### Part II: Examining Stakeholder Perceptions of the Postprofessional Clinical Doctoral Degree in Athletic Training

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**Context:** As health care education evolves, so do the required educational degree levels. In athletic training, the master's degree has traditionally represented the advanced degree option, but clinical doctoral education is relatively new and not well understood.

**Objective:** To explore stakeholders' perceptions of the postprofessional clinical doctorate in athletic training (DAT).

Design: Population survey.

Patients or Other Participants: Survey participants included 254 faculty members, 150 administrators, 334 clinicians, and 131 employers.

Intervention(s): Four surveys designed to gauge perceptions of the DAT.

Main Outcome Measure(s): Descriptive statistics were calculated to describe perceptions. Qualitative data from openended questions were analyzed inductively and organized into themes.

**Results:** Faculty and administrators were more familiar with various degrees (71.8%–82.3%), whereas clinicians and employers indicated no or little (52.5%–58.0%) familiarity with clinical doctoral degrees. There was discord between faculty and administrators regarding the viability of the DAT as an alternative to the postprofessional master's degree. Faculty believed the DAT would help advance knowledge and clinical skills among practitioners. Administrators believed in increased education and clinical expertise of faculty, increased productivity, and an alternative avenue for hiring faculty for those with a DAT. Hiring concerns, research productivity, friction among degree holders, program expense, and lack of understanding of the degree were negative implications reported by administrators. Clinician interest in pursuing a DAT was divided (47.5% interested, 52.5% not interested). Reasons for pursuing the DAT included increased clinical ability, desire to transition to a faculty role, and advancement. Employers were divided as to whether they would hire a DAT. Employer concerns included lack of adequate compensation and lack of significant difference in clinician skills.

**Conclusions:** Support for the DAT by all stakeholders exists. However, there are concerns and a general lack of understanding about the degree that should be addressed among all stakeholder groups.

Key Words: Advanced-practice degree, DAT, qualitative, education

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#### **Full Citation:**

Huxel Bliven KC, Potteiger K, Baker RT, Pitney WA. Part II: examining stakeholder perceptions of the postprofessional clinical doctoral degree in athletic training. *Athl Train Educ J*. 2018;13(3):205–218.

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### **KEY POINTS**

- Faculty, administrator, clinician, and employer stakeholders were generally familiar with and supportive of the doctorate in athletic training, particularly its role in providing advanced patient care knowledge and skills.
- A lack of clarity about the doctorate in athletic training raised stakeholder questions regarding institutional resources and support, employment opportunities, and adequate salary compensation.
- Stakeholders believed the doctorate in athletic training was a worthwhile alternative to the postprofessional master's degree in athletic training in preparing advanced practice clinicians and clinician-scholars.

### INTRODUCTION

The Athletic Training Strategic Alliance voted in 2015 to transition athletic training professional education from the baccalaureate to the master's level.<sup>1</sup> This decision not only affects professional, or entry-level, education, but also postprofessional education in our discipline. Historically, athletic trainers completed professional coursework at the baccalaureate degree level, and the master's degree represented advanced training and education. In response to changing health care and education climates, athletic training education has elevated the professional entry-level degree to the master's level. The transition to a professional entry-level master's degree has raised questions about the appropriate degree designation for advanced-practice, or postprofessional, athletic training education. Although athletic training professional societies and credentialing bodies have yet to establish clear recommendations and guidelines regarding advancedpractice or postprofessional education, several postprofessional clinical doctoral degree and residency programs have emerged to meet the need of professionals seeking advanced knowledge and skills.<sup>2</sup>

Until recently, athletic trainers seeking doctoral degrees earned an academic doctoral degree (eg, doctor of philosophy [PhD], doctor of education [EdD]) in a related area (eg, curriculum and instruction, education, exercise science, kinesiology) because no discipline-specific academic doctoral degrees existed. Although academic doctoral degrees are the highest degrees awarded by universities and are the most widely accepted degree requirement for appointment at institutions of higher education that have expectations for teaching and disseminating research in an area of expertise,<sup>3-6</sup> other professions, such as nursing, have recognized the need for and mandated doctorally prepared advanced-practice clinicians and clinical faculty through clinical doctoral degrees that are distinctively different from academic doctoral degrees.<sup>7</sup> This evolution in the education of health care providers has led to confusion and a lack of knowledge and clarity about the clinical doctoral degree.<sup>8,9</sup> Clinical doctoral degrees have existed in the United States since the early 1700s.

The first medical doctoral degrees (eg, doctor of medicine [MD]) were granted to physicians.<sup>10</sup> Over the past 20 years, other health care professions (eg, physical therapy, occupational therapy, audiology) have transitioned the degree requirements for professional entry-level training and education from technical school to baccalaureate degrees to master's degrees and finally to clinical doctoral degrees.<sup>5,9</sup>

Although the majority of clinical doctoral degree programs are entry-level professional programs, advanced-practice, postprofessional clinical doctoral degrees exist, such as the doctorate of nursing practice.<sup>7,11</sup> As the athletic training profession advances its professional degree, much can be gained from examining routes taken by other health care professions, including nursing, occupational therapy, and physician assistantship, regarding the advancement of postprofessional education.<sup>4,7,9,11,12</sup> These professions examined the impact of educational change within their discipline and reported a shortage of advanced-practice, doctorally prepared professionals.<sup>13,14</sup> Therefore, the clinical doctorate was proposed as a potential solution for this issue.<sup>13,14</sup> Other purported benefits of the clinical doctoral degree included the development of practitioners with clinical expertise and greater knowledge and understanding who could solve complex health care problems, practice independently, and provide expert patient-centered care.<sup>15-17</sup> In addition, the clinical doctoral degree may lead to increased salary, career enhancement, and improved public recognition.<sup>17–19</sup> Potential concerns of clinical doctoral education include the perception of degree inflation<sup>7,15,20</sup> or a degree unsuitable for researchers or members of the academy.<sup>21,22</sup> The usefulness of clinical doctoral education is dependent on the benefits provided as well as how clinical doctoral degrees are viewed within and outside of a profession.<sup>9,21</sup> As the trend of offering advancedpractice, postprofessional doctor of athletic training (DAT) degrees continues,<sup>2</sup> it is imperative to examine other health care professions and include important athletic training stakeholders with varied perspectives, such as academic and clinical practice, in curricular and accreditation decisions to ensure optimal outcomes.<sup>5,7,9,20,22</sup> Therefore, the purpose of the current study was to explore stakeholder perceptions of the DAT.

