

Legislators' Perceptions and Knowledge of the Athletic Training Profession: Specific Considerations for Secondary Schools

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Context: Legislation has played a role in advancing the athletic training profession and improving the health and safety of student-athletes. However, few researchers have examined state legislators' perceptions and awareness of the skills and qualifications accompanying the athletic trainer (AT) role.

Objective: To explore state legislators' perceptions of the athletic training profession and knowledge related to qualifications and responsibilities of ATs.

Design: Cross-sectional study.

Setting: Web-based questionnaire.

Patients or Other Participants: State legislators representing 34 states (N = 143; 67.13% male, 32.87% female). Their average age was 58.7 ± 11.7 years, and they had served 7.4 ± 6.9 years in their current role. A majority served as members of the state house or assembly (n = 98, 68.5%), and 31.5% served in the state senate.

Main Outcome Measure(s): Quantitative data were analyzed using descriptive statistics. Spearman ρ correlations assessed relationships between perceptions and knowledge of the profession. Stepwise regression analysis determined pre-

dictors of knowledge and perceived value of athletic training. Qualitative data were analyzed inductively.

Results: Approximately 69% of respondents considered an AT to be a trusted source of medical information, and 16% considered an AT as the most appropriate individual to provide medical care to an injured athlete on a daily basis. Thirty percent of state legislators selected *AT employed at the school* as a top sports safety measure. Three themes emerged from the inductive analysis: (1) recognition of the prevention domain, (2) misconception of ATs as personal trainers or strength and conditioning coaches, and (3) lack of knowledge regarding ATs' educational requirements.

Conclusions: Legislators demonstrated limited knowledge of the AT profession. When legislator knowledge of AT qualifications and responsibilities was high, value of the AT profession also significantly improved. Future efforts should focus on enhancing legislators' knowledge to increase the value placed on the athletic training profession and improve health and safety for secondary school athletes.

Key Words: legislature, advocacy, survey research, high school

Key Points

- Approximately 69% of responding state legislators considered an athletic trainer (AT) to be a trusted source of medical information.
- A moderately positive relationship was present between state legislators' knowledge of the qualifications and responsibilities of ATs and the value placed on the role of the AT.
- State legislators recognized the role ATs have in injury prevention but lacked knowledge regarding the educational requirements to become an AT.

The athletic training profession has grown and advanced over the years and gained recognition by other medical professionals and the general public. As a result, the prevalence of athletic trainers (ATs) in the secondary school setting is on the rise. In 1994, only 35% of secondary schools employed an AT.¹ More recently, approximately 70% of public² and 58% of private³ secondary schools had access to an AT. Despite increased knowledge and awareness of the importance of providing appropriate medical care for student-athletes, some schools still do not employ or provide student-athletes access to a

health care professional such as an AT, and legislation in many states fails to meet best-practice standards regarding the employment of ATs. Noted challenges such as cost, school size, and lack of knowledge have been barriers to hiring ATs for school administrators in both the public and private sectors.⁴ Although these administrators, including superintendents, principals, and athletic directors, are in positions to hire ATs, other stakeholder groups on a more global level have the power to influence the employment of ATs in the secondary school setting.

Legislation has played a large role in raising awareness of the athletic training profession and improving safety for student-athletes across the country. In May 2009, Washington became the first state to enact a youth sport concussion safety law.⁵ Through legislative efforts, all 50 states and the District of Columbia have now implemented laws to protect student-athletes from concussions.⁶ This is just one example of how legislation has enhanced the overall welfare of student-athletes nationwide. Legislators have also assisted with the growth of and respect for the profession through regulation. Certification and licensure for ATs not only recognize the profession as esteemed and comparable with other health care–related fields but also ensure that student-athletes have access to well-educated, proficient medical professionals in the fields of injury prevention, recognition, treatment, rehabilitation, and emergency care. Currently, 49 states plus the District of Columbia regulate the practice of athletic training, which means individuals who wish to practice as ATs in those states must be recognized by the appropriate state governing agency before working clinically.⁷ Additionally, the athletic training scope of practice in individual states is based on local legislation. The perceptions and level of knowledge legislators have regarding ATs' value, roles, and responsibilities can directly promote or inhibit continued advancement of the profession.

Few investigators have looked at legislators' perceptions and knowledge of the athletic training profession. We are aware of no peer-reviewed published studies on this topic, but master's thesis work⁸ has addressed the perceptions of legislators and superintendents in West Virginia. Shepherd⁸ reported that West Virginia legislators were knowledgeable regarding the qualifications and abilities of ATs. However, this was not indicative of legislators' knowledge and perceptions nationwide. Furthermore, members of the West Virginia Athletic Trainers' Association educated their legislators on athletic training to promote passage of House Bill 3152, the Athletic Training Registration Act.^{8,9} These educational efforts might have produced more favorable survey results than if the study had been conducted earlier. Also, recent attempts to roll back practice acts and limit the scope of athletic training practice have occurred in certain states. This highlights the continuing need for legislators to be fully aware of the training required to become an AT as well as the roles ATs are qualified to perform. Research regarding legislators' perceptions and knowledge of athletic training is warranted to tailor educational efforts that further raise awareness of the value of the profession.

