## Supervisor Perceptions of Newly Credentialed Athletic Trainers' Transition to Practice

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**Context:** Transition to practice for newly credentialed athletic trainers (ATs) has been described through the perspective of educators, supervisors of graduate assistant ATs, students, and recent graduates; however, the opinion of supervisors of full-time ATs has not been thoroughly investigated.

**Objective:** (1) Describe supervisor perceptions of the transition to full-time practice for newly credentialed ATs and (2) describe current onboarding processes used by employers.

**Design:** Phenomenological qualitative study.

**Setting:** Semistructured interviews.

**Patients or Other Participants:** Purposive sample of 10 (4 men, 6 women) supervisors of newly credentialed ATs. Supervisors reported an average of 13.5 years of supervisory experience (range, 5–26 years).

**Data Collection and Analysis:** Questions addressed supervisor expectations, strengths and weaknesses of newly credentialed ATs, and the organization's onboarding process. The primary researcher transcribed audio recordings and each participant reviewed transcripts. Two researchers coded themes using an inductive process; a peer auditor completed an independent review. Disagreements were negotiated until consensus was reached.

**Results:** Two categories emerged: (1) characteristics of newly credentialed ATs and (2) onboarding strategies. The first category was organized into 2 subcategories: (1) knowledge, skills, and abilities (KSAs) and (2) unrealistic job expectations. The majority of supervisors felt that newly credentialed ATs were knowledgeable; however, the translation of knowledge into practice was viewed as an area requiring mentorship. Participants also reported that newly credentialed ATs often were poorly informed of the work schedule and time demands. In regard to onboarding processes, the researchers identified 7 different strategies reported by supervisors.

**Conclusions:** Newly credentialed ATs were perceived as knowledgeable but struggling to transition knowledge to clinical practice and often did not understand the work demands. Seven onboarding strategies were reported by participants; each of these can be used to develop KSAs of newly credentialed ATs. The KSAs should be addressed through a yearlong process consisting of orientations, shadowing, mentorship, seminars, and skill assessments.

Key Words: Onboarding, mentorship, athletic training supervisor

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#### **KEY POINTS**

- Newly credentialed ATs appear to have a strong knowledge base; however, they seem to require ongoing mentorship to transition their knowledge into clinical and interpersonal skills.
- A 12-month onboarding process tailored for newly credentialed ATs should address clinical and interpersonal skills by combining ongoing education with support and feedback.
- The onboarding process should minimally include shadowing opportunities with other healthcare professionals, formal mentoring programs, continuing education, and skill simulations and assessments.

#### INTRODUCTION

Transition to practice can be described as the multidimensional process by which professionals redefine their identities, roles, and responsibilities in response to an imposed demand.<sup>1,2</sup> For health care professionals, the imposed demand may be represented by the entry into a profession. the reentry into practice after taking time away, or the assignment of a new role or responsibility.<sup>1,2</sup> In athletic training, the transition to practice has been investigated most recently from the viewpoints of educators,<sup>3,4</sup> supervisors of graduate assistant athletic trainers,<sup>5</sup> current students enrolled within professional athletic training programs,<sup>3,6</sup> and recent graduates of professional athletic training programs.<sup>1</sup> From the viewpoints of educators and supervisors, it can be deduced that newly credentialed athletic trainers (ATs) tend to experience difficulties with time management, confidence, administrative duties, communication, and conflict management.<sup>3-5</sup> Many of these skills represent elements of professionalism that have been cited as areas of weakness in the transition to practice of not only ATs<sup>5</sup> but also physicians,<sup>7</sup> physical therapists,<sup>8</sup> and occupational therapists.<sup>9</sup>

In comparison, athletic training students<sup>3,6</sup> and recent graduates within the last 12 months<sup>1</sup> have provided a different perspective from that of educators<sup>3,4</sup> and supervisors.<sup>5</sup> Athletic training students<sup>3,6</sup> have reported they feel well prepared in regard to professionalism, administrative duties, and practice skills; however, they have reported difficulty with their confidence, time management, and ability to cope with stress. Addressing these difficulties, recent graduates of athletic training programs<sup>1,10</sup> indicated that orientations and mentoring at their places of employment could foster a smoother transition into practice. Walker et al<sup>1</sup> also stressed the importance of ongoing mentorship provided by past preceptors who had supervised newly credentialed ATs as students. This support offered guidance to the AT experiencing new situations as a clinician. More important, it provided new graduates with a network of experienced ATs who could serve as professional mentors.<sup>1,11</sup>

A thorough and skills-based onboarding process for newly credentialed ATs may be an effective means by which hiring organizations can address barriers to successful transition to practice. Such an onboarding process includes more than a few days of orientation; instead, onboarding represents a structured program consisting of ongoing education, assigned mentors, support, evaluation, feedback, and a supervised immersive period as the new employee assumes job-related duties and patient-care responsibilities.<sup>12</sup> This approach may mirror the 1- to 2-year process for postprofessional athletic training students who serve as graduate assistant athletic trainers<sup>5,10</sup>; yet, it is much different than the process typically provided by most full-time employers of ATs.<sup>11</sup>

Comprehensive onboarding processes for nurses have been shown to limit transitional shock,<sup>12,13</sup> decrease medical errors,<sup>12,13</sup> improve employee satisfaction,<sup>14</sup> and decrease employee turnover.<sup>15</sup> The National Council of State Boards of Nursing (NCSBN) developed a transition to practice model<sup>13</sup> for newly credentialed nurses that provides knowledge of roles and responsibilities, scenario practice, formal mentorship, consistent meetings to address topics such as lifestyle adjustment and conflict management, and department-specific skills. The published outcomes resulting from the NCSBN's longitudinal study<sup>13</sup> indicated that a 9- to 12month transition-to-practice program produced significant improvements in self-reported medical errors, use of safety practices, work stress, job satisfaction, and employee retention. The NCSBN's model<sup>13</sup> could provide a template for fulltime employers of ATs.