### METHODS

### Participants

We surveyed 4 stakeholder groups to explore perceptions from the academic and clinical practice perspectives. Athletic training faculty and academic administrators represented 2 stakeholder groups from academic institutions; athletic training clinicians and employers of athletic trainers represented 2 stakeholder groups from the clinical practice setting. E-mail distribution lists were obtained from the National Athletic Trainers' Association (NATA) using a multipronged approach described below. Identified contacts from the 4 stakeholder groups were e-mailed an invitation to complete the study survey.

The athletic training faculty ("faculty") stakeholder group comprised individuals who self-identified their primary position as faculty during the NATA membership renewal or were listed as faculty in the Commission on Accreditation of Athletic Training Education (CAATE) directory. After redundant entries were removed, the faculty stakeholder group contained 1322 contacts.

The academic administrator ("administrators") stakeholder group comprised individuals identified as college/university department chairs, deans, provosts, or presidents in the CAATE directory. After redundant entries were removed, the academic administrator stakeholder group contained 1112 administrators.

Athletic training clinicians ("clinicians") were individuals who self-identified their primary position as clinical during NATA membership renewal in one of the following categories: college/university, secondary school, clinic, hospital, professional sports, industrial/occupational/corporate, health/fitness/performance enhancement clinic, amateur/vouth sports, or military/law enforcement. From this group, a random sample of 5000 clinicians, stratified proportionally by employment setting, was obtained. The distribution of clinicians in each of the identified categories was as follows: secondary school (n = 1565, 31.3%), college/university (n =1550, 31.0%), clinic (n = 945, 18.9%), hospital (n = 290, 5.8%), industrial/occupational/corporate (n = 260, 5.2%), professional sports (n = 155, 3.1%), military/law enforcement (n = 130, 2.6%), health/fitness/performance enhancement clinic (n = 85, 1.7%), and amateur/youth sports (n = 20, 0.4%).

The employers of athletic trainers ("employers") stakeholder group was generated using a contact list of individuals and companies who advertised positions in the NATA career center between 2012 and 2015. After redundant entries were removed, the employer group contained 2047 contacts.

### Instrumentation

Survey Development. To assess stakeholder perceptions, we developed 4 surveys based on previous work of professional and postprofessional clinical doctoral degree programs across various health care professions.<sup>7,18,19,22–24</sup> Definitions of degree programs provided in our companion paper<sup>2</sup> were used and operationalized in each survey to standardize language and minimize confusion related to terminology. Each survey contained distinct items to capture specific perceptions of the stakeholder group. For example, faculty were asked to comment on specific curricular questions designed to compare the postprofessional master's degree with DAT, administrators were asked specific items related to institutional support and resources, clinicians were asked about their personal views and impact of the DAT, and employers were asked to focus on items related to hiring practices. In addition, common items were included across all surveys to allow for comparisons among stakeholder groups. The following content areas appeared in all surveys: (1) academic degree programs, (2) curriculum and instruction, (3) characteristics/traits of a graduate with a DAT, (4) influence

on an individual clinician's patient care, (5) postgraduation employment opportunities, and (6) benefits to the athletic training profession. Surveys were developed in Qualtrics Survey Software (Qualtrics Inc, Provo, UT) using logic and branching features to present items based on the participant's previous response. Items in each content area were answered using a 7-point Likert scale (1 = strongly disagree, 7 = strongly)agree). Content areas also contained open-ended response fields to allow participants to express their perceptions of the DAT relevant to the specific content area. Each survey included a demographic section to determine the characteristics and composition of participants in each stakeholder group. Items related to respondent demographics included individual (eg, age, sex, race/ethnicity, geographic location, highest level of education completed) and employment (eg, institution's Carnegie classification, employment setting, primary job responsibilities) characteristics.

Survey Validation. After development, we used the content validity index (CVI) to evaluate the content and face validity of surveys before distribution.<sup>25</sup> The steps in the CVI were completed using relevance for content validity and clarity for face validity. For content validity, each item was rated on a 1 (not relevant) to 4 (highly relevant) scale; for face validity, each item was rated on a 1 (*not clear*) to 4 (*very clear*) scale. Twenty expert reviewers, 5 from each stakeholder group, were identified based on their previous survey research experience or experience with doctoral education and asked to complete our validation instrument. In addition to scoring survey items, the expert reviewers were given the opportunity to provide qualitative feedback regarding the clarity and relevance of each item. An item with a CVI score of 0.78 or higher for each category (content and face validity) was deemed acceptable. Items not meeting the minimum CVI score were either altered to improve clarity or omitted from the survey.

### Procedures

We used purposeful and snowball sampling. Contact lists were generated, as described above, for each stakeholder group. Email invitations were sent to contacts in all stakeholder groups in July 2016. The invitations contained study information and a Web address link to the online survey. Three reminders were sent every 2 weeks until the surveys were closed in mid-September 2016. Additionally, the invitation asked contacts to forward the e-mail with the study information and survey link to individuals in the same stakeholder group. Informed consent was implied if the individual opted to complete any of the survey. The study underwent review and approval by institutional review boards at affiliated institutions.

### **Data Analysis**

Data were exported from the online platform for quantitative and qualitative analyses. Descriptive statistical analyses of aggregate data from survey responses were performed using SPSS version 23 (IBM Corp, Armonk, NY). Data from partial and full survey completion were used. Data are reported as mean  $\pm$  SD or frequency count (%), as indicated.

An inductive content analysis<sup>26</sup> was performed on the openended comments for each question. The textual data were examined and conceptual labels were applied to capture the meaning of the comment. The conceptual labels were then

Table 1. Survey Distribution, Access, and Response Rate for Each Stakeholder Group
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		No. (% Response Rate)			
	Faculty	Administrators	Clinicians	Employers	
E-mails sent	1322	1112	5000	2047	
Undeliverable e-mails	20	12	29	126	
Survey accessed	427 (32.3)	234 (21.1)	661 (13.2)	247 (12.1)	

organized into themes by basic premise and, when appropriate, collapsed into higher-order themes.<sup>27</sup> Multiple-analyst triangulation was used to address issues of trustworthiness with the analysis.

### RESULTS

### Participants

The number of initial invitation e-mails sent, e-mails returned as undeliverable, survey access rate, and response rate are reported for each stakeholder group in Table 1. Overall, the survey access response rate ranged from 12.1% by employers to 32.3% by faculty (Table 1). Of the surveys accessed, the survey completion response rate (partial or full) was 59.5% (n = 254) for faculty, 64.1% (n = 150) for administrators, 50.5% (n = 334) for clinicians, and 53.0% (n = 131) for employers.

