

WEST VIRGINIA LEGISLATORS' AND SUPERINTENDENTS' PERCEPTION
OF ATHLETIC TRAINING

A THESIS

Submitted to the Faculty of the School of Graduate Studies
and Research
of
California University of Pennsylvania
in partial fulfillment of the requirements for the degree
of

Master of Science

by
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California, Pennsylvania
2010

CALIFORNIA UNIVERSITY OF PENNSYLVANIA

CALIFORNIA, PA

THESIS APPROVAL

Graduate Athletic Training Education

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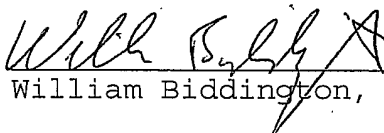
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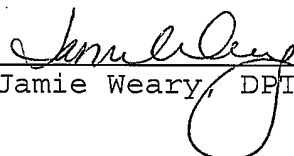
4-27-2010


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ACKNOWLEDGEMENTS

I would like to thank the following individuals for their contributions to my thesis:

My thesis committee: Dr. Linda Meyer for her insight during this study through her professional experiences; Dr. Bill Biddington for his suggestions and recommendations for grammar and formatting; Dr. Jamie Weary for her contributions to this study and for sharing her clinical knowledge throughout the year while I worked with the football team.

Dr. Tom West for setting the deadlines to keep me on track, for calling my survey "pretty", and for his MS Word formatting skills.

Ms. Carolyn Robinson and her work study students for helping get my surveys printed, and envelopes addressed and stamped.

Sarah Seabrook and Steve Lebate for helping me stuff envelopes.

A very special thank you to my mom, Brenda, and dad, Jerry, for a lifetime of patience with me. I would not be where I am today if it were not for them.

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INTRODUCTION

Certified athletic trainers (AT) are allied healthcare professionals that work under the direction of a licensed physician in the areas of sports injury prevention, evaluation, diagnosis, treatment, and rehabilitation. The settings that ATs practice are wide ranging including high school and collegiate athletic programs, professional sports teams, hospitals and sports medicine clinics, physician offices, law enforcement, the United States military, performing arts organizations, and in the industrial and commercial sectors.¹ Despite these various employment settings, the professional roles and responsibilities of ATs are not easily recognizable by those not directly involved with the athletic training profession.

Athletic training has grown into a highly specialized healthcare profession. In terms of professional development, many consider the profession to still be in its adolescent stage. That said, athletic training in the United States dates back to the late 1800's.² Since the late 19th century, more individuals have begun to engage in physical activity hence the incidence of injuries related

to the activity has also increased. While an increase in physical activity heightens the demand for athletic training services, it also increases the potential for litigation.

Most states have a documented position to help protect the public from unqualified practitioners, protect ATs against legal action and to serve the athletic population. The states that have identified the need to protect both ATs and individuals under the care of ATs have passed credentialing legislation. The remaining states' athletic training associations have acknowledged the need for legislation and are trying to make changes to their state's current position. It is the desire of the National Athletic Trainers' Association (NATA) to produce a universal, nationally accepted document to regulate athletic training in all 50 states and the District of Columbia.¹

It is the NATA's position that all secondary schools have a full-time, on-site, AT available to student athletes.³ The number of students participating in athletics at the high school level was 7,536,753 as reported by the 2008-2009 high school athletics participation survey.⁴ Athletic trainers employed in either the secondary school or clinic/secondary school setting numbered approximately

6,803 according to the 2008 NATA membership statistics.⁵ The need for employment of ATs in secondary schools is evident by the ratio of student athletes to ATs working in this setting.