Therefore, the purpose of our study was to explore state legislators' perceived value of the athletic training profession and their level of knowledge regarding ATs' qualifications and responsibilities. The following questions guided our investigation: (1) What were legislators' perceptions of the value and influence of an AT on physical activity and sports safety? (2) What did legislators perceive to be the qualifications and responsibilities of the AT?

METHODS

We used a concurrent mixed-methods cross-sectional design¹⁰ to gain a better understanding of legislators' perceptions and knowledge of the athletic training profession. A survey instrument composed of quantitative and

qualitative questions was developed to assess the perspectives and knowledge of the state legislators. The University of Connecticut's Institutional Review Board approved this study.

Our participants served as state legislators across the United States and the District of Columbia. Contact information for 7016 state legislators was provided by the National Athletic Trainers' Association. We administered the survey through an online survey platform (Qualtrics Inc, Provo, UT) to all state legislators in May 2017. To encourage participation and increase the response rate, reminder e-mails were sent at 1 week and 3 weeks after the initial survey distribution. As another means of increasing the response rate, we used a random number generator to select 4 state legislators who completed the questionnaire as recipients of \$50 Amazon gift cards.

Survey Instrument

Two researchers developed the survey instrument, which contained 3 sections: (1) demographic information; (2) various quantitative measures regarding legislators' knowledge of the qualifications and responsibilities of ATs, as well as the perceived value of the profession; and (3) open-ended questions for respondents to expand on their thoughts, perspectives, and knowledge regarding this topic. Specific quantitative measures related to legislators' understanding of ATs addressed previous interactions they had had with ATs, which may have influenced their knowledge and perceived value, as well as their level of involvement in voting on bills that pertain to the athletic training profession. Open-ended questions consisted of the following: (1) How do you feel having an athletic trainer at the school could/does impact student-athletes' health and safety? (2) In your opinion, what is an athletic trainer? (3) What are the outlined job responsibilities of an athletic trainer? (4) What do you believe are the minimum requirements (educational and certifications) to become an athletic trainer?

Before administering the survey to the legislator population, we conducted 2 validation procedures.¹¹ The first was content validity,¹¹ whereby 2 state legislators reviewed each individual question on the survey for clarity, importance, and relevance to the study's purpose. We made changes to the survey based on the legislators' feedback. The second step was face validity¹¹: a member of the research team reviewed the instrument on the survey platform to ensure accurate presentation and flow and correct errors that might compromise the validity of the results.

Data Analysis

Quantitative Data Analysis. We used SPSS (version 25; IBM Corp, Armonk, NY) to analyze the survey data. Quantitative data were analyzed using descriptive statistics, and the results are presented as means \pm standard deviations and overall percentages. Spearman ρ correlations were calculated to explore relationships between legislators' overall perceptions and knowledge of the athletic training profession. This correlation was selected purposefully, as it is used to analyze nonparametric data. We ran separate stepwise regressions to determine variables predicting (1) legislators' knowledge of athletic training

Table 1. Legislative Respondents by State

State	No. of Respondents
Alabama	4
Alaska	3
Arizona	1
Arkansas	5
Connecticut	2
Delaware	1
Georgia	5
Hawaii	4
Indiana	1
Iowa	6
Kansas	5
Kentucky	3
Maine	5
Maryland	3
Massachusetts	2
Minnesota	4
Mississippi	2
Missouri	5
Montana	12
Nebraska	1
New Hampshire	10
New Mexico	3
North Dakota	3
Oklahoma	4
Pennsylvania	7
Rhode Island	4
South Carolina	2
South Dakota	6
Tennessee	3
Utah	7
Vermont	13
West Virginia	3
Wisconsin	1
Wyoming	3

roles and responsibilities and (2) legislators' perceived value of ATs to the health and safety of student-athletes. The *knowledge* variable was quantified using the Board of Certification *Practice Analysis*, seventh edition.¹² Respondents were presented with a list of domains and asked to select those in which they believed ATs were qualified to perform. The knowledge variable was determined by the number of correct domains identified. For example, if a legislator selected *injury prevention* and *therapeutic intervention* but did not select the other 4 correct responses, he or she received a score of 2 for the knowledge variable. This value was then used in the correlation calculations and regression analyses.