### Demographics

The demographic information for each stakeholder group is presented in Table 2. Participants who identified as clinicians represented the youngest stakeholder group (29.5  $\pm$  6.1 years), followed by faculty (42.4  $\pm$  9.8 years), employers (43.4  $\pm$  10.0 years), and administrators (54.2  $\pm$  8.4 years). Women accounted for the majority of participants across all stakeholder groups except employers, who were primarily male (69.2%). Regardless of stakeholder group, participants were primarily white/Caucasian (range, 84%–91%). Faculty

who reported having a doctoral degree (n = 184 of 257, 71.6%) most commonly had earned an academic doctoral degree (PhD, 68.4%, or EdD, 21.9%). Of the faculty and clinicians who reported having earned a master's degree, the majority had completed a non-athletic training-specific degree program (n = 31 of 71, 43.7%, and n = 137 of 261, 52.5%, respectively) followed by an accredited postprofessional athletic training degree program (n = 25 of 71, 35.7%, and n = 65 of 261, 24.9%, respectively). Almost half (n = 68 of 149, 45.6%) of administrators held a clinical credential (eg, athletic trainer, physical therapist, occupational therapist, physician assistant) and a doctoral degree (n = 140 of 150, 93.3%). In addition to holding the athletic trainer credential, 42.3% (n = 142 of 336) of clinicians held at least one other credential (eg, strength and conditioning, physical therapist, teacher, physician assistant, emergency medical technician). Most employers reported having earned a master's degree, and most commonly held the athletic trainer (n = 117 of 127, 92.1%), strength and conditioning specialist (n = 31 of 127, 24.3%), or other (n = 26 of 127, 20.5%) credential. There was representative distribution of years of experience (<5 >25 years) for one's primary clinical credential in the fac and employer groups, but 84.2% (n = 282 of 335) of clinic reported 9 years or less of clinical experience.

### Familiarity with Degree Programs

The majority of participants from all stakeholder groups were somewhat or very familiar with the professional master's

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Table 2. Participant Demographics by Stakeholder Group

	Faculty	Administrators	Clinicians	Employers
Age, mean ± SD (range), y	42.4 ± 9.8 (25–68)	54.2 ± 8.4 (32–71)	29.5 ± 6.1 (22–65)	43.3 ± 10.0 (26–68)
		No	. (%)	
Sex				
Male	121 (47.3)	71 (48.6)	136 (40.5)	90 (69.2)
Female	135 (̀52.7)́	75 (̀51.4)́	200 (̀59.5)́	40 (30.8)
Highest degree earned				
Bachelor's	2 (0.8)	0 (0.0)	52 (15.5)	12 (9.2)
Master's	71 (27.6)	10 (6.7)	261 (77.7)	83 (63.4)
Doctoral	184 (71.6)	140 (93.3)	23 (6.8)	36 (27.5)
Experience with primary clinic	al credential, y <sup>a</sup>			
>5	5 (1.9)	NA	137 (40.9)	3 (2.4)
5–9	35 (13.6)	NA	145 (43.3)́	17 (13.5)
10–14	60 (23.3)	NA	32 (9.5)	21 (16.7)
15–19	52 (20.2)	NA	10 (3.0)	25 (19.8)
20–24	40 (15.6)	NA	6 (1.8)	21 (16.7)
<25	65 (25.4)́	NA	5 (1.5)	39 (30.9)́

Abbreviation: NA, not applicable.

<sup>a</sup> Administrators were not asked about experience with primary clinical credentials.

Figure 1. Distribution of stakeholders' familiarity with degree programs.



degree (faculty = 95.0%, administrators = 96%, clinicians = 84.9%, employers = 89.4%), postprofessional accredited master's degree (faculty = 94.9%, administrators = 87.0%, clinicians = 80.4%, employers = 84.8%), and academic doctoral degrees (faculty = 90.4%, administrators = 93.4%, clinicians = 59.3%, employers = 63.6%; Figure 1). Across all stakeholder groups, participants were not as familiar with professional clinical doctoral degrees or postprofessional clinical doctoral degrees. Most clinicians and employers had no or little familiarity with either of the clinical doctoral degrees (professional clinical doctoral degree = 57.2% and 52.5%, respectively; postprofessional clinical doctoral degree = 58.0% and 52.1%, respectively). Most faculty and administrators were somewhat or very familiar with clinical doctoral degrees (professional clinical doctoral degree = 71.8% and 82.3%, respectively; postprofessional clinical doctoral degree = 73.2% and 73.4%, respectively).

#### **Academic Institution Characteristics**

Faculty and administrator stakeholder groups answered questions about the academic institution in which they worked and the types of master's and doctoral degrees currently offered by the academic divisions (Table 3). Most faculty and administrators indicated their institution's Carnegie classification was a baccalaureate (23.4% and 20.3%, respectively), master's (30.5% and 43.8%, respectively), or doctorate-granting (42.5% and 33.4%, respectively) college or university. Institutions were equally distributed among rural, suburban, and urban locations. Faculty and administrators who indicated their academic division did not currently offer a master's degree, professional or postprofessional, or a clinical

doctoral degree were asked to indicate the likelihood they would offer a professional master's degree in athletic training (master of athletic training [MAT]) or DAT. Overall, faculty and administrators perceived a high likelihood that their academic division would offer an MAT (likely, 11.4% and 22.7%, respectively; very likely, 58.2% and 49.6%, respectively), but the majority indicated it was unlikely (20.3% and 24.5%, respectively) or very unlikely (49.7% and 50.9%, respectively) that their academic division would offer a DAT (Figure 2).

### Faculty Perceptions of Accredited Postprofessional Master's Degree Programs Compared with Doctor of Athletic Training Degree Programs

Faculty perceived that the DAT would be a worthwhile alternative to the postprofessional master's degree for individuals seeking to advance their knowledge (60.3% strongly agreed, agreed, or somewhat agreed), would prepare students to be better consumers of current evidence (70.8% strongly agreed, agreed, or somewhat agreed) and quality evidence (71.2% strongly agreed, agreed, or somewhat agreed), and would help produce more knowledge relevant to clinical practice (70.7% strongly agreed, agreed, or somewhat agreed; Figure 3). Overall, faculty did not perceive that the DAT would decrease research productivity of faculty or graduate students. Faculty perceptions of whether the DAT was more sustainable to the profession was varied (38.1% strongly agreed, agreed, or somewhat agreed; 31.0% neither agreed nor disagreed; 31.0% strongly disagreed, disagreed, or somewhat disagreed).

