eason CM, Mazerolle SM, Goodman A. Motherhood and work-life balance in the national collegiate athletic association division I setting: mentors and the female athletic trainer. *J Athl Train*. 2014; 49(4):532–539.
34. Glass N, Walter R. An experience of peer mentoring with student nurses: enhancement of personal and professional growth. *J Nurs Educ*. 2000;39(4):155–160.
35. Henning JM, Weidner TG, Marty MC. Peer assisted learning in clinical education: literature review. *Athl Train Educ J*. 2008;3(3): 84–90.
36. Sinclair P, Fitzgerald JE, Hornby ST, Shalhoub J. Mentorship in surgical training: current status and a needs assessment for future mentoring programs in surgery. *World J Surg*. 2015;39(2):303–313.
37. Thornton R, Nardi PM. The dynamics of role acquisition. *Am J Sociology*. 1975;80(4):870–885.
38. Burningham DS, Deru L, Berry DC. What traits make for an effective athletic training educator and mentor? *Athl Train Educ J*. 2010;5(4):183–186.
39. Brumels K, Beach A. Professional role complexity and job satisfaction of collegiate certified athletic trainers. *J Athl Train*. 2008;43(4):373–378.
40. Henning JM, Weidner TG. Role strain in collegiate athletic training approved clinical instructors. *J Athl Train*. 2008;43(3):275–283.
41. Neibert P, Huot C, Sexton P. Career decisions of senior athletic training students and recent graduates of accredited athletic training education programs. *Athl Train Educ J*. 2010;5(3):101–108.
42. Peyton AL, Morton M, Perkins MM, Dougherty LM. Mentoring in gerontology education: new graduate student perspectives. *Educ Gerontol*. 2001;27(5):347–359.

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