Qualitative Data Analysis. Open-ended survey responses were analyzed qualitatively using the general inductive approach.¹³ To help establish trustworthiness, 2 researchers independently read the raw data multiple times to gain insight into the respondents' perceptions and knowledge, a credibility strategy known as *multiple-analyst triangulation*.¹⁴ Codes were assigned to chunks of data that related to our purpose statement and research questions. Similar codes were then combined to form overarching themes. The inductive approach to data analysis provided us with a rich understanding of legislators' perceptions of the athletic training profession and knowledge related to the roles, education, and responsibilities of an AT. After completing their individual processes, the analysts met to discuss the emergent themes, which included naming the themes and

Table 2. Respondents' Demographic Information (N = 143)

Demographic	Response, No. (%)
Sex	
Male	96 (67.1)
Female	47 (32.9)
Membership	
State house or assembly	98 (68.5)
State senate	45 (31.5)
Education	
High school diploma	5 (3.5)
Associate's degree	5 (3.5)
Bachelor's degree	52 (36.4)
Master's degree	48 (33.6)
Doctorate	25 (17.5)
Other	8 (5.6)
Medical certification(s)?	
Yes	8 (5.6)
No	135 (94.4)
Personally know an athletic trainer?	
Yes	82 (57.3)
No	61 (42.7)

the data supporting each theme. Once the authors agreed regarding the emergent themes, the peer-review process began. Our peer has extensive research experience and a strong background in athletic training policies and procedures and professional advocacy. The peer review was used to confirm the findings of the multiple-analyst triangulation.

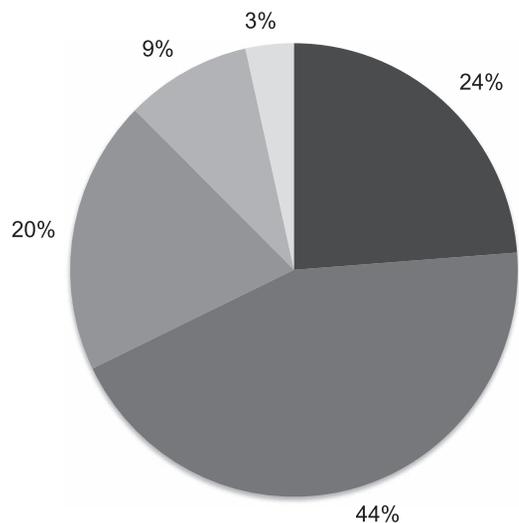
RESULTS

The overall purposes of our study were to (1) explore state legislators' perceived value of the athletic training profession and (2) better understand their level of knowledge regarding ATs' qualifications and responsibilities.

Quantitative Results

The survey was administered to every state legislator in the United States (including the District of Columbia, n = 7016); however, as a result of turnover, 175 e-mails were undeliverable. A total of 143 of 6841 legislators responded to the survey, yielding a 2% response rate. Our findings reflect state legislators in 34 different states (Table 1), and although not all states were accounted for, we consider this to be a representative sample of the population based on the diversity of the geographic regions. Legislator respondents represented all 10 districts of the National Athletic Trainers' Association. The average age of our respondents was 58.7 ± 11.7 years, and they had served an average of 7.4 ± 6.9 years in their current role (Table 2).

As a broad question to determine if legislators viewed athletic trainers as medical professionals, they were asked whom they considered to be a trusted source of medical information. They were allowed unlimited selections from a list of medical and nonmedical professionals. *Physician* was chosen by 98% (n = 140) of state legislators, and a lower percentage (69%, n = 99) considered an *AT* as a trusted source (Table 3). Respondents were also asked to rank individuals based on their level of appropriateness to



■ Strongly agree (n = 34) ■ Somewhat agree (n = 63)
 ■ Neither agree nor disagree (n = 28) ■ Somewhat disagree (n = 13)
 ■ Strongly disagree (n = 5)

Figure 1. Level of agreement that athletic trainers are health care professionals.

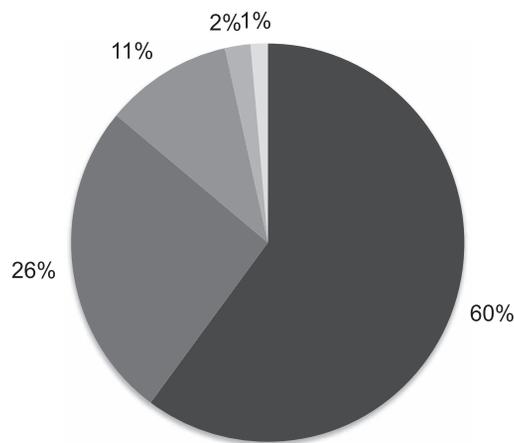
provide daily medical care to an injured athlete. In a similar trend, a majority of the respondents (76%, n = 108) considered a physician to be the most appropriate, whereas 16% (n = 23) ranked AT as the most appropriate to fulfill that role. Lastly, the level to which the respondents agreed or disagreed with the statement *ATs are health care professionals* is presented in Figure 1. Legislators also indicated the level to which they agreed or disagreed that health care professionals should be licensed at the state level (Figure 2).