Table 3.	Academic Institution	Characteristics	of Faculty an	d Administrator Participants
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	No. (%)	
	Faculty	Administrators
Carnegie classification		
Associate's colleges	6 (2.4)	2 (1.0)
Baccalaureate college	59 (23.4)	39 (20.3)
Master's colleges/universities	77 (30.5)	84 (43.8)
Doctorate-granting universities	107 (42.5)	64 (33.4)
Special focus institutions	3 (1.2)	2 (1.0)
Tribal colleges	0 (0.0)	1 (0.5)
Location		
Rural	82 (32.3)	47 (31.8)
Suburban	90 (35.4)	52 (35.1)
Urban	82 (32.3)	49 (33.1)
Current degree offerings		
Professional master's degree in athletic training (eg, master of athletic		
training [MAT])	64/115 (55.6)	38/75 (50.7)
Accredited postprofessional master's degree in athletic training (eg,		, , ,
master's of science in athletic training)	30/114 (26.3)	31/75 (41.3)
No master's degree in athletic training offered	141/256 (55.1)	120/195 (61.5)
Academic doctoral degree (eg, doctor of philosophy [PhD], doctor of		
education [EdD])	104/255 (40.8)	81/199 (40.7)
Clinical doctoral degree, professional or postprofessional	103/256 (40.2)	89/199 (44.7)
Doctor of athletic training (DAT)	8 (7.8)	3 (3.4)
Doctor of audiology (AuD)	18 (17.5)	10 (11.4)
Doctor of nursing practice (DNP)	49 (47.6)	46 (52.3)
Doctor of occupational therapy (DOT, OTD)	31 (30.1)	24 (27.3)
Doctor of pharmacy (PharmD)	18 (17.5)	15 (17.1)
Doctor of physical therapy (DPT)	82 (79.6)	61 (69.3)
Doctor of psychology (PsyD)	15 (14.6)	13 (14.8)
Other	10 (9.7)	10 (11.4)

Faculty members were asked to provide their opinion on the importance of the accredited postprofessional master's degree in athletic training. From this question, 4 themes emerged: (1) the postprofessional master's degree would become outdated with the upcoming transition of the educational degree, (2) advanced training produced better clinicians, (3) postprofessional degrees were a "bridge" to terminal academic degrees, and (4) there was anger or

concern for the future of athletic training education. For example, faculty responses in support of the theme of advanced training produces better clinicians suggested that they thought the postprofessional master's degree "provides students an opportunity to add to the knowledge gained during their undergrad work" and "these degree programs have been an important component in the professional transition to practice." One faculty member shared a

### Figure 2. Perceptions regarding the likelihood of future athletic training degree offerings by institutions.



Figure 3. Faculty perceptions of comparing a postprofessional master's degree with a postprofessional clinical doctor in athletic training degree. Abbreviation: AT, athletic training.

Be more sustainable to the profession of athletic training Worthwhile alternative to postprofessional master's degree Decrease the research productivity by AT faculty Prepare students to have a focused line of research inquiry Decrease the research productivity by AT graduate students Prepare students to be better consumers of quality evidence Prepare students to be better consumers of current evidence Produce more knowledge relevant to clinical practice

■ Strongly disagree



viewpoint on the importance of the postprofessional experience:

Disagree

Historically, the PP MS [postprofessional master's degree] degrees have been where students are learning the process of research and are conducting limited research projects. These have been a great springboard for students wishing to advance their degrees with a PhD, but seem to have limited value in assisting with clinical practice (as most have relied heavily on the graduate assistantships for this experience).

Overall, faculty members seemed to have mixed opinions on the value of postprofessional education because many struggle to envision the future role of postprofessional education in athletic training.

### Administrators' Perceptions of How a DAT Degree Would Impact Their Institution

When asked to comment on the impact of delivering a DAT on the institution, administrators perceived that a residential program would be more effectively delivered (45.9% strongly agreed, agreed, or somewhat agreed) and would require more resources than an MAT or postprofessional master's degree in athletic training (67.0% and 73.1% strongly agreed, agreed, or somewhat agreed compared with MAT or postprofessional master's, respectively; Figure 4). Administrators did not perceive that the DAT was a viable alternative to offering a postprofessional master's degree (42.9%). In addition, many administrators did not feel that faculty with a DAT would be supported within their institution (50.5% strongly disagreed, disagreed, or somewhat disagreed). When asked about the implications of hiring a faculty member with DAT, 4 themes emerged as positive implications: (1) education, (2) clinical expertise, (3) increased productivity, and (4) alternative avenue for pursuing a doctoral degree. Six themes emerged as negative implications of hiring a faculty member with a DAT. These included (1) hiring concerns, (2) research productivity/tenure and promotion concerns, (3) friction between DAT and academic doctorates, (4) personnel shortage in the workplace, (5) expensive program to house, and (6) lack of understanding of the degree.

**Education.** Some administrators indicated the DAT would provide the proper education for non-tenure-track or clinical education coordinator positions with statements such as "could be credentialed for a NTT [non-tenure-track] clinical coordinator." Other administrators felt the DAT would create educators who were well qualified to teach in an athletic training program because of their ability to bridge between theory and application. This belief was supported by statements such as "Faculty with a DAT would be 'up to speed' on utilizing EBP [evidence-based practice] and how to encourage students to apply EBP during clinical practice" and

Figure 4. Administrator perceptions of the impact a postprofessional clinical doctor in athletic training degree on the institution. Abbreviations: AT, athletic training; DAT, doctorate in athletic training.



Strongly disagree Disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

"They would have a strong real-world experience to reflect on in the classroom." This perceived clinical expertise was well documented in administrators' comments.

**Clinical Expertise.** Responses referred to the perceived increase in clinical expertise of a faculty member with a DAT. Many administrators felt increased clinical expertise would lead to better student satisfaction, making statements such as "The faculty would have a wealth of clinical experience which would aid students' learning" and "Our students like learning from practitioners." Other administrators reported the expertise would help enhance faculty productivity, with statements such as "This person could support work in applied degrees without the burden of high research and publication production" and

They won't sit in a lab all day doing studies on college students with no ability to relate to patients or other clinicians who actually treat patients. They will bring real-world clinical experience with doctoral-level critical thinking to the higher education landscape.

**Increased Productivity.** In addition to perceptions that faculty with a DAT could enhance faculty research by relieving tenure-track faculty of a heavy teaching load, many administrators felt a faculty member with a DAT could contribute to research productivity by leading his or her own projects, as indicated with statements such as "The faculty member would be able to conduct translational and applied clinical research," or by his or her ability to collaborate with students and other faculty, as indicated with remarks such as "knowledge of what makes up a clinical transformative project at the level required for graduation and professional advancement" and "connections with experts that can serve as preceptors and on project committees."

Alternative Avenue. Although administrators expressed a preference for hiring a faculty member with a terminal academic degree, some felt hiring an applicant with a DAT could be a viable alternative. These beliefs were expressed through statements such as

*Fewer* +*s* [positives] than exist for PhD- or EdD-prepared faculty. I am not convinced that the postprofessional doctorate requires the level of research experience for DAT-prepared faculty to excel in independent scholarly endeavors at comprehensive doctoral granting universities.

and "Nothing if I can hire PhD in ATC [with an athletic training credential]. If I can't find those, that [the DAT] would be the next best option." Although many administrators believed hiring a faculty member with a DAT was an inferior option to hiring a candidate with an academic doctorate, some reported the perception that a clinically trained faculty member would be a less expensive option for institutions, with statements such as "less costly to hire as clinical faculty."