Although the opinions of supervisors of graduate assistant athletic trainers<sup>5</sup> have been investigated, the views of employers and supervisors of full-time newly credentialed ATs have been less defined in the literature. This is important because the onboarding process for full-time ATs is arguably different from the process for onboarding graduate assistant athletic trainers,<sup>5</sup> void of course work and on-site supervised mentorship in most cases. A 2009 study<sup>16</sup> of newly credentialed ATs reported that job-specific skills and administrative experiences were lacking. A more current study<sup>5</sup> investigating supervisors of graduate assistants reported that graduate assistants typically lack role orientation and require more professional development and better self-awareness and accuracy of role expectations. The purpose of our research was to use qualitative interviews with Midwest-based supervisors of newly credentialed full-time ATs to describe (1) supervisors' perceptions of full-time ATs regarding their transition to practice and (2) current onboarding processes for newly hired full-time ATs.

#### METHODS

To describe participants' experiences, the primary researcher (S.C.) used a qualitative paradigm. We applied a transcendental phenomenological qualitative approach, described by Neubauer et al,<sup>17</sup> to illustrate the experiences of supervisors

#### Table 1. Description of Participants

Participant Pseudonym	Setting	Years in Current Role	Average No. of Newly Credentialed ATs Hired Annually	No. of Newly Credentialed ATs Supervised Currently
Fred	Outreach from hospital	5	2	13
Jill	Outreach from hospital	4	8	14
Jim	Outreach from hospital	10	2	3
Lucas	Outreach from clinic	2	6	22+
Lucy	Outreach from hospital	5	3	10
Ned	Outreach from hospital	3	8	1
Olivia	College	2	8	8
Susan	Outreach from hospital	6	12	1
Tom	Outreach from hospital	1	1	4
Will	College	4	9	1

Abbreviation: AT, athletic trainer.

who worked with newly credentialed ATs. The primary researcher's interactions with the participants in this study were documented to provide greater comprehension of their perceptions of newly credentialed ATs and their organizations' respective onboarding processes. In phenomenological qualitative studies, researchers must not allow their subjectivity to inform or influence the participants' descriptions. To control for this potential influence or bias, a 2-person research team (S.C. and L.H.) analyzed interview transcripts independently before meeting as a team to develop consensus. In the final step, an external auditor confirmed the results of the research team to limit potential biases. This study was approved by an institutional review board before data collection, including data collected as part of the mock interviews (ie, pilot test). The primary researcher obtained written informed consent from each participant (recruited, n = 8; pilot test, n = 2) before data collection.

#### Instrumentation

For data collection, a semistructured interview based upon an interview script used by Mazerolle et al<sup>4</sup> was adapted for this study. Because their original 20-question script was designed to gain an understanding of the transition to practice of graduate assistant athletic trainers, the questions used in this study were amended to reflect full-time employment. This eliminated 10 questions that were focused upon practicing as a graduate assistant athletic trainers, studying as a graduate student, or the dual complexities of doing both concurrently. Five new questions, 3 of which were demographic in nature, were added and 2 original questions were combined into 1, resulting in a 14-question script. The interview script is provided in the Appendix.

The primary researcher piloted the semistructured interview script in 2 steps to reduce measurement error and establish construct validity. First, 3 managers of newly credentialed ATs who met the study's inclusion criteria were purposively recruited and invited to review the interview script for content and clarity. These 3 managers were not participants in this study. Instead, they were used to provide expert feedback on the interview script. Feedback resulted in the reordering of questions to improve the flow and logical order; 2 questions were amended to improve clarity and avoid potential bias. Next, the script was piloted in a mock interview with 2 people who supervised ATs and met the study's inclusion criteria; the

goal of the pilot was to improve the clarity of questions and flow of the script. The pilot interview participants were identified and invited to participate on the basis of recommendations given to the primary researcher by the 3 managers who had previously provided feedback. Pilot participants (n = 2) were instructed not only to answer questions but also to provide feedback as to the comprehension of questions as well as the potential to influence a positive or negative response. After the pilot test, 2 questions were amended by deleting 1 word that participants felt might introduce bias. Because the 2 participants responded in a manner recognizing the bias and revisions to the interview script were minimal, data from the 2 pilot interviews were included in the study. The final script provided structure to ensure consistency while also offering the primary researcher the opportunity to ask follow-up questions to promote dialogue and expand the comprehension of the participants' experiences.

#### Participants

The target population was supervisors of newly credentialed ATs employed in sports medicine settings throughout the Midwest; this population was identified through internet searches of job postings for entry-level ATs between November 2017 and November 2018. To be included, all participants must have supervised at least 3 newly credentialed ATs within the last 5 years. For this study, we defined *newly credentialed ATs* as those who had been Board of Certification certified for less than 1 year and were working full time as athletic trainers.

After identification of entry-level job postings, 16 e-mails were sent to the identified supervisors of ATs within the job postings to determine their eligibility and willingness to participate. A total of 8 supervisors responded, resulting in a response rate of 50%. The primary researcher sent a second e-mail to those who responded and established an in-person (n = 6) or videoconference (n = 2) interview using Zoom software (Zoom Video Communications, Inc, Version 4.0). The 2 pilotinterview participants were also in person, resulting in a total of 8 in-person interviews.

A purposive sample resulted in 10 participants, representing 7 large medical centers, 1 outreach sports medicine clinic, and 2 Division I collegiate athletic programs. Table 1 provides a description of the participants and their experience as a supervisor. The average length of time as a supervisor was

## Table 2. Frequency of Participant Responses byCategory and Subcategory

Category or Subcategory	Frequency (n = 10)
Characteristics of newly credentialed ATs	10
Knowledge, skills, and abilities (S)	10
Job expectations (S)	7
Onboarding strategies	10

Abbreviations: AT, athletic trainer; S, subcategory.