To understand legislators' perceptions of the responsibilities of an athletic trainer, respondents were asked, "In your opinion, what are athletic trainers qualified to do? Select all that apply." Responses to this question are outlined in Figure 3. Regarding the perceived value of an AT, we asked legislators what they considered to be the top 3 sport safety measures in secondary school athletic programs (Table 4). We asked state legislators to indicate how valuable they believed an AT was to the health and safety of student-athletes using a Likert scale ranging from (1) *not at all valuable* to (5) *extremely valuable* (Table 5).

Table 3. Trusted Sources of Medical Information (N = 143)^a

Source	No. (%)
Physician	140 (97.9)
Nurse	130 (90.9)
Physician assistant	127 (88.8)
Emergency medical technician	99 (69.2)
Athletic trainer	99 (69.2)
Chiropractor	73 (51.0)
Strength and conditioning coach	42 (29.4)
Coach	16 (11.2)
Athletic director	12 (8.4)
Parent	11 (7.7)
Principal	3 (2.1)

^a Responses to the questionnaire item, "Who do you consider to be a trusted source of medical information? Check all that apply."



■ Strongly agree (n = 86) ■ Somewhat agree (n = 37)
 ■ Neither agree nor disagree (n = 15) ■ Somewhat disagree (n = 3)
 ■ Strongly disagree (n = 2)

Figure 2. Level of agreement with state licensure for health care professionals.

The extent to which our respondents had been involved in legislative efforts related to the athletic training profession was an important construct to capture the sample's familiarity with ATs based on their own legislative experiences (Table 6). We found a weak positive relationship between state legislators' having voted on a bill related to the athletic training profession and the value placed on ATs in their role of optimizing student-athlete health and safety ($r = 0.189, P = .024$). Additionally, a moderate positive relationship was observed between state legislators' knowledge of the various qualifications and responsibilities of an AT and the value placed on the AT to enhance the health and safety of student-athletes ($r = 0.417, P < .001$). The more knowledgeable a state legislator was on the different roles of an AT, the more likely he or she was to place a higher value on the profession.

A summary of the stepwise regression analysis for variables predicting legislators' knowledge of ATs' qual-

Table 4. Sport Safety Measures in Secondary School Athletics Programs (N = 143)

Sport Safety Measure	No. (%)
Injury-prevention programs	107 (74.8)
Protective equipment (eg, helmet, shoulder pads)	75 (52.4)
Preparticipation physical examinations	68 (47.6)
Medical professional present at practices/competitions	62 (43.4)
Athletic trainer employed at the school	43 (30.1)
Practice/game modifications based on environmental conditions	22 (15.4)
Emergency action plans	21 (14.7)
Medical professional available for students during school hours	13 (9.1)
Athletic director present at sport events	4 (2.8)
Identification of physical hazards on sport fields	4 (2.8)
Referee for competitions	4 (2.8)
Individual designated to provide water to athletes	3 (2.1)
Weather monitoring	2 (1.4)
Supplements to enhance performance	1 (0.7)
Game/competition security	0 (0.0)

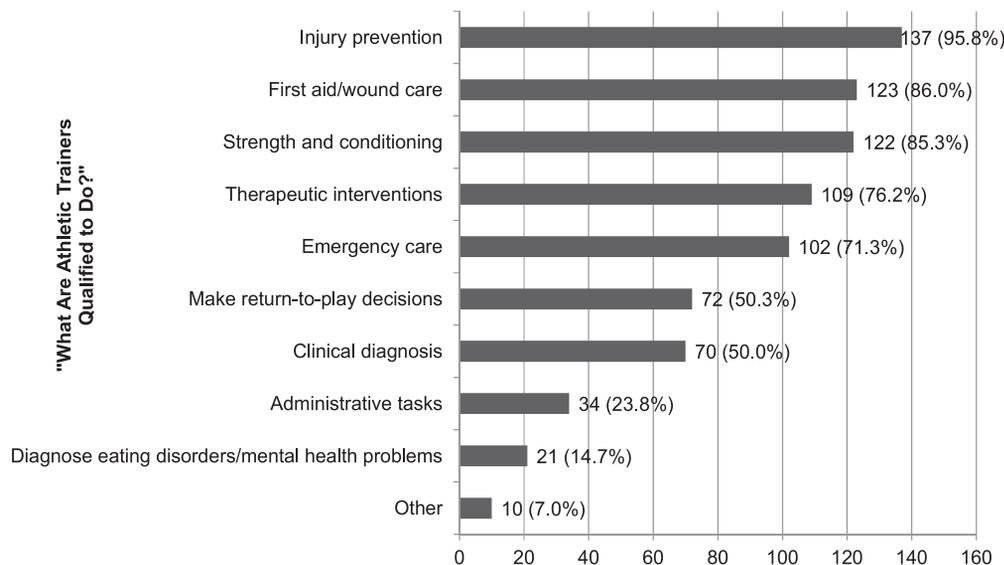


Figure 3. Legislators' perceptions of athletic trainers' qualifications and responsibilities.

ifications and responsibilities is provided in Table 7, and variables predicting the perceived value of ATs are listed in Table 8. These regression analyses provided insight into relationships between variables of interest that ultimately influenced knowledge and perceived value of the profession.