Until February 2010, West Virginia (WV) was one of three states with no state regulation over the practice of athletic training; Alaska and California are the other two states.⁶ Athletic trainers in states without state regulations are more vulnerable to litigation. Therefore, WV is a state having difficulty providing adequate athletic training coverage to its student athletes. There are numerous high schools in WV that do not employ ATs as defined by the Board of Certification (BOC). The West Virginia Department of Education (WVDE) does recommend that ATs, as defined by West Virginia Policy 5112 (WV P5112) (Appendix C1), cover all varsity high school football practices and games, but this mandate does not guarantee the presence of a BOC AT. WV P5112 is worded to allow county school boards in WV to employ other personnel on a permit or limited football authorization to fill the role of an AT without violating any state laws if a BOC AT cannot be employed. These employees hired to fulfill WV P5112 may be very competent individuals in their respective fields, but they lack the concentrated training and

experience in the prevention, evaluation, treatment, and rehabilitation of athletic injuries.⁷

The purpose of this study was to survey the WV state legislators (WVL) and WV county school superintendents (WVS) to collect their perceptions and knowledge of BOC ATs' scope of practice and professional role. West Virginia P5112 is governed by the WVDE and allows for multiple types of state specific certification in the form of professional service certificate, permit, and limited football authorization to those hired by school boards.⁸ This paper will investigate WVLs' and WVSs' opinions of ATs' qualifications and abilities to professionally practice within the six domains of athletic training as described by the BOC Role Delineation Study (RDS) 5th ed.⁹

METHODS

The purpose of this study was to determine the perceptions of WVLs' and WVSs' regarding the athletic training profession. The goal is to provide the West Virginia Athletic Trainers' Association (WVATA) and NATA with survey results that can be used to assist them in pursuing state regulation of athletic training in WV. The methods section describes how this research was carried out and includes the following: research design, preliminary research, subjects, instruments, procedure, hypotheses, and data analysis.

Research Design

A descriptive research design was used in conjunction with the Athletic Training Survey (ATS) to conduct this study (Appendix C2).

Subjects

The target subjects (N=189) in this study consisted of members of the WV legislature (n=134) comprised of state senators (n=34) and house delegates (n=100), and WV county school superintendents (n=55). All members of this

population were mailed the ATS to be completed and returned to the researcher. Included with the survey was a cover letter (Appendix C3) written by the researcher introducing himself and explaining the purpose of the study. The subjects then completed the ATS and returned it to the researcher at California University of Pennsylvania via the United States Postal Service (USPS) and informed consent by the WVLs and WVSs was implied through the anonymous return of the survey. Each participant was assured that his or her response would remain confidential. The Institutional Review Board (IRB) at California University of Pennsylvania approved the study and the participants (Appendix C4).

Preliminary Research

A pilot study for this project was not required because all questions were derived directly from the six domains of athletic training defined in the BOC RDS 5th ed. Validity and reliability were already tested in two phases. First, by a panel of experts assembled by the BOC in November 2002 to identify the domains, task, knowledge, and skills consistent with the essential elements of athletic training.⁹ The BOC RDS panel included ATs and other diverse professionals that included: a lawyer, physician, parent,

and athletic administrator.⁹ The second phase required a sample of 5,000 ATs to review and validate the work of the panel, in particular, to evaluate the "importance and criticality" for the proposed domains and tasks by way of a survey.⁹ The results of the survey validated the domains and tasks identified by the panel of experts.⁹

Instruments

The researcher created the entire survey with all questions derived from the six Domains of athletic training described in the BOC RDS 5th ed. Demographic information was collected and includes: gender, age, current position, and years of experience as a WVL or WVS. Additional demographic questions pertaining to participation in athletics, injury history resulting from playing sports, and if the services of an AT were utilized if injured was also asked of the survey participants. This series of questions also consisted of questions related to the survey contributor's children and their participation in athletics. Following the demographic questions, the ATS contained 35 Likert scale questions derived from the six domains as defined in the BOC RDS 5th ed. with a Likert scale ranging from: 1 - strongly disagree, 2 - somewhat

disagree, 3 - no opinion, 4 - somewhat agree, 5 - strongly agree. The answers of the surveys were analyzed using an independent samples t-test to examine the hypothesis.

The ATS was distributed by the researcher to each WVL and WVS using the USPS. Distribution of the survey using the USPS was chosen because it was more formal, hence more likely to be seen by the targeted audience compared to emailing the survey.