13.5 years (range, 5–26 years). On average, supervisors reported managing 28.5 ATs annually (range, 13–72 ATs).

#### **Data Collection Procedures**

Before the interview, each participant was provided a pseudonym and a fictitious employment site to be used during the interview. Participants were referred to by their pseudonyms. Sessions lasted 45 to 60 minutes. The primary researcher (S.C.) followed the semistructured script in oneon-one interviews while also taking notes. Each interview was audio recorded. Immediately after the interview, the primary researcher downloaded the audio files onto a passwordprotected computer where only she had access to the files. From these audio files, the primary researcher transcribed the data verbatim, and a transcript was sent to each participant to make clarifications and edits. This member check was used to verify the accuracy of the transcript in capturing the voice and intent of the participant, thus assuring trustworthiness of the data. Seven of the 10 participants confirmed the accuracy of their transcripts, whereas 1 participant provided additional clarification for 2 answers, and 2 did not respond.

According to the transcendental phenomenological qualitative approach, data saturation drove recruitment. The 2 independent reviewers, (S.C. and L.H.), performed a cursory read of each transcript after the member check to gain an overview of the interview. Then each researcher identified themes and assigned a code to the theme within the margin of the transcript. This process was repeated after each interview. After the eighth interview (ie, 2 pilot and 6 recruited), the researchers met to discuss their codes. Both researchers felt that the coded themes were repeating across participants; however, 2 remaining interviews were scheduled. Thus, data collection continued for the 2 scheduled participants. Data from the 2 interviews did not add additional insight or result in new codes or themes.

#### **Data Analysis**

An inductive content technique was used to analyze the transcripts. A 2-person research team, consisting of the primary researcher (S.C.) and 1 other researcher (L.H.) with 20-plus years of experience conducting survey and qualitative research, read each transcript independently. After the first 8 interviews, both researchers identified themes and assigned a code to the theme within the margin of the transcript. After the final 2 interviews were completed, the coded themes were discussed among the researchers (S.C. and L.H.) to assign a mutually agreed-upon code and condense and organize codes into categories. In all cases, the researchers ascribed codes to the same emergent themes; however, they used different terms

Figure. Summary of characteristics of newly credentialed athletic trainers reported by participants.



to categorize the themes. Thus, the consensus meetings between the 2 researchers resulted in alignment of the terms used for codes, categories, and subcategories. To ensure credibility, an external peer auditor who was both an AT and experienced in qualitative methods performed an independent review of the transcripts, general themes, codes, and final categories and subcategories. No disagreements arose between the researchers and peer auditor.

#### RESULTS

Two categories of themes emerged regarding employers' perceptions of newly credentialed ATs: (1) characteristics of newly credentialed ATs and (2) onboarding strategies used by employers to address transition to practice. The first category, characteristics of newly credentialed ATs, was organized into 2 subcategories: (1) knowledge, skills, and abilities (KSAs) and (2) unrealistic job expectations. Table 2 provides the frequency data for participants' responses per category and subcategory. The Figure offers a description of the KSA subcategory.

#### **Characteristics of Newly Credentialed ATs**

The initial theme described by participants was characteristics of newly credentialed ATs. Each participant described positive and negative characteristics displayed by newly credentialed ATs as they transitioned into full-time employment. These characteristics were further divided into 2 subcategories. The first, KSAs, was identified in each participant's comments. Knowledge was represented by the intellectual breadth and depth, or "textbook knowledge," exhibited by newly credentialed ATs, whereas *skills* represented the psychomotor application of knowledge to practice (eg, medical documentation, physical exam, patient-care plan development). Abilities encompassed the "soft skills" determining the capacity for interpersonal communication, time management, and problem solving. Unrealistic job expectations, the second subcategory, was described in 7 of the 10 participants' interviews. Participants offered copious examples of their negative perceptions regarding newly credentialed ATs' unrealistic views of what a career in athletic training entails.

#### **Characteristics of Newly Credentialed ATs: KSAs**

**Knowledge and Skills.** All of the participants (n = 10) felt that newly credentialed ATs were knowledgeable. Jim stated the following when referencing the knowledge base of newly credentialed ATs. "The new graduates coming out are very well educated, very knowledgeable. That's probably their biggest strength, their knowledge." Other participants echoed

Jim's sentiments and believed the knowledge base of today's graduates far exceeded the knowledge they personally had as newly credentialed ATs. Lucy stated:

When you talk about the classroom, textbook side of it, they are extremely strong. I mean, they are learning things now that I didn't.... So, I think really things I've seen stand out, um, rehab skills tend to be ... very good as a young professional.... I think they're much better prepared than they used to be.

Jill agreed: "They come with a huge book base of knowledge. I think that . . . they know the black and white." And, although she was complimentary of the knowledge base, she felt that this type of thinking may impose a barrier to their ability to "think outside of the box a little bit."

#### Jill explained:

... if I go into an athletic training room and I don't have a hydrocollator, how am I going to heat somebody?... I don't feel like they have the creativeness to really try and find something that will work for that individual in the setting that they've been given. I've noticed a lot of times they... feel like they need the newest, you know, technology and tools and fancy gadgets.

Whereas Jill's comments tend to elucidate an inability to be innovative with skills, others felt the issue was larger than innovation. Participants (n = 5) felt the strong knowledge base contributed to "black and white" or "textbook" thinking that served as a barrier to developing the contextual thinking required of a clinician who must apply skills on the basis of the individual patient's needs. Susan summarized the issue well when she stated: "I think that newly credentialed ATs are very confident in their knowledge and not necessarily as confident in their physical skill set." Several participants blamed the black and white or textbook decision-making on insufficient experience provided in clinical or field experiences as students. Lucas further explained this as a lack of autonomy. "They've never had the expectation of autonomy. And so, when they finally get that autonomy, they don't know what to do with it. It seems to cause them a lot of anxiety, a lot of angst, a lot of stress."