Qualitative Results

After completing the general inductive data-analysis process, we identified 3 emergent themes to supplement our quantitative data and to help us better understand legislators' perceptions of the value and influence of an AT on physical activity and sport safety and their perceptions of the role, education, and responsibilities of the AT. These themes were (1) recognition of the prevention domain, (2) misconception of ATs as personal trainers or strength and conditioning coaches, and (3) lack of knowledge regarding ATs' educational requirements.

Recognition of the Prevention Domain. The participants in our study appeared to recognize the role ATs have in injury and illness prevention and wellness. One legislator stated, "I think ATs with proper certifications could help reduce the number of injuries through prevention..." An additional respondent answered, "The [athletic] trainer provides prevention for repeat injuries due to being able to work with the students and provide a plan to combat repeat injuries." Other answers included "help injured athletes and try to prevent injuries," "prevention—equipment, stretching, diet," and "strive to prevent injuries (eg, taping

ankles)." Many participants simply answered "prevention" when asked about the job responsibilities of an AT.

Misconception of ATs as Personal Trainers or Strength and Conditioning Coaches. Upon review of the data, we observed that many legislators were describing the AT's role and responsibilities as those of a personal trainer or strength and conditioning coach. As one individual commented, "I believe that it does help to encourage children to be physically fit so they can participate in sports." Although their responses varied, participants commonly described characteristics of personal trainers or strength and conditioning coaches and not ATs. Responses included "Excellent source for one-on-one conditioning and individual workout/exercise routines," "I think it is good for students to have a trained individual to guide them through their workouts, so that they do not hurt themselves by working too hard," and "Ideally make sure the students are developing strength to avoid injuries and making sure athletes are playing in appropriate safe fashion." One respondent remarked, "My opinion is that a program of strengthening and conditioning and constant physical evaluation of the student/athlete would be optimized with [a] trainer on campus."

When we asked the participants, "What is an AT?" many provided definitions applicable to personal trainers or strength and conditioning coaches. Answers included "[a]

Table 5. Perceived Value of Athletic Trainers (N = 143)^a

Perceived Value	No. (%)
Extremely valuable	48 (33.6)
Very valuable	58 (40.6)
Moderately valuable	29 (20.3)
Slightly valuable	7 (4.9)
Not at all valuable	1 (0.7)

^a Responses to the questionnaire item, "In your opinion, how valuable is an athletic trainer to the health and safety of student-athletes?"

Table 6. Respondents' Involvement in Legislative Efforts

Survey Question	Total, No.	Yes Responses, No. (%)
Has anyone voiced concerns to you about the availability or regulation of athletic trainers in your state?	143	45 (31.47)
Have you ever voted on a bill pertaining to the athletic training profession?	143	54 (37.76)
Have you voted on a bill pertaining to the athletic training profession in the last 5 years?	54	47 (87.04)
Have you voted on a bill pertaining to the athletic training profession within the last year?	47	18 (38.3)

Table 7. Regression Analysis for Variables Predicting Legislators' Knowledge

Model	R	R ²	R ² Change	F Change	Significant F Change	β
1 ^a	0.502	0.252	0.252	47.510	0.000	
2 ^b	0.566	0.320	0.068	14.105	0.000	
3 ^c	0.589	0.346	0.026	5.519	0.020	
ATS_HCPs						0.433
AT_Value						0.431
SSM_AT						0.528

Abbreviations: ATS_HCPs, the level to which legislators agreed or disagreed that athletic trainers are health care professionals (1 = *strongly disagree*, 5 = *strongly agree*); AT_Value, the perceived value of athletic trainers to the health and safety of student-athletes (1 = *not at all valuable*, 5 = *extremely valuable*); SSM_AT, legislators indicated an athletic trainer employed at the high school was 1 of 3 top sport safety measures (0 = *no*, 1 = *yes*).

^a Predictors: (constant), ATS_HCPs.

^b Predictors: (constant), ATS_HCPs, AT_Value.