Procedures

The IRB at California University of Pennsylvania approved the study before it was sent to any participants. At this same time, a cover letter was developed and included with the survey stating the purpose, directions, risks involved, and informed consent. The names and mailing addresses of all 134 WVLs were obtained from the WV legislature website available at: <http://www.legis.state.wv.us/>. The same information was found about all 55 WVSs at the WVDE website available at: <http://wvde.state.wv.us/>. The survey was mailed by the researcher using the USPS to each WVL and WVS with the cover letter, and a postage paid, pre-addressed envelope to return the completed questionnaire to the researcher at

California University of Pennsylvania. Postage for the study was allotted from the graduate athletic training program budget. The survey was designed to take less than 10 minutes to complete.

Hypothesis

The following was the hypothesis examined in this research.

1. WVSs will have a significantly greater perception compared to WVLs regarding the scope of practice of an AT as defined by the six Domains in the BOC RDS 5th ed.

Data Analysis

An independent samples t-test was performed to compare the WVLs' answers to the WVSs' responses. All data was analyzed by SPSS version 17.0 for Windows with a level of significance of 0.05.

RESULTS

The following section will reveal demographic data and hypothesis testing obtained through the ATS.

Demographic Information

The ATS was mailed to a total of 189 WVLs and WVSs. The WV legislature is comprised of 34 state senators and 100 house delegates. The WVSs represent each county in WV and consists of 55 individuals. A total of 79 surveys were returned resulting in a completion rate of 41.8%. Table 1 is a breakdown of the frequency of return by position.

Table 1. Frequency of Return

Position	Frequency (%)
Superintendents	40 (50.6)
Legislators	39 (49.4)

Table 2 represents the frequency for the gender of the participants whom returned the survey by position.

Table 2. Frequency for Gender

Gender	Superintendent (%)	Legislator (%)
Females	9 (22.5)	7 (17.9)
Males	31 (77.5)	32 (80.0)

Table 3 reports the frequency for participants grouped by age class for both positions. There were nine individuals whom did not provide their age on the returned survey.

Table 3. Frequency for Age

Age	Superintendent (%)	Legislator (%)
< 39	0 (0.0)	3 (7.7)
40 - 49	6 (15.0)	2 (5.1)
50 - 59	21 (52.5)	11 (28.2)
60 - 69	11 (27.5)	13 (33.3)
> 70	0 (0.0)	3 (7.7)
Not Given	2 (5.0)	7 (18.0)

Table 4 reports the frequency for individuals grouped by classes for the total number of years at their current

position. All participants whom returned the survey had been at their current position for greater than one year.

Table 4. Frequency of Years at Current Position

Years	Superintendent (%)	Legislator (%)
1 - 5	29 (72.5)	11 (28.3)
6 - 10	6 (15.0)	15 (38.4)
11 - 15	2 (5.0)	5 (12.8)
16 - 20	0 (0.0)	8 (20.5)
> 21	3 (7.5)	0 (0.0)

Table 5 represents responses given to the survey question that asked if the individual participated in school sponsored athletics in high or college.

Table 5. Frequency that Participated in Sports

Participation	Superintendent (%)	Legislator (%)
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Yes	29 (72.5)	30 (77.0)
No	11 (27.5)	9 (23.0)

Table 6 shows those individuals whom sustained an injury while participating in athletics in high school or college.

Table 6. Sustained an Injury

Injured	Superintendent (%)	Legislator (%)
Yes	21 (52.5)	18 (46.2)
No	19 (47.5)	21 (53.8)

Table 7 examines those survey participants whom have children that are high school age or older.

Table 7. Have Children High School Age or Older

Children	Superintendent (%)	Legislator (%)
Yes	32 (80.0)	27 (69.2)
No	8 (20.0)	12 (30.8)

Table 8 illustrates those survey participants whom have children that did or currently are participating in sports in high school or college.

Table 8. Children that Participate(d) in Athletics

Participation	Superintendent (%)	Legislator (%)
Yes	31 (77.5)	24 (61.5)
No	9 (22.5)	15 (38.5)

Table 9 shows those with children whom participate(d) in athletics in high school or college and sustained an injury while playing sports.