**Abilities.** A lack of soft skills (ie, abilities), including communication deficits and the inability to prioritize patient cases and manage patient volume, were described by 80% of the participants (n = 8). Discussing newly credentialed ATs' communication skills, Jim offered insight into how a lack of autonomous experience can limit confidence in not only clinical skills but also basic communication skills.

[They lack] . . . confidence in their hands-on skills because somebody's always been watching what they're doing. They've got the knowledge to do it, but having confidence and an interaction with parents, coaches, things like that is probably that hands-on part that is lacking all the way around.

Olivia further explained:

I would say that they probably struggle with time management and their ability to recognize their limitations. I think they like to avoid conflict, and they like to communicate via text message or GroupMe or something where they don't have to do face-to-face interactions. As demonstrated by Olivia's comments, 90% of the participants (n = 9) reported avoidance of face-to-face communication as a barrier to successful transition to practice for newly credentialed ATs. This tendency often contributed to misunderstandings or created conflict, which most newly credentialed ATs were unable to de-escalate. Lucas believed the lack of communication stemmed mostly from ineffective time management. When newly credentialed ATs are attempting to manage the health care of 100 patients, face-to-face communication with coaches, parents, administrators, and referring physicians falls down the list of priorities. Lucas offered insight into the struggle with time management:

They struggle with the fact that school lets out at 2:45 PM and by 3:15 PM every athlete has to be at practice. They struggle with being able to get all the patients through, do any kind of rehab, and get out to talk to coaches. They have trouble realizing they can't be all things to all people, and they can't see every patient right away. I think they really want to be able to do rehabs, but I think they need to perform more thorough evaluations instead. . . . [T]hey have to learn how to manage the flow and prioritize the interpersonal communications and relationships.

Although managing patient volume and appropriately triaging were skills that many participants felt would improve with experience, Tom provided an additional perspective on the consequence of not being able to manage patient volume and cases from day one.

I think sometimes not intervening early enough to prevent an injury from becoming more serious has to do with the volume of patients they see. I think the volume puts them at risk for missing or misdiagnosing an injury. For instance, it's the fall, it's their first year working in a high school and there's 100 cross-country kids to manage on top of football, volleyball, [and] soccer.

Other participants provided examples of parents being upset when serious injuries were not communicated by newly credentialed ATs, whereas others reported that coaches were upset at not being informed about a patient's status. These situations often resulted in conflict that might have been avoided initially if the appropriate information had been communicated in a timely and appropriate manner. Ned provided additional insight when discussing the lack of abilities he had witnessed:

Very much the soft skills, the professionalism-type skills, so... conflict resolution, time management, being able to understand what battles are worth fighting and which ones are not, how to have hard conversations, how to talk to a highpowered coach, how to talk to a superintendent, and then how to talk to a parent, how to talk to a physician.

## Characteristics of Newly Credentialed ATs: Unrealistic Job Expectations

Whereas 2 participants did not explain job expectations in any sense, positive or negative, 7 participants described newly credentialed ATs' job expectations in a negative manner and 1 reported "very positive" attitudes toward work. Lucy explained her experiences as positive, and indicated that "they want to work, they want to learn." However, she acknowledged that "you still always have some that aren't quite as invested perhaps. And I'm not sure if they fully understand

# Table 3. Onboarding Strategies Reported byParticipants and the Relation to Identified Knowledge,Skills, and Abilities

Onboarding Element	KSA	Frequency of Strategy Reported by Participants (n = 10)
Organization orientation Department orientation Various department shadowing Informal mentorship Formal mentorship Continuing education/collaboration Skill assessments	K KA KS KSA KSA	10 10 4 5 3 9

Abbreviations: A, abilities; K, knowledge; S, skills.

the expectations of the profession and so they tend to lag a little bit and struggle with getting up to par."

Although no participants indicated any issues with the health care–related expectations of the ATs they supervised, many expressed concerns about newly credentialed ATs' general attitudes toward work. Fred described his experience: ". . . there has definitely been a culture shift about expectations with newly credentialed athletic trainers. . . . We've seen some . . . like a 40-hour workweek is overwhelming, and they don't know what to do." Other participants provided examples of behaviors that indicated a lack understanding regarding second shift, an unwillingness to work weekends, and a refusal to work holidays, spring break, or overtime. Seven of the 10 participants referenced 1 or more of these issues. Lucas explained his experience with the difficulty newly credentialed ATs experienced adapting to the full-time work schedule:

I would say that they seem to struggle initially with the rapid increase in the hours and the demands. I don't know if they come out of school thinking that they're going to be able to work 8:00 AM to 4:00 PM. Especially in the secondary schools, it's a second shift job; you're going to get into work at 2:00 PM or 3:00 PM in the afternoon and leave around 9:00 PM in the evening. They seem to struggle with understanding that's the life.

Jim provided additional insight into the unrealistic expectations he has encountered: "They don't have a full concept of what the job entails. I don't think they are taught that they're going to work weekends, they're going to work holidays, and I am sorry, but you are going to stand in the rain on a Friday night."

#### **Onboarding Strategies**

The final category, onboarding strategies, described the processes used by participants to orient all new employees to their roles and responsibilities as well as to provide goals and expectations regarding performance. For participants employed by medical centers and clinics, these strategies were used for all new employees, regardless of the number of years of experience. In contrast, the 2 participants from colleges described onboarding strategies used exclusively for new hires who were also newly credentialed ATs. Both college supervisors (ie, Olivia and Will) offered examples illustrating a

general onboarding process for all employees and a more intensive process for interns or fellows. Olivia explained:

... we have a 1-day retreat for new employees. We have a retreat the day after this for the entire staff... we have 1 staff member that's assigned to our interns that manages all of them. So, they have monthly meetings ... to talk about pertinent issues that may be happening as part of the group, but also from a professional development standpoint. And every newly credentialed person is paired up with ... senior staff members, so they have a person that's giving them consistent daily feedback.