^c Predictors: (constant), ATS_HCPs, AT_Value, SSM_AT.

person knowledgeable in exercise for sports,” “a person who is trained to coach people working out in a gym or perhaps in a sport,” “basically the same thing as a personal trainer at a gym,” “more of a strength/personal trainer than a medical provider,” “someone who is ‘qualified’ to train individuals in the hope of avoiding injury,” “a trained professional that supervises athletes as they do physical exercises, participate in games or workout,” and “someone who understands sport injury and trains students to compete at a higher level.”

Lack of Knowledge Regarding ATs' Educational Requirements. Although a few legislators were aware of the educational requirements for becoming an AT, many were unaware, uninformed, or incorrect. As 1 respondent said:

I would want to know what is covered in their curriculum, do they take a national certification exam, do they have a defined scope of practice, is there oversight and review of the quality of their care/outcomes?

Although many participants admitted they did not know about the educational requirements, others gave a basic but incomplete understanding. Answers included “4-year education specialized in the area,” “college degree, state certification,” “college training and board certification,”

“rotations with those who are already [athletic] trainers,” and “pass a written and practical exam.” Many participants were simply unaware that an athletic training curriculum exists and is required, which is clear in the following quote:

A person with an undergraduate degree in anatomy and physiology or biology or premed or pre-physical therapy with graduate work in a focus area and hands-on learning or someone with on-the-job training that would prepare them for the variety of sports-related injuries they may see and provide them with basic skills to assess these injuries.

Many participants were inaccurate in describing the athletic training curriculum, stating that ATs needed to be “EMT [emergency medical technician] certified” or “should have as much training as an EMT.” Others described incorrect academic paths, such as “bachelor’s degree in premed,” a “bachelor’s in exercise science or some related discipline,” or an “associate’s degree in the profession.” Some seemed to refer to the outdated internship route with “at least 2 years of training in the area,” “400 hours training,” and “rotations with those who are already [athletic] trainers.” One legislator replied:

[An AT is] a medical professional who focuses on athletes, or at least in the realm of sport, but lacks

Table 8. Regression Analysis for Variables Predicting Legislators' Perceived Value of Athletic Trainers

Model	R	R ²	R ² Change	F Change	Significant F Change	β
1 ^a	0.523	0.274	0.274	53.106	0.000	
2 ^b	0.583	0.340	0.066	14.105	0.000	
3 ^c	0.606	0.367	0.027	5.839	0.017	
4 ^d	0.627	0.393	0.026	5.945	0.016	
ATS_HCPs						0.258
Knowledge						0.171
HCP_Licensure						0.176
KnowAT						-0.310

Abbreviations: ATS_HCPs, the level to which legislators agreed or disagreed that athletic trainers are health care professionals (1 = *strongly disagree*, 5 = *strongly agree*); HCP_Licensure, the level to which legislators agreed or disagreed that health care professionals should be licensed at the state level (1 = *strongly disagree*, 5 = *strongly agree*); KnowAT, responding legislator personally knows an athletic trainer (0 = *yes*, 1 = *no*); Knowledge, legislators' knowledge pertaining to the various roles and responsibilities of an athletic trainer (determined by number of correct roles identified).

^a Predictors: (constant), ATS_HCPs.

^b Predictors: (constant), ATS_HCPs, Knowledge.

^c Predictors: (constant), ATS_HCPs, Knowledge, HCP_Licensure.

^d Predictors: (constant), ATS_HCPs, Knowledge, HCP_Licensure, KnowAT.

multiple years of training. Probably had 2 years of training and personal experience in the field.

Certain participants believed an associate's degree or certification program would suffice as preparation for an AT. These responses included "associate's in health," "athletic training certification," "2-year education," "associate or college degree," "an accredited course, but preferably an undergraduate degree," and "associate's degree and supervised period working with more experienced [AT] plus passage of exam." One legislator said, "They should complete post-high school training, possibly an associate degree in athletic training before certification."

DISCUSSION

We aimed to explore (1) state legislators' perceived value of the athletic training profession and (2) their knowledge of ATs' qualifications and responsibilities. Overall, the level of knowledge regarding ATs' qualifications and responsibilities varied widely, as did the perceived value of the athletic training profession. Gaps in knowledge remain, specifically related to the educational requirements for becoming an AT and the broad scope of qualifications ATs exhibit.

Medical Professionals

Our quantitative results demonstrated that our sample did recognize ATs as health care professionals, with 68% responding in the affirmative. It is important to note that although 28% responded neutrally to this question, 12% did not believe that ATs are health care providers. Interestingly, 68% of this legislative sample realized that ATs are health care professionals, with a greater percentage (86%) agreeing that health care professionals should be licensed at the state level. It would be pertinent to explore this topic further to better understand why some legislators do not consider athletic training to be a health care profession. Licensure for health care professionals appears to be valued by our sample of legislators, so until athletic trainers are nationally recognized as health care professionals, we may continue to face resistance to proposed regulation efforts. Given that 54% of the sample had a history of voting on legislation pertaining to the athletic training profession, it is important to continue educating this group. Recently, the National Athletic Trainers' Association has undertaken initiatives¹⁵ to advocate for ATs in an attempt to influence public opinion and policy, and we recommend that these initiatives also target state legislators to further educate this population.