Table 9. Children Injured Participating in Athletics

Injured	Superintendent (%)	Legislator (%)
Yes	24 (60.0)	16 (41.0)
No	16 (40.0)	23 (59.0)

Table 10 illustrates those participants and their children that were injured participating in athletics whom utilized the services of an AT.

Table 10. Utilized the Services of an AT

AT Services	Superintendent (%)	Legislator (%)
Yes	22 (55.0)	13 (33.3)
No	18 (45.0)	26 (66.7)

Hypothesis Testing

The hypothesis was tested using an alpha level of .05.

Hypothesis: WVSs will have a significantly greater perception compared to WVLs regarding the scope of practice of an AT as defined by the six Domains in the BOC RDS 5th ed.

To test the acceptability of this hypothesis an independent samples t-test was utilized. No significant difference was found $t_{77} = .589, P > .05$. The mean of the WVSs 146.9 ± 14.9 was not significantly different from the mean of the WVLs 143.9 ± 16.1 . Table 11 illustrates the independent samples t-test used to test for significance.

Table 11. Hypothesis Results

Position	<i>n</i>	<i>M</i>	<i>SD</i>	<i>P</i>	<i>t</i>
Superintendents	40	146.9	14.88		
				.589	.853
Legislators	39	143.9	16.10		

Conclusion: The hypothesis was not supported. There was no significance between WVSs' and WVLs' perceptions of athletic training.

Additional Findings

Further analysis of the data was conducted. Each WVS and WVL was asked to indicate on the ATS if he/she participated in athletics while in high school and/or

college. An independent samples t-test comparing the mean scores of the WVSs and WVLs that did or did not participate in athletics in high school and/or college found a significant difference between the means of the two groups $t_{77} = .024$, $P < .05$. The mean of the WVSs and WVLs that answered "yes" was significantly higher 146.1 ± 18.4 than the mean of the "no" group 146.0 ± 10.2 . This indicates that WVSs and WVLs whom participated in high school and/or collegiate athletics are more likely to understand the duties and skills of an AT than those who have no competitive athletic history. Table 12 illustrates the independent samples t-test used to test for significance.

Table 12. Participation in Athletics Significance

Participation	<i>n</i>	<i>M</i>	<i>SD</i>	<i>P</i>	<i>t</i>
Yes	59	146.1	18.4		
				.024	.035
No	20	146.0	10.2		

Tables 13 - 18 show the means of each of the 35 Likert questions. Each table includes questions from the ATS for which of the six Domains it represents. The six Domains

include: prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and professional responsibility.

Table 13. Domain I: Prevention

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
11	4.4 (0.70)	4.3 (0.76)
12	4.2 (0.75)	4.1 (0.85)
13	4.4 (0.75)	4.3 (0.80)
14	4.2 (0.84)	4.1 (0.77)
15	4.5 (0.60)	4.3 (0.73)
16	4.8 (0.42)	4.6 (0.49)
17	4.3 (0.79)	4.2 (0.80)
18	3.8 (0.89)	3.8 (0.94)
19	4.9 (0.30)	4.8 (0.54)

Table 14. Domain II: Clinical Evaluation and Diagnosis

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
20	4.2 (0.80)	4.1 (0.80)
21	4.4 (0.78)	4.3 (0.89)
22	4.3 (0.80)	4.3 (0.82)
23	3.8 (1.16)	3.7 (0.93)
24	4.2 (0.77)	4.1 (0.68)

Table 15. Domain III: Immediate Care

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
25	4.9 (0.36)	4.5 (1.00)
26	4.8 (0.49)	4.4 (0.94)
27	4.6 (0.74)	4.4 (0.96)
28	4.3 (0.94)	4.7 (1.33)

Table 16. Domain IV: Treatment, Rehab., Reconditioning

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
29	4.8 (0.38)	4.6 (0.63)
30	4.8 (0.42)	4.6 (0.72)
31	3.7 (1.08)	3.9 (0.91)
32	3.7 (1.03)	3.7 (0.94)
33	3.9 (0.88)	4.3 (0.64)
34	4.2 (0.76)	4.4 (0.64)
35	4.4 (0.93)	4.4 (0.77)
36	3.9 (1.03)	3.8 (1.01)
37	4.1 (0.85)	4.1 (0.87)
38	4.4 (0.90)	4.1 (0.85)