This specific and focused attention is most likely representative of the fact that colleges typically hire those with less than 1 year of experience as interns or fellows, which is not the case for medical centers and clinics. Will described his experience as a supervisor of athletic training fellows: "Our athletic training fellow positions are 1-year renewable. Traditionally we . . . don't allow them or encourage them . . . to stay longer, but every now and then, they will stay more than 1 year." By nature of the positions, interns and fellows are provided more educational scaffolding and direct supervision and mentorship, which is different from a newly credentialed AT who is hired to work as the sole health care provider at a middle or high school. Will described the athletic training fellow positions as having a "formal curriculum and kind of a fellow education program in place." He also stated that fellows were provided in-services and were required to complete rotations at every athletic health care facility. Olivia's internship program was not as structured; it provided specific in-services that were not required of the full-time staff.

Within this study, the participants described 7 different onboarding strategies used by their organizations. Table 3 provides a list of the 7 strategies (ie, organization orientations, department orientations, department shadowing, informal mentorship, formal mentorship, continuing education workshops, and skill assessments) along with the frequencies with which the participants referenced each one. All participants reported using their organization's standard orientation, typically conducted by the office of human resources, as part of the onboarding process; moreover, 100% also offered a department-specific orientation. These 2 orientations differed starkly. The organization's standard orientation process involved basic employee information (eg, overview of medical benefits, process for requesting paid time off, process for obtaining a parking permit); this type of orientation provided information independent of job requirements or skills. Susan described the process at her company:

. . . within our company, we do have a new associate orientation that is more corporate. I would say it has little to no bearing on the day-to-day practice of what the athletic trainers will be doing. I mean, it's "here's how you sign up for benefits, here's how you get your e-mail." It's checklist-type things.

In contrast, department-specific orientations described by 100% of the participants tend to occur after the organization's standard orientation and address the policies and procedures of a specific department or unit. For example, a department-specific orientation for an outreach AT might include dress code expectations, referral protocols, electronic medical records training, and concussion protocol processes, but would not address site-specific issues such as an emergency

action plan or school board policies regarding student medications. Ned provided an example:

And once they are kind of on board, then the actual process of sports medicine orientation kind of falls to me. . . . I think what we really try to do is get them ready. . . . we have so much information to give them to help them succeed, . . . but I think what we want, what we try to do is let them know right from the get-go that they are not going to have everything immediately right there [on site]. Uh, information on the local stuff, the doctors, the referral partners, what they need to know, how they get [a patient] in as quickly as possible, their coworkers, who else is in their conference, I mean all those sorts of things.

The 2-step orientation process (ie, organization and department orientations) can be best explained by recognizing the multiple levels of administration (eg, chief medical officer, team physician, outreach supervisor, and athletic director) managing the outreach AT. On the other hand, a department orientation for a college can be more streamlined with fewer administrators and might include the aforementioned elements (eg, team physicians, electronic medical records training) in addition to site-specific processes such as emergency action plans or biohazard protocols. Will provided an example of site-specific training provided after the newly credentialed ATs attend the organization's orientation through the human resources and the athletics departments: ". . . they'll begin some core inservices for cupping, dry needling, manual therapy, etc, how to navigate our medical suites."

Job shadowing was a strategy used by 4 participants employed by medical centers and clinics to orient new employees to the different departments. In contrast, job shadowing was not described by either college participant. One example offered by Lucas described a process whereby a new employee would shadow a senior AT for 2 weeks before assuming duties at a new secondary-school site. Specifically, within medical centers, 2 participants (ie, Jill and Jim) provided new hires with opportunities to shadow different departments (eg, physical therapy, orthopedic surgery, emergency department, radiology). Jim described his organization's process:

We've got a 90-day process that is system-wide and governed by policies and procedures. They shadow one of our sports medicine physicians. They spend a day in surgery with our surgeons. They work in the rehab department shadowing some of our therapists.

Mentorship was reported by 80% (n = 8) of the participants, 7 from medical centers and clinics and 1 from the college setting. The type and formality of the mentorship program prescribed by employers varied greatly. Three participants (ie, Jim, Lucy, and Lucas) described a structured and tightly prescribed mentorship program that required regular meetings; 5 (ie, Fred, Ned, Olivia, Susan, and Tom) described a more fluid program with no specific expectations in terms of meeting frequency or content. Fred and Jim offered examples of the different mentorship programs. Fred described his medical center's informal mentorship program:

We set everyone up with a mentor and ask the mentors to set up the initial meeting, somewhere around 90 days after the new hire's first day. After that, they both can take the lead. It's really up to the 2 of them to do as much or as little as they want with it. It's nothing that we require. Jim offered an explanation of his clinic's formal mentorship program:

We have a couple of different mentors assigned to everybody. We've incorporated a skills assessment to see what they feel is a weakness so we can mentor that. We do a lot of weekly checks and meetings of the mentorship group so that they are in constant contact. Our goal is to not let new hires feel like they're alone.

Nine of the 10 participants reported some form of ongoing education as part of the onboarding process. These educational activities ranged in format: (1) formal continuing education seminars, (2) monthly in-service meetings, and (3) presented case studies. The frequency of these formats ranged from once a year to monthly. Lucas, Olivia, Tom, and Will described regular meetings to communicate policies as well as discuss issues or difficult medical cases, whereas Jill indicated all of her employees attended a monthly journal club. Four participants (ie, Fred, Ned, Lucy, and Susan) performed an emergency skill check (eg, spineboarding, splinting, cardiopulmonary resuscitation) at 90 days of employment. Only 1 of the participants, Jim, required clinical skill assessments. He described the final part of his yearlong onboarding process:

We do a skills validation at the end of the year. It's a highrisk, low-frequency skill. It could be anything from an injury to an illness. We also ask the ATs to complete a 4-page selfassessment asking questions about their modality use, how they feel about evaluations, what they feel they need to work on. It makes it easier for us to develop an individualized program based upon needs.