**Hiring Concerns.** Some administrators listed the DAT as a viable alternative to the PhD as a positive implication for the institution and others were not quite as sure. Many participants listed hiring concerns as a negative implication of the DAT for the institution. These trepidations centered on the preparation of DAT-trained faculty members and a concern with hiring the applicant for a clinical (nonteaching) position. One administrator voiced this apprehension with, "We believe that the roles would be quite limited. I am

concerned that programs would hire DAT-prepared faculty instead of PhD-prepared faculty, to the detriment of the institution and students." Another administrator stated, "Not a 'true' PhD level (research-based doctorate)—that may be difficult to sell to upper administration when hiring." Some administrators believed hiring a clinical faculty member might be worth the additional effort: "The need for resources to support additional salary (as opposed to hiring adjuncts). However, the investment would be worth it to enhance the quality and consistency of the education delivered." Some, however, explicitly stated their current hiring practices would not support a candidate with a DAT.

Many of the concerns related to hiring an applicant for a clinical (nonteaching) position focused on the available salary structure. This concern was supported with statements such as "They would be underpaid" or "They will ask for more money but really can't deliver more services—creates an over-credentialed practitioner." Although initial salary was a common concern among administrators, the potential for growth was also a concern.

Research Productivity/Tenure and Promotion Concerns. Administrators expressed concerns related to the clinically trained faculty member being able to produce research or qualify for tenure and promotion. Although the ability to produce research is separate from terms of employment, often one's level of scholarship is closely tied to eligibility for tenure and promotion. Therefore, the 2 separate themes were collapsed into 1. An example of statements related to these concerns was, "[There] are line contract expectations for all faculty in teaching/research/ service [with] no room for negotiations. These folks would be set up for failure at our place." Other administrators recognized that tenure and promotion guidelines may need to evolve to include faculty with the DAT, as indicated by statements such as "Tenure and promotion guidelines will need to find a balance between clinical duties and research expectations" and "Achieving tenure under the current T&P [tenure and promotion] guidelines of my university with a clinical doctorate and clinical duties may be tough." Finally, some administrators recognized the challenges faculty with a DAT may face. One administrator stated, "While I think faculty with a postprofessional doctorate will be qualified for a tenure-track faculty position, I'm not sure that other faculty and administrators feel the same way." Another administrator stated, "I question whether or not said individual would acquire the skills needed to develop a successful research agenda." Comments regarding research productivity and tenure and promotion concerns foreshadow the friction many administrators fear may occur among faculty members with varied degrees within the same profession.

Friction Between Faculty with Clinical Doctoral and Academic Doctoral Degrees. Administrators' responses alluded to friction between faculty members with clinical versus academic doctorates. One administrator spoke openly about this friction with the statement, "Postprofessional doctorates are not considered equivalent to PhDs in other fields. There are some negative feelings from PhD faculty about postprofessional faculty holding full professor rank." Other administrators skirted the issue with remarks such as "the potential to confuse applicants and dilute the strength of our PhD program," "With the hire of clinical faculty in a small department there is a risk of tipping the balance away

Table 4. Clinician and Employer Reporting of theNumber of Athletic Trainers Employed in Current WorkSetting

	No.	(%)
No. of Trainers	Clinicians	Employers
0–1	71 (21.3)	17 (13.1)
2–5	129 (38.7)́	42 (32.3)
6–10	55 (16.5)	45 (34.6)
11–15	33 (10.0)	12 (9.2)
16–20	14 (4.2)	4 (3.1)
>20	27 (8.1)́	10 (8.7)
Unknown	4 (1.2)	0 (0.0)
Total	333 (10Ó.0)	130 (10Ó.0)

from a professorial focus," and "You marginalize your own profession by thinking DATs will compete with academic doctorates."

**Personnel Shortage.** Although most administrators' responses focused on implications of hiring a faculty member with a DAT, some also commented on potential negative implications within the profession. One administrator compared these changes with those witnessed with the evolution of the audiology degree:

The negatives are resource allocations unless the clinical doctorate replaced the clinical masters...The downside of that would be certain work settings. For example: when audiology went to the AuD [doctor of audiology], there became a shortage of personnel to serve hearing-impaired students in the schools. I am not sure educational settings, K-12, would have the resources to hire a clinical doctorate person in [athletic training].

**Expensive Program.** Finally, some administrators responded there were challenges related to the costs with delivering a DAT at their institution. Concerns about cost ranged from the overall cost of the program to "the enhanced number of faculty required" for a doctorate degree to "finding enough faculty with a DAT to provide the training" needed.

Lack of Understanding of the Degree. One theme throughout the responses from the administrator stakeholder group was the general lack of understanding of the DAT. These comments ranged from "Implications would all depend on the skills and knowledge developed in the clinical doctorate degree" to the remark that there is a "high variability in training, not sure what to expect" and "unsure of readiness to teach." One administrator asked about the focus of the DAT with the statement, "Would their focus be entirely on practice and clinical issues or research?"

### **Clinical Setting Characteristics**

Clinicians were most commonly employed in the college/ university (n = 105, 31.6%), secondary school (n = 99, 29.8%), or clinic/office-based setting (n = 53, 16.0%). The largest number of clinicians reported working with 2 to 5 athletic trainers in their current setting (n = 129, 38.7%; Table 4). Employers most commonly described their work setting as clinical practice in a college/university (n = 54, 42.2%), nonclinical in a college/university (n = 29, 22.7%), or clinical practice, clinic/office based (n = 20, 15.6%). When asked about their primary work responsibilities, employers indicated clinical practice (n = 61, 46.6%) and administration (n = 45, 34.4%) most often. Employers hired a range of athletic trainers in their current work setting, with 2 to 5 and 6 to 10 being most common (n = 42, 32.3%, and n = 45, 34.6%, respectively; Table 4).

# Clinicians' Interest in Postprofessional Clinical DAT Degree

Of the clinicians responding to the survey, 47.5% (n = 151) indicated an interest in pursuing a DAT, and 52.5% (n = 167) indicated no interest. Three themes emerged to explain why individuals were interested in the DAT: (1) enhanced ability as a practitioner, (2) positioning oneself for a faculty role, and (3) advancement. Each of these higher-order themes and, if any, nested (lower-order) themes are presented below.

**Enhanced Ability as Practitioner.** This theme is constructed from 3 lower-order themes: (1) advanced clinical skills, (2) advanced knowledge, and (3) improved administration skills. The theme of enhanced ability as a practitioner, whether by increased clinical skill, knowledge, or administrative skill, was underscored by qualitative comments suggesting that the degree would allow athletic trainers to provide highquality patient care. Below, we present each of these themes with supporting quotes from participants.