The entire scope of practice (all domains in the Board of Certification *Practice Analysis*, seventh edition¹²) was not recognized or identified by any of our participants in their qualitative responses. Their apparent lack of knowledge related to the educational requirements for becoming an AT may explain our participants' lack of understanding of the various qualifications and responsibilities that accompany the profession. If legislators do not know how ATs are educated or how athletic training education is regulated (as shown in our qualitative results), they may not have a complete understanding of what ATs are medically trained to do, which may subsequently influence individual states' scope-of-practice laws.

Our qualitative results highlighted that state legislators acknowledged the roles and responsibilities of an AT with respect to injury prevention. Strength and conditioning coaches play a large role in maximizing performance while minimizing injury. If state legislators think of strength and conditioning coaches or personal trainers when they hear "athletic trainer," injury prevention as a job responsibility is an appropriate answer. This shows the need for distinguishing the various professions and clarifying how their qualifications and responsibilities, and therefore value, differ in relation to the health and safety of high school athletes.

Anecdotally, the misconception of ATs as personal trainers or strength and conditioning coaches is not a novel barrier. State legislators in our sample often described roles and responsibilities that were consistent with those of a personal trainer or strength and conditioning coach. Many high schools do not have strength and conditioning coaches, and as a result, the AT, if one is employed, often steps in to fill that role. This could explain why some state legislators reported roles such as maximizing performance, as they may be portraying what they have seen or heard occurs in the high school setting. This misconception may also explain the respondents' focus on the role ATs have in injury prevention.

Qualifications and Responsibilities

Our findings are inconsistent with previous literature on legislators' knowledge of the profession.⁸ Shepherd⁸ assessed the perceptions of superintendents and legislators in West Virginia and reported that legislators were knowledgeable regarding the qualifications and abilities of ATs. We looked at a larger, more diverse sample of legislators and determined that a majority of the respondents were unfamiliar or incorrect regarding the educational requirements, and therefore qualifications, needed to become an AT.

In our qualitative results, we observed a lack of knowledge and incorrect interpretations of the educational requirements to become an AT. Most state legislator respondents identified a bachelor's degree as most appropriate; however, it was apparent that a specific degree in athletic training was not widely recognized. To our knowledge, this is a novel finding that calls for further education of this population on the academic rigor and curriculum that precede an athletic training degree. This qualitative finding may help explain why only 16% of respondents ranked an AT as the most appropriate professional to provide medical care to an injured athlete on a daily basis. If legislators are not aware of educational standards set forth by the Commission on Accreditation of Athletic Training Education or the required successful completion of the Board of Certification examination, they may be less likely to identify our ability to provide medical care.

Although this may not seem like pertinent information for state legislators to know, their level of understanding regarding the educational requirements behind an athletic training degree may influence their overall perceptions of ATs' qualifications and the value of the profession as a whole. This could ultimately influence how they vote on legislation that comes before them regarding the profession,

such as scope of practice, regulation, funding, or access to ATs. We did observe a weak positive relationship between previous legislative efforts related to the athletic training profession and perceived value of the profession, as well as a moderate positive relationship between legislators' knowledge regarding ATs' qualifications and perceived value. A potential domino effect may occur when legislators vote on an athletic training-related bill. Although we cannot say with absolute certainty, legislators involved in efforts pertaining to athletic training were likely educated on the profession to some extent. This exposure could have resulted in improved knowledge regarding ATs and their qualifications and responsibilities, which we showed to be associated with higher perceived value of the profession. These findings highlight the importance of continued educational efforts as a means of enhancing perceived value of the athletic training field.

Overall Value

Despite the limited knowledge of our participants regarding ATs' qualifications and responsibilities, the legislators did rank ATs highly as a trusted source of medical information. This result may reflect the value that the participants placed on injury prevention as a sport safety measure. As we previously discussed, legislators in our sample emphasized the role they believed ATs play in injury prevention. Because of the value they placed on injury prevention as a safety measure, it is not surprising that they felt an AT could provide medical information. Interestingly, although ATs were ranked highly as a trusted source of medical information, the ranking was not as high as a professional who can provide daily medical care to injured athletes. It would be worth exploring this topic further to see if the misconception of ATs as personal trainers influenced these quantitative results.