#### DISCUSSION

The topic of transition to practice has been broadly investigated within athletic training from the viewpoints of educators,<sup>3,4</sup> supervisors of graduate assistant athletic trainers,<sup>5</sup> current students enrolled in professional athletic training programs,<sup>3,6</sup> and recent graduates of professional athletic training programs.<sup>1</sup> The purpose of this study was to describe the perceptions of supervisors of newly credentialed ATs and their onboarding experiences. Considering that 19% of athletic trainers work in a college or university, 18% in a secondary school, and 17% in a clinic or hospital setting, the potential to be hired as the only individual at a specific site where no direct mentorship can be provided is an imminent possibility.<sup>18</sup> As professional athletic training programs transition from a baccalaureate degree to a graduate degree, a comprehensive investigation into the transition to practice is warranted. Based upon the qualitative analysis of the results in this study, 3 themes best describe supervisors' perceptions of newly credentialed ATs: (1) newly credentialed ATs possess a strong knowledge base but struggle to transition knowledge to clinical practice skills and abilities, (2) newly credentialed ATs tend to have unrealistic or inaccurate job expectations, and (3) onboarding practices used to orient newly credentialed ATs are varied and not targeted to address reported skill and ability deficits.

#### **Characteristics of Newly Credentialed ATs: KSAs**

**Knowledge and Skills.** Most of the participants in this study perceived newly credentialed ATs as having a strong knowledge base but believed they struggled to apply

contextual thinking to clinical situations. Multiple participants referenced black and white knowledge or textbook approaches. Perry's cognitive schemes<sup>19</sup> defines this phenomenon as *dualism*, which is the foundational stage in describing how students between the ages of 18 and 23 years think. According to Perry, students who are in dualism believe that knowledge is absolute and their worlds are dichotomous.<sup>19</sup> For dualistic minds, analytical thinking requiring more than 1 point of view is confusing and frustrating; thus, their decisions tend to be based upon what an authority figure or textbook states. Certainly having a strong knowledge base is important within Perry's cognitive schemes; however, it is most ideal to build upon established dualistic thinking and challenge learners to a place of relativism before graduation. Within relativism, the third stage in Perry's schemes, students realize the contextual nature of knowledge and develop analytical skills to guide clinical decision-making.<sup>19</sup> Educators who present case studies or demonstrate situations in which conventional practice fails either through real patients or simulations are using practices that challenge the dualistic mind to move toward more advanced contextual thinking. As athletic training programs progress to the graduate degree, so too must its educators. Ongoing training of faculty and preceptors that is based in educational theory is of critical importance to appropriately train future ATs to think contextually.

The inability to translate knowledge into clinical skills is not solely observed in athletic training. Krozek12 reported a preparation gap in nursing graduates relating to the inability to translate theory into practice. This phenomenon is similar to what was described by the participants in the current study. As illustrated in the Figure, newly credentialed ATs tend to possess knowledge, but their knowledge can be rigidly applied. Massie et al<sup>16</sup> reported similar findings when employers of new graduate full-time ATs were surveyed over a decade ago, indicating this may not be a generational issue. If this is the case, the inability to translate knowledge into skill is not going to disappear with the influx of the current generation entering college. This suggests the necessity of employers to frame their complaints with potential solutions. For example, despite the negative perception of newly credentialed AT's skills, only 1 participant (ie, Jim) implemented a year-end scenario to assess minimum competence, which has been used successfully within nursing to improve clinical skill within entry-level employees.20

**Abilities.** Supervisors also reported that newly credentialed ATs were unprepared to handle the soft aspects of the job such as proper communication and conflict resolution. Massie et al<sup>16</sup> reported similar findings and recommended professional programs address interpersonal skills more thoroughly in preparing newly credentialed ATs. These same concerns were echoed in a study conducted by Thrasher et al,<sup>5</sup> who stated that communication was the most common weakness in new graduate ATs. We found it interesting that the majority of supervisors indicated that newly credentialed ATs reported their professional studies included little to no experience providing direct patient education or patient-care instruction to parents and coaches. Yet, only 2 participants implemented structured mentorship into their onboarding programs to address this weakness cited not only in the literature<sup>5,16</sup> but also within the current study.

All of the participants in our study described deficits in the abilities of newly credentialed ATs. Nine participants provided examples illustrating an inability to practice patient prioritization and manage a large volume of patients efficiently and effectively. Supervisors reported that newly credentialed ATs remained focused on 1 patient at the expense of others, thus demonstrating an inability to manage multiple patients at once. Eight of the participants attributed this to ineffective time management skills, which was similarly reported by Mazerolle et al.<sup>4</sup> Moving forward, immersive clinical education experiences would benefit from providing students opportunities to challenge time management and patient prioritization. Similar to the model proposed by Dreyfus et al,<sup>21</sup> real-world experiences that encourage active testing in a variety of situations are paramount to moving a student's skill acquisition from advanced beginner to competent practitioner.

When considering the reported weaknesses described in this study and within the literature,<sup>5,16</sup> there appears to be a disconnect between knowledge and practice as described by Dreyfus et al.<sup>21</sup> The use of a series of multidimensional scenarios, similar to the format used in objective structured clinical examinations (OSCEs), may afford educators the opportunity to assess students before commencing immersive experiences, thereby verifying clinical competency and proficiency. The OSCEs have been used to predict clinical performance in many other professional programs preparing a range of health care providers including physicians, nurses, and pharmacists and have been shown to be an objective, valid, and reliable assessment tool. <sup>22,23</sup> Instead of presenting a singular scenario aimed at 1 facet of patient care (eg, physical exam), OSCEs apply a series of scenarios and expose students to multiple skills (eg, physical exam, medical documentation, patient education, coach communication, professional collaboration) in different contexts (eg, emergent versus nonemergent) across simulated patient stations. This type of assessment provides situational application and assessment of skills and abilities and has been shown to be an effective modality for assessing clinician attitudes, problem-solving skills, communication skills, technical skills, and patient-care skills.<sup>22,24</sup>

A qualitative study<sup>25</sup> of undergraduate nurses found that preclinical training in emotional intelligence aiming to improve resiliency and other nontechnical abilities enhanced the nursing students' coping skills, adaptability, empathy, interpersonal relating, and teamwork during their clinical experiences. This appears to be a deficit that could also be addressed with immersive clinical education experiences, as required by the new Commission on Accreditation of Athletic Training Education<sup>26</sup> (CAATE) accreditation standards.