**Advanced Clinical Skills.** Many clinicians who cited interest in the DAT believed it would lead to enhanced clinical skills. For example, one participant commented:

I would like to further my education by gaining additional skills and training. A postprofessional clinical doctorate would allow me to learn and develop skills that are directly related to athletic training. Other areas in which I could pursue a degree (ie, business, academic research, etc) could be valuable but are not directly related to my chosen career field.

**Advanced Knowledge.** Advancing one's knowledge was another component driving interest in the DAT. For example, participants commented the degree would "further my knowledge in athletic training as a whole" and result in "advanced knowledge in the field of athletic training to make me a better clinician."

*Improved Administration Skills.* Fewer individuals commented on the potential improvement of skills related to the domain of health care administration. One individual stated:

I feel the opportunity to learn more regarding business and administration would be a great way to better prepare head athletic trainers for the respective position. With the NCAA [National Collegiate Athletic Association] being a business and having specific rules and regulations in place, it's imperative that athletic trainers be educated in common business practices. Also, earning a doctorate degree will give athletic trainers leverage for pay raises, comparable to other professions.

This type of degree and the potential to gain administrative expertise was also cited as a way to move into a management position:

At some point during my career, I would like to move out of the "field" and into a position on management, whether it be at a university or a hospital. I feel like this degree would be a requirement for these positions.

**Positioning Oneself for a Faculty Role.** Participants indicated that the DAT would help them prepare for a faculty role. For example, one participant stated, "I [have] never been able to fully envelop my studies in the research aspect of athletic training, and I would truly enjoy immersing myself in that area." Also, participants commented on how the degree would allow them to teach in an athletic training program. As one participant stated, the "ability to teach in a professional or postprofessional athletic training program" created an interest in the DAT.

The interest in positioning oneself in a faculty role was corroborated by another individual, who stated,

I think the degree would give me the opportunity to become a professor. With the profession moving toward the entry-level master's degree, I would need a degree higher than my master's degree to teach. I think that is the direction I would like to go.

**Advancement.** This theme was related to the DAT's resulting in increased respect as a practitioner and, subsequently, a higher salary and advancement in the profession. In regard to salary issues and respect, one participant commented that a DAT would make it "easier to get a pay raise and be taken more seriously as a professional in some avenues." Another individual commented that earning the DAT degree may result in more autonomy and respect:

Undergraduate and graduate-level courses don't provide enough autonomy in a clinical setting. Now I am stuck in a setting that garners no ability to impress. Further education may be the only way to gain more respect outside and inside [the] profession.

Another individual commented on how the DAT would position her for a higher salary and provide advancement opportunities in the organization: "[The degree would] help me negotiate a higher salary in my current position and encourage administrators to place me in a leadership and/or supervisory role." This participant added:

Since I work in a clinic setting I think this would be a great alternative. I also feel it would help me gain more respect in my current work setting, which includes a variety of health care providers, many of whom do not know who or what athletic trainers are capable of!

For others, the advancement theme captured the ability to enter new job settings and meant not having to settle for limited job settings:

I would want to have the ability to change job settings later in life if I so desired. I don't like having to settle for only a few specific job settings. I think that is one reason we are losing so many ATs to PT [physical therapy]. The flexibility within [the] schedule and in choosing where to work is very limiting to ATs. Then you add the factor of salary. PTs versus ATs in the clinical setting make a considerable difference in pay/ salary for the exact same job duties essentially. The only real differences are set by the government, which in turn reflects in insurance and that trickles down to our pay/salary and how the general public views our master's degree compared to what used to be a master's degree for PT and is now their new doctorate degree. We as ATs don't give ourselves much leg to stand on when we go to try to gain more respect, more money, or more public acceptance.

**Reasons Clinicians Lack Interest in Pursuing a DAT Degree.** Besides the typical lack of interest in a doctoral degree, 2 themes emerged to explain why participants were not interested in the DAT: (1) low return on investment and (2) concerns over the DAT itself.

Low Return on Investment. Participants perceived that the time, effort, and money associated with obtaining the DAT would not result in a return on investment, particularly if they were paying out of pocket instead of receiving tuition from their employer. One participant stated very succinctly that "the cost-benefit ratio is not worth it at current pay scales." Another participant took this a step further and listed the aspects associated with low return on investment:

It is not the path to gaining respect as a profession. Would offer little to no advancement in the workplace. Cost versus salary earned would not be worth it. Only see DAT working as instructors, not clinicians in athletics. Teams would rather hire DPT [doctor of physical therapy] and MD than DAT.

Additionally, the effort to obtain the DAT was thought to be not worth it by some because of a lack of career opportunities and compensation:

I do not believe it would open up any career opportunities not already available to me. A clinical doctorate in athletic training would not lead to greater compensation in the current health care system. A clinical doctorate in athletic training I believe would create barriers to interprofessional collaboration in clinical practice as there is a hierarchy to scope of practice and if every member of a health care team has a "doctorate" it leads to patient confusion as not every "doctorate" develops the same set of skills and level of knowledge.

The perceived low return on investment arose from the belief that experience and continuing education were adequate for advancement. For example, one participant stated, "At this point, ATs [athletic trainers] can gain similar experience/skill/ techniques from seminar/lecture/workshop if they desire." This notion was corroborated by another participant, who stated:

[1] work at the secondary school setting and see no need for it. I stay up to date by reading publications, attending symposiums, completing CEUs [continuing education units], and discussing cases with my athletic training peers as well as PTs, orthopaedic surgeons, and a neurologist.

For others, the lack of return on investment was related to the lack of opportunity for advancement and, potentially, being overqualified. For example, one participant stated:

Although I can see how it would benefit me professionally in several avenues, the current environment that I practice in would end up preventing the use of much of the educational and leadership benefits, thereby nullifying the intent of the program. Once ATs can gain a strong and respected foothold within the military setting, it may be something more pertinent to consider.

Similarly, another respondent stated,

At my current position, in the collegiate setting, there [are] no longer any upward mobility opportunities as the head athletic trainer, nor the opportunity to teach additional courses, since we do not have an athletic training education program.

**Concerns over the DAT Degree.** Several participants expressed concerns that there were many "unknowns" with the DAT. For example, one respondent stated,

The value of the degree is not established and is unlikely to be valued in the near future. The focus needs to be on increasing respect of all athletic training clinicians, not establishing another tier of clinician.

This notion was corroborated by another participant, who stated:

All the details would have to be hammered out as I am skeptical to be one of [the] early participants into a program like this and expect it to pay off later without seeing the actual utilization by the public and research backing it as an advantage.