Table 17. Domain V: Organization and Administration

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
39	3.7 (1.11)	3.5 (0.88)
40	2.9 (1.10)	2.8 (1.20)
41	4.1 (0.67)	4.0 (1.04)

Table 18. Domain VI: Professional Responsibility

ATS Question	Superintendents Mean (SD)	Legislators Mean (SD)
42	4.8 (0.50)	4.4 (0.99)
43	4.8 (0.63)	4.7 (0.57)
44	3.0 (1.05)	3.5 (1.19)
45	3.2 (1.07)	3.3 (1.22)

DISCUSSION

The discussion section is divided into three subsections: discussion of the results, conclusions, and recommendations for future research.

Discussion of the Results

The purpose of this study was to determine the WVSs' and the WVLs' perceptions of the athletic training profession. Specifically, this study evaluated their perceptions of the scope of practice of ATs as defined by the RDS Domains. This was accomplished by evaluating responses given on the ATS.

The ATS was created by the researcher from the RDS 5th ed. and included 35 Likert style questions with a scale of 1, 2, 3, 4, 5 where 1 = strongly disagree, 2 = somewhat disagree, 3 = no opinion, 4 = somewhat agree, and 5 = strongly agree. The ATS also contained ten demographic questions. Since the questions were derived directly from the six Domains of athletic training contained in the RDS, all 35 Likert questions theoretically should have been

answered "strongly agree". There were no questions in the ATS that were included to determine if the participant could recognize what is out of an AT's scope of practice. The goal of the survey was to examine the perception of the participants' knowledge of what duties they perceive an AT is qualified and has the ability to perform.

The findings of this research did not support the hypothesis that WVSS' have a significantly greater perception of the athletic training profession compared to WVLS'. It was the opinion of the researcher that WVSS would have a greater understanding of the skills and professional role of an AT due to being involved in the hiring process of ATs at high schools and having more personal contact with ATs in the employment setting. A possible reason for survey results not supporting the hypothesis is that while the ATS was in the hands of participants, the WVLS were in session voting on House Bill 3152 (H.B. 3152) to establish the Athletic Training Registration Act (Appendix C5). Therefore, it is the belief of the researcher that WVLS were up-to-date on the qualifications and abilities of ATs due to the WVATA lobbying and educating them about athletic training to pass H.B. 3152.

The passing of H.B. 3152 is a huge triumph for the WVATA, NATA, and ATs in WV. This helps ensure title protection for BOC ATs practicing in WV and gives those under the care of ATs in WV confidence that the care they receive is given from a qualified healthcare professional. While registration in WV is a step in the right direction, the WVATA and NATA must continue to pursue licensure to be included as equals with healthcare professionals such as PTs and occupational therapists (OT). As H.B 3152 is currently written, ATs register through the WV Physical Therapy board. Physical therapy associations regularly opposed any legislation athletic training associations proposed to advance the profession and were a major opponent of WV passing the Athletic Training Registration Act.

To date there is not any published research that has evaluated the perception of WVLs or any other state's legislators regarding their perception of the athletic training profession. The results of this study show that WVLs have a realistic and favorable perception of athletic training and have practical knowledge of the scope of practice of ATs.

Richard Ray is credited for conducting the first study of secondary school administrators by surveying

Michigan superintendents in 1987.¹⁰ Ray concluded that superintendents in Michigan have a relatively realistic view of the job functions of an AT, but have an extremely inaccurate perception of the importance of certification for ATs.¹⁰ Gould and Deivert conducted a similar study in 2003.¹¹ The authors surveyed secondary school administrators (SSA) which included superintendents in NATA District four. It was concluded by the researchers that superintendents have accurate knowledge of the athletic training profession, but have an inaccurate perception of the worthiness ATs can provide.¹¹ The results from the ATS regarding WVSs were very similar to the survey findings by Ray, Gould and Deivert pertaining to the perceptions of superintendents. The results of the ATS for this study show that WVSs have an overall accurate and realistic knowledge base of the skills and abilities of an AT.