## Characteristics of Newly Credentialed ATs: Unrealistic Job Expectations

Supervisors frequently described unrealistic expectations in regard to the job expectations of a full-time AT. Supervisors felt some newly credentialed ATs did not fully understand the requirement of second shift in scholastic settings and the expectation to work weekends and some holidays. Although not a direct comparison with the current study, a 2011 study of entry-level ATs working in ambulatory settings reported that ATs are attracted to first-shift settings and shorter work hours.<sup>27</sup> Thus, the reports of the participants in this study may not be unique to the generation. In fact, it may be a reflection of the quality of life imposed by the jobs (eg, extensive travel, weekends, late hours).

The immersive clinical education experiences, required by CAATE,<sup>26</sup> provide an opportunity for preceptors to offer students an unobstructed view of the workweek. This type of transparency will provide future graduates the opportunity to grasp more fully the time demands required of the profession. Additional objectives worth incorporating into immersive experiences include providing experiences working holidays and spring break as well as explaining compensation contracts (eg, difference between salary and hourly compensation). Another example is explaining the value of in-service meetings or journal clubs. Providing a more comprehensive integration into the clinical and work settings, addressing more than knowledge and clinical skill, may benefit future students and their subsequent awareness of job expectations.

Employers should also strive to parallel the transparency provided through immersive clinical experiences. Providing candidates a view of weekly hours by sport season, a description of how to request vacation or sick time, an explanation of a contingent workforce, and a breakdown of payment, whether it be salary or hourly and how or whether overtime or holiday pay is included is ideal. This type of transparency is documented in business best practices as a trademark of good onboarding for new employees as a means to reduce employee turnover.<sup>28,29</sup>

#### **Onboarding Strategies**

Onboarding is a process of orienting new employees to job expectations within the company over an extended period of time while developing resources to best succeed in their roles.<sup>12</sup> All participants reported having an orientation process; however, only a few participants structured orientation to address the newly credentialed ATs' weaknesses in skills and abilities. For example, all supervisors described orientations encompassing both organization and department policies and expectations. This process addresses the knowledge of policies and procedures and can typically last from 1 day to a week.<sup>1,3–5</sup> However, this fails to mirror the onboarding process described by Slate et al.<sup>30</sup> According to a 9-year longitudinal study<sup>30</sup> identifying best practices for onboarding nurse graduates, a program lasting a minimum of 12 weeks is recommended,<sup>30</sup> but a program encompassing 9 to 12 months is ideal to achieve optimal outcomes.<sup>13</sup> Documented outcomes from well-structured onboarding programs include improved clinical performance and patient care,<sup>12,13,30,31</sup> improved interprofessional communication,<sup>30</sup> enhanced critical thinking skills,<sup>30</sup> decreased attrition,<sup>13,15</sup> and increased employee satisfaction.13,14

Less than half of the participants reported using a form of shadowing within their health care system as a part of their onboarding process. Of those who reported using shadowing, a variety of shadowing opportunities were referenced, such as spending a day or more with physical therapists, surgeons, family physicians, or senior ATs working at a similar setting (eg, high school, club sports). These experiences have been demonstrated to be crucial in the development of relationships and referral networks within the health care system.<sup>11</sup>

Mentorship programs, whether informal or formal, offer a relationship between an inexperienced and a veteran employee to provide support and guidance as the AT transitions to practice.<sup>2</sup> Informal mentorship programs typically lack structure but allow for flexibility; a little less than half the supervisors reported using informal mentorship programs, which is similar to the results reported by Walker et al.<sup>1</sup> In this study, informal mentorship programs meant that mentors could be chosen or assigned and did not have set requirements for communication, whereas formal mentorship was prescribed in terms of who, where, and at what time. Although fewer participants implemented formal mentorship programs, the practice of formal mentorship is supported by Slate et al.<sup>30</sup> who found that frequent meetings between the mentorship team resulted in orientation goals being met and difficulties being effectively addressed. This idea has been echoed by other researchers in athletic training who have indicated quality orientations and mentorship offered by supervisors contributed to newly credentialed ATs' confidence and success within the transition to practice.<sup>1,3-5,10,11</sup> Within nursing research, formal mentorship is at the forefront of onboarding best practices. Duchscher<sup>20</sup> found that many new nursing graduates struggled without access to educators and peers to provide emotional support, feedback, and consultations. However, those who had access to a formal support network felt it thrusted them forward in their development. In fact, new nursing graduates reported a hesitancy to pursue their own mentors because they did not want to seem ignorant and inexperienced.<sup>20</sup> Thus, having consistent and formally prescribed mentorship resulted in less frustration and a greater overall satisfaction in the process.<sup>20</sup>

The results of this study described monthly meetings or inservices in the form of journal clubs or employee-led labs. This type of ongoing structured communication or educational programming was found to be beneficial in the onboarding processes of nurses. Dyess and Sherman<sup>32</sup> indicated new nurses felt less alone when provided direct, formal, and transparent communication with leadership. Regular structured meetings allowed new nurses to receive constructive feedback from organizational leaders and fostered professional dialogue with peers, resulting in increased confidence and a decreased sense of abandonment<sup>32</sup> as well as improved interprofessional communication.<sup>20</sup> Adding an educational component such as case studies or journal discussions to regular meetings has the potential to not only address confidence and connectedness, but in some cases, to serve as a method to practice or advance skill and ability.