## Employers' Perceptions of Hiring an Athletic Trainer with a DAT Degree

Of the employers responding to the survey, 42.4% (n = 56) were very likely, likely, or somewhat likely to hire an athletic trainer with a DAT, and 36.4% (n = 48) were very unlikely, unlikely, or somewhat unlikely to do so. Twenty-one percent (n = 28) were undecided whether they would hire an athletic trainer with a DAT.

Two themes emerged to explain why employers were not interested in hiring an athletic trainer with a DAT: (1) lack of adequate compensation and (2) lack of clinically significant difference in the degree itself. One theme explained why employers would hire an individual with the DAT degree: advanced patient care skills.

#### Reasons for Disinterest in Hiring an Athletic Trainer

with a DAT Degree. Primary and recurring reasons given by participants who employ athletic trainers are discussed below.

Lack of Adequate Compensation. Employers indicated they would not be able to provide an athletic trainer a salary expected for an individual holding a doctoral degree. One employer simply stated, "We don't have the funding to hire someone with an advanced degree." Supporting this, a different employer very concisely stated the "salary we provide our athletic trainer would likely not be what someone with a doctoral degree would want."

Lack of Clinically Significant Difference in the Degree. In addition to lack of adequate compensation, employers also thought the DAT would not adequately differentiate the employee from other credential holders. One employer shared,

Despite [the] possibility of what clinical doctorate can become, at the current moment the perception is it doesn't provide a clinically significant difference than other profession[al]s or ATCs [certified athletic trainers] within [the] company.

Another employer stated

A candidate would be qualified for the position from a degree standpoint and would be as qualified as any other applicant. Until DAT degrees become commonplace, it would not be a requirement for employment at my institution as it stands now due to a limited applicant pool.

To that point, another employer added "a candidate with a MS versus DAT is going to look the same without other criteria in place to assure that one is more superior than the other."

**Reasons for Interest in Hiring an Athletic Trainer with a DAT.** For those employers interested in hiring an athletic trainer with a DAT, the reason was related to such a person's ability to provide advanced patient care skills. One employer stated:

I think that as a whole the profession of athletic training needs more clinical scholarship as well as athletic trainers who have clinical scholarship as a primary goal. Patients can benefit from those with a DAT because they are able to articulate the principles of evidence-based practice and patient-centered care in a way that is meaningful to patients. This helps in advancing patient care, and this will be attractive to employers looking to improve patient-centered care.

Supporting this, another employer stated, "Having good clinical applied skills would help patient care and help students in an academic program as a preceptor prepare entry-level students [to] be more prepared going out." This notion was corroborated by another employer who hired an AT with a DAT degree:

I have hired a faculty member who is completing her DAT and I have seen great value in what she brings to the clinic and classroom. She has over 20 years of experience and is "all in" when it comes to advancing her own clinical practice. Her skills are advanced/advancing, her understanding of how to actually implement patient-rated outcomes and informatics into live patient care is invaluable and something that our "academic" faculty have no training in. My limited observation is that DATs have a different level of professional commitment and clinical sophistication. They are much less likely to accept the status quo.

### DISCUSSION

The current study examined stakeholders' perceptions of the DAT. We received acceptable response rates from faculty, administrators, clinicians, and employer groups, which represented a variety of academic institutions and clinical settings across the United States. The majority of faculty and administrators reported having earned an academic doctoral degree (eg, PhD, EdD), and many held a clinical credential. Most clinicians had 9 or fewer years of clinical experience and had obtained a non–athletic training–specific master's degree; almost half held an additional credential, which may suggest a desire for advanced clinical practice training and education, particularly early in the career. Interestingly, the majority of employers were athletic trainers, which may not represent all clinical practice settings.

### Familiarity with Degree Programs

When asked about familiarity with degree programs, all stakeholders were more familiar with master's degrees, professional and postprofessional, than doctoral degrees. Furthermore, clinicians and employers were less familiar with doctoral degrees compared with faculty and administrators. Although faculty and administrators work in academic settings where degree programs are delivered, it is important for end users-clinicians and employers-to understand and differentiate among various doctoral degrees. Given the current climate of degree ataxia in health care and the novelty of the DAT,<sup>9</sup> the reported lack of familiarity and confusion surrounding the DAT is not surprising. Over the last 10 to 15 years, other professions (eg, nursing) have established position statements on advanced-practice clinical doctoral degrees to provide resources for stakeholders, including professional recommendations and educational guidelines for the degree title, degree design, and content foci.<sup>7,8</sup> Thus, the need to identify and define athletic training-specific degree programs at the doctoral level is apparent, and the profession should consider its role in making similar recommendations.

### **Faculty Perceptions**

Sixty percent of faculty surveyed believed the DAT was a worthwhile alternative to the postprofessional master's degree for individuals seeking to advance their knowledge in athletic training. This belief of faculty is important because faculty are charged with the creation and delivery of the curricular content of the DAT. Faculty members also believed the DAT would prepare students to be better consumers of current and quality evidence and would help produce more knowledge relevant to clinical practice. The DAT is a recent innovation and has yet to produce alumni in sufficient numbers to either support or refute this assertion. However, nursing, which has different education and practice from athletic training, reports nursing students enrolled in clinical doctorate programs are more likely to focus on studies related to improvements of clinical practice.<sup>18</sup>

Faculty were varied in their opinion of whether the DAT was more sustainable for the profession, with the majority of the responses being neutral. This opinion is also consistent with the nursing literature, which reports faculty responses to the clinical doctorate as falling into 1 of 3 broad categories: (1) enthusiastic, (2) ambivalent, or (3) skeptical.<sup>18</sup> This skepticism is thought to stem from "a degree of suspicion that it's an easier route to a doctoral outcome."  $^{18(p2276)}$  In academia, the PhD remains a benchmark and gold standard against which all other forms of doctoral education are judged. The PhD offers a grounding in research and is a professional academic qualification that places professional programs on par with more established members of higher education.<sup>7,18</sup> Despite this fact, the number of professional doctorates is growing across the health care disciplines.<sup>8,9,18</sup> Richter et al<sup>28</sup> suggest it may not be the credential but the number of peer-reviewed publications that is the primary unit by which academic faculty, educational programs, and academic fields are judged. This notion is supported by Metcalf et al.<sup>24</sup> who suggest that the lack of research and publishing among doctorally prepared individuals may fuel the perception that a discipline is "unprofessional, lacks academic rigor, and/or lacks respect from the greater health care or academic communities."24(p417)

### Administrator Perceptions

In contrast to faculty members, administrators did not perceive the DAT as a viable alternative to offering a postprofessional master's degree. This belief contrasts with studies<sup>18,29</sup> of other professions, mainly nursing and physician assistantship, that have established advanced-practice postprofessional clinical doctoral degree programs. One main reason provided by administrators in the current study was that faculty with a clinical doctorate would not be supported within their institution, which is interesting because most of the participants were from institutions that offered clinical doctoral degrees in other disciplines. The Higher Learning Commission guidelines<sup>30</sup> state that faculty members in graduate programs should hold the terminal degree determined by the discipline and have a record of research, scholarship, or achievement appropriate for the graduation program. The Higher Learning Commission<sup>30</sup> further states that, when faculty members are employed based on equivalent experience rather than credentials, the institution must define a minimum threshold of experience and an evaluation process should be used in the appointment process. This language suggests credentials are the primary mechanisms used by institutions to ascertain minimal faculty qualifications. Therefore, if the product of the DAT were better understood, academic administrators might be more open to hiring faculty who are clinically trained.