LIMITATIONS AND FUTURE DIRECTIONS

Our study was not without limitations. Although we administered the survey to the entire US state legislator population, a small subset of the population participated, and it is possible that an aide or assistant completed the survey on behalf of some legislators. The legislator population was difficult to survey, as many responded saying they did not have the time or that they have a policy against participating in surveys because of the large number of requests. Ethics laws in 2 states prohibited legislators from participating in the survey because there was a chance for compensation or reward. As a result, the findings presented represent only the perceptions and knowledge of legislators in 34 states and cannot be extrapolated to all state legislators across the nation. Additionally, the legislators' areas of expertise and whether they served on a specific committee may have affected the level of knowledge they had related to the athletic training profession. As with most survey research, response bias was a possibility, whereby state legislators who were more interested or knowledgeable regarding the topic at hand may have been more inclined to participate in the survey. Despite the potential for this type of bias, our results demonstrated a wide range of understanding and knowledge of the athletic training profession among this sample of state legislators.

Future researchers should investigate the perceptions and knowledge of state legislators from states that were not represented in this study. Specifically, it would be valuable to explore the opinions of state legislators in California to gain insight into the reasons for stagnancy related to regulation of ATs in their state. Other directions include conducting a similar study for legislators at the federal level because of their influence on advancing the profession as well as implementing educational interventions for legislators (eg, capitalizing on "Hit the Hill" days and trips to state capitols) and assessing their effectiveness in changing perceptions of the profession and knowledge of the various roles, responsibilities, and qualifications of ATs. Identifying the most effective avenues for education can potentially affect the perceived value of ATs in a positive manner.

CONCLUSIONS

State legislators in our sample lacked knowledge of the athletic training profession, so continued education of this population is warranted. State legislators are positioned to further promote and recognize athletic training as an esteemed profession, but without accurate knowledge related to the roles and responsibilities, value, and education of ATs, continued advancement and legislative updates will remain a challenge. It is crucial that ATs and representatives from athletic training-affiliated organizations such as the National Athletic Trainers' Association, the Board of Certification for the Athletic Trainer, and the Commission on Accreditation of Athletic Training Education continue to educate state legislators and provide clear distinctions among athletic training, personal training, and strength and conditioning in an effort to promote favorable legislative outcomes for the profession.

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REFERENCES

1. Lyznicki JM, Riggs JA, Champion HC. Certified athletic trainers in secondary schools: report of the Council on Scientific Affairs, American Medical Association. *J Athl Train.* 1999;34(3):272–276.
2. Pryor RR, Casa DJ, Vandermark LW, et al. Athletic training services in public secondary schools: a benchmark study. *J Athl Train.* 2015;50(2):156–162.
3. Pike A, Pryor RR, Mazerolle SM, Stearns RL, Casa DJ. Athletic trainer services in US private secondary schools. *J Athl Train.* 2016;51(9):717–726.
4. Pike AM, Pryor RR, Vandermark LW, Mazerolle SM, Casa DJ. Athletic trainer services in public and private secondary schools. *J Athl Train.* 2017;52(1):5–11.
5. Bompadre V, Jinguji TM, Yanez D, et al. Washington state's Lystedt Law in concussion documentation in Seattle public high schools. *J Athl Train.* 2014;49(4):486–492.
6. Traumatic brain injury legislation. National Conference of State Legislatures Web site. <http://www.ncsl.org/research/health/traumatic-brain-injury-legislation.aspx>. November 18, 2015. Accessed June 27, 2019.
7. State regulation. Board of Certification for the Athletic Trainer Web site. <http://www.bocatc.org/state-regulation>. Accessed June 27, 2019.

8. Shepherd J. *West Virginia Legislators' and Superintendents' Perception of Athletic Training* [master's thesis]. California: California University of Pennsylvania; 2010.
9. Enrolled committee substitute for H.B. 3152. West Virginia Legislature Web site. http://www.wvlegislature.gov/Bill_Status/bills_text.cfm?billdoc=hb3152%20SUB%20ENR.htm&yr=2010&sesstype=RS&i=3152. Accessed June 27, 2019.
10. Zheng M. Conceptualization of cross-sectional mixed methods studies in health science: a methodological review. *Int J Quant Qual Res Methods*. 2015;3(2):66–87.
11. Burton LJ, Mazerolle SM. Survey instrument validity part I: principles of survey instrument development and validation in athletic training education research. *Athl Train Educ J*. 2011;6(1):27–35.
12. Henderson J. *Practice Analysis*. 7th ed. Omaha, NE: Board of Certification, Inc; 2015.
13. Thomas DR. A general inductive approach for analyzing qualitative evaluation data. *Am J Eval*. 2006;27(2):237–246.
14. Creswell JW. *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks, CA: SAGE Publications; 1998.
15. About At Your Own Risk. The National Athletic Trainers' Association Web site. <https://www.nata.org/advocacy/public-relations/at-your-own-risk>. Accessed June 27, 2019.

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