One supervisor required skill assessments during the first year of practice to improve proficiency in serious low-frequency events. Proficiency assessments can help identify weaknesses in regard to clinical skills and abilities before the commencement of clinical practice. In fact, research within athletic training<sup>11</sup> has reported emergency action plan simulations as the most useful strategy in orientation programs, yet less than 20% of those surveyed actually encountered a skill simulation. Duchscher<sup>20</sup> emphasized the importance of exposing health care professionals to a variety of clinical scenarios to develop skills and knowledge while receiving feedback in a safe environment. Just as clinicians use outcomes to improve patient care and educators use outcomes to strengthen educational programming, it is not absurd to expect employers to use outcomes to inform their onboarding processes. Considering the results of this study, it is highly recommended that employers adopt a more specific onboarding process that includes (1) job shadowing to develop professional relationships, (2) a prescribed formal mentorship program, (3) monthly or quarterly meetings with supervisors or administrators including case presentations, and (4) prepractice and annual skills simulations and assessments. Such a program would provide scaffolding and mentorship to improve skills and abilities. It would most likely decrease attrition and improve employee satisfaction. On the basis of nursing literature,<sup>14,15,30,31</sup> it appears that a comprehensive and specific onboarding process could reduce potential negligence as well.

#### LIMITATIONS

This was a qualitative study conducted with supervisors of newly credentialed ATs throughout the Midwest; the results of the study should not be generalized to all supervisors of newly credentialed ATs. This study also used purposive sampling, which included 7 supervisors employed within medical centers. This could have resulted in oversampling of 1 setting, which may have led to premature data saturation.

Future research should address a more diverse geographical location as well as include multiple viewpoints, including those of newly credentialed ATs. Long-term studies should attempt to evaluate the effectiveness of elements of onboard-ing processes in relation to medical errors, employee satisfaction, and retention.

#### CONCLUSIONS

Newly credentialed ATs have a strong knowledge base. However, they lack the ability to use their knowledge contextually in guiding their skills and abilities. Educators can address these perceived deficits by developing OSCE-type assessments to challenge contextual thinking and encourage the application of skills and abilities in a series of different situations. It also appears that newly credentialed ATs struggle to grasp the nuances of the full-time work. A dual approach adapting immersive clinical experiences to provide an unobstructed view of the work world along with more specific information provided by employers as part of a structured onboarding process can be used to create more realistic expectations.

Whereas educational changes can be made to immersive experiences and assessment strategies, employers must make changes to their onboarding processes as well. Data from this study and previous studies highlight the complexities that emerge when athletic trainers function in settings with multiple administrators. The risk of these settings is that orientation and onboarding processes may not be narrowly tailored to the needs of the employees and their clinical setting. The ability to rely upon graduate assistantships to develop "universal" onboarding to the profession is inevitably an annulled option. Thus, employers must adapt and provide a more thorough and selectively specific onboarding program to orient newly credentialed ATs not only to their chosen career but also to their organization, department, and specific clinical site. Furthermore, onboarding processes should be different for newly credentialed ATs, most especially in the secondary setting, where newly credentialed ATs have

reported the most dissatisfaction among new hires when assessing the usefulness of their orientation processes.<sup>11</sup> A yearlong onboarding<sup>13</sup> process offering multi-department shadowing opportunities to facilitate relationships, formal mentorship<sup>1,30</sup> to encourage proper communication, continuing education<sup>11</sup> to encourage collaboration and the continuation of knowledge, targeted simulations<sup>11,20</sup> to address weaknesses in skills and abilities, and assessments<sup>20,21</sup> to improve high-fidelity skills can be beneficial for improving a newly credentialed AT's transition to practice. In doing so, a work environment to improve job satisfaction and reduce attrition and patient errors is more likely. As demonstrated by nursing,<sup>13</sup> these deficiencies can be addressed through a yearlong onboarding process structured and tailored to address the needs of a new employee.

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#### Appendix. Semistructured Interview Guide

- 1. What is your title? Would you please describe your current position within your company?
- 2. How long have you been in your current role within this company?
- 3. How many years of experience do you have supervising athletic trainers?
- 4. How many athletic trainers do you supervise currently? How many of those are newly credentialed [definition provided]?
- 5. On average, how many athletic trainers do you hire per year? Of those, how many are newly credentialed?
- 6. What is the typical job title held by a newly credentialed athletic trainer?
  - a. Where is the typical newly credentialed athletic trainer placed during his/her first year of practice or employment?
- 7. Can you share the expectations you have for newly credentialed athletic trainers?
  - a. What knowledge, skills or abilities have you found to be strong in newly credentialed athletic trainers? Please offer examples.
  - b. On the other hand, what knowledge, skills, and abilities have you found to be lacking in newly credentialed athletic trainers? Please offer examples.
- 8. What do you feel is the most challenging aspect for newly credentialed athletic trainers as they transition to practice?
- a. In regard to patient care, what, if any, impact does this have?
- 9. How do you prepare newly credentialed athletic trainers before they begin their roles as athletic trainers?
  - a. What are the strengths of this approach?
  - b. Areas you would like to improve?
- 10. Can you describe the orientation or onboarding process newly credentialed athletic trainer go through during their first year of employment?
  - a. What about the mentorship process?
  - b. [if mentorship is provided] How are mentors matched with their mentors?
- 11. How long does it typically take for newly credentialed athletic trainers to become successfully orientated to their new roles?
- 12. How would you describe a successfully oriented newly credentialed athletic trainer?
- 13. What suggestions would you make to improve the education athletic trainers receive?
- 14. Do you have any additional information you would like to share with us regarding newly credentialed athletic trainers?