### **Clinicians' Perceptions**

Although the majority of athletic trainers do not currently complete doctoral education, clinician participants indicated a potential strong interest (47.5%) in completing the DAT. The primary perceived benefits for pursing a DAT included improving patient care by gaining advanced clinical skills and being able to provide more effective patient-centered care. These findings are similar to findings from the physical therapy profession, where postprofessional practice doctorates were thought to increase knowledge and clinical ability.<sup>23</sup> Clinicians in the current study also reported that earning a DAT could improve employment opportunities (eg, faculty roles, administrative opportunities, improved salary). The majority of clinicians (more than 80% of participants) reported a DAT graduate would be well suited to teach professional students, serve in faculty positions, and be a valuable member of a research team. The belief that earning a DAT could increase opportunities for teaching in athletic training education programs is supported in other professions, such as nursing, physical therapy, occupational therapy, medicine, and law, where practice doctoral degrees are often recognized as qualifying individuals for clinical or tenuretrack positions, depending on the university.9,12,14,16,19,23 Participants in the current study also reported agreement that the DAT could improve public perception of the profession and increase the potential for third-party reimbursement. Although other health care professions report similar beliefs regarding public perception, increased reimbursement has not been cited as a potential benefit for earning a doctoral degree.<sup>23</sup> However, these professions also practice under a different health care model with a different method of reimbursement than that traditionally used within the profession of athletic training.

Although clinicians noted benefits and supported the concept of the DAT, barriers to pursing a practice doctorate were also identified in the current study. The most common reason for not pursuing the DAT was the belief of a low return on investment as the value of the degree was established. Some participants were worried the degree would not increase employment opportunities or compensation in the near future, and others reported concerns over the cost of tuition unless an employer provided support for the costs of pursuing postprofessional education. Despite these concerns, practitioners in other health care professions, such as audiology, pharmacy, the nurse practitioner profession, and occupational therapy, have experienced increases in salaries after the transition to an entry-level doctoral degree or the earning of postprofessional doctoral degrees.<sup>9</sup> Another barrier for participants was concern about the "unknowns" of doctoral education and the degree itself (eg, not understanding the benefit to clinical practice, program design, or financial commitment). Other health care professions have dealt with similar perceptions and reported concerns about the length of a program or how an individual's perceived finite resources may impact the desire to pursue doctoral education.<sup>18</sup> Furthermore, other professions have reported perceptions that professional education was too long and there was a decreased motivation to pursue additional training at the graduate level.<sup>9,31</sup> In our study, financial and employment resource constraints were mentioned by many clinicians, but concerns about degree length or graduate education were less commonly identified. This response may be the result of the majority of our clinician participants having completed their professional education at the bachelor's level as opposed to the graduate level.

### **Employers' Perceptions**

Employers expressed the desire to hire an individual possessing a DAT because of the perceived ability to provide enhanced patient care, which is often the key objective of advanced-practice clinical doctorate degrees.<sup>7</sup> However, for some employers the degree is not commonplace, and thus may not significantly differentiate those who hold a DAT from those who possess a great deal of clinical experience.

Employers also raised a concern regarding their inability to adequately compensate those with a clinical doctorate. This concern runs counter to the views of clinicians who believed the advanced clinical doctorate would result in a higher salary. This incongruity of viewpoints about salary raises more questions than it answers: however, in other professions, such as nursing and occupational therapy, clinicians' salaries have increased as education and training increased.<sup>32</sup> Seegmiller et al<sup>9</sup> found that most health professions that moved to a clinical doctoral degree had a salary increase ranging from 29% to 65%. Given the current perspectives of employers, athletic trainers will likely need patient outcomes data and evidence of successful scholarship to display the value added to clinical practice to justify higher salaries for those possessing a clinical doctoral degree. These data will be necessary to offset the perception of some employers that there is a lack of difference between athletic trainers with and without a DAT degree.

### **Limitations and Future Directions**

The following limitations may have affected the results of the current study. The response rate in each stakeholder group was acceptable; however, participants were not required to complete each survey item. Therefore, response rates for individual items varied throughout the survey. Because the current study examined perceptions, all data, regardless of survey completion, were reported. The majority of clinicians represented a group of athletic training professionals with less than 10 years of clinical experience, and results may not be representative of the larger clinician stakeholder audience with more clinical experience. Finally, most of the employers possessed an athletic training credential. It is unknown how well these employers represent the larger employer group, even though all of them had previously advertised jobs on the NATA Career Center, which is the primary job posting site for athletic trainers.

Future research should examine curricular considerations and characteristics of graduates of an advanced-practice, postprofessional DAT to make it distinctive from the postprofessional master's and academic doctoral degrees and to guide education programs and the profession. Moreover, future research should examine the experiences and perceptions of recent DAT program graduates to explore the influences the degree has had on patient care delivery, professional respect, and salary. Finally, longitudinal studies are needed to assess the effect the DAT has on professional training (eg, clinical practice improvement, research productivity) and how stakeholder perceptions evolve as the profession works to address the issues related to degree ataxia.

### CONCLUSIONS

The current study examined perceptions of faculty members, administrators, clinicians, and employers about the DAT. Participants were generally supportive of the DAT and thought it would provide advanced patient care skill and professional knowledge. Given the lack of degree clarity and issues related to degree ataxia, many questions and concerns surfaced, such as institutional resources and support and salary compensation. The differences in responses within and across stakeholder groups illustrates the general lack of understanding of the DAT degree. To our knowledge, the current study is the first to provide insight about perceptions of the DAT from various stakeholders, and these results can be used as a foundation for the profession to engage in discussions and decisions about this degree.

#### Acknowledgments

This study represents work completed by the National Athletic Trainers' Association, Post-Professional Education Committee's Work Group on Doctoral Education. Co-Chairs of the Work Group were David Perrin, PhD, ATC, and Jeffrey Seegmiller, EdD, ATC.

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