Upon further examination of the ATS, it was discovered that question five was significant. This question asked if the survey contributor if he/she participated in athletics while in high school and/or college. A significant difference was found between the means of WVSs and WVLs that did or did not play sports in high school or college. This is logical because individuals that were involved in athletics were more likely to have personal interaction

with an AT, therefore, are more familiar with the scope of practice of an AT.

Additional examination was done using the ATS by dividing the 35 Likert questions into each of the six RDS Domains from which the question was developed. The means and standard deviations are located in tables 13 - 17.

The nine questions contained within Domain one asked the WVSs and WVLs their perception of an AT's ability to "discern, evaluate, and communicate risk associated with participation in athletic and physical activities."⁹ The means were above 4.0 for both WVSs and WVLs for questions in Domain one except question 18. Question 18 asked about an AT's ability to recognize the signs/symptoms of eating disorders and did return a lower mean response of 3.8 ± 0.89 for WVSs and 3.8 ± 0.94 for WVLs. Overall, both groups' ATS answers support that ATs are competent in the skills pertaining to prevention of injuries and conditions.

There were five questions contained on the ATS from Domain two pertaining to clinical evaluation and diagnosis and an AT's abilities to "practice in the area of diagnostic reasoning and medical decision making."⁹ Again the means were above 4.0 for WVSs and WVLs for Domain two except for question 23. Question 23 asked about an AT's ability to make return to play decisions. The means for

WVSS was 3.8 ± 1.16 and for WVLs was 3.7 ± 0.93 . It is usually within an AT's scope of practice to make return to play decisions regarding injuries an athlete may sustain during a game or practice. Domain two overall also revealed a positive perception of an AT's ability to evaluate and diagnosis musculoskeletal injuries.

The four questions from the ATS derived from Domain three yielded the most favorable perception from both WVSS and WVLs. Domain three addresses immediate care and an AT's ability to provide "direct services rendered by members of health professions for the benefit of a patient."⁹ All means were 4.3 and above. The skills contained in Domain III that deal with the immediate care of athletes on the field are the most recognizable by people not directly involved with an AT and probably a reason for the high positive return.

Domain four contained ten questions pertaining to an AT's ability and qualifications to treat, rehabilitate, and recondition injuries. This set of questions included six questions that show means of 4.1 for both WVSS and WVLs. Question 33 pertained to performing therapeutic massage which revealed a difference in means between WVSS of 3.7 ± 1.08 and WVLs of 4.3 ± 0.64 . There were three questions that resulted in means ranging from 3.9 - 3.7 for both WVSS

and WVLs. Questions 31, 32, and 36 asked about an AT's ability to use electrical stimulation to reduce pain, use ultrasound for sore muscles, and create a treatment plan. Surprisingly to the researcher, question 37 which asked about an AT's ability to rehabilitate injuries yielded favorable results from WVSs and WVLs. ATs' rehabilitation knowledge is an area that has been challenged by groups such as the American Physical Therapy Association (APTA) and these responses on the ATS by WVSs and WVLs are encouraging.

Domain five discusses organization and administration which is a "series of plans, policies, and procedures by which ATs organize the athletic training program to ensure responsive and efficient operations in accordance with the BOC *Standards of Practice* and NATA *Code of Ethics*."⁹ There were three questions pertaining to this domain on the ATS. Questions 39 and 40 showed means less than 3.9 for both WVSs and WVLs. The result for question 40 about an AT's ability to manage a health care facility yielded the lowest mean for any question on the ATS for both WVSs 2.9 ± 1.10 and WVLs 2.8 ± 1.20 . Question 39 resulted in a mean of 3.7 ± 1.11 for WVSs and 3.5 ± 0.88 for WVLs which asked about an AT's ability to establish policies and procedures for the delivery of healthcare. Perhaps the reason for the low

result for questions pertaining to healthcare administration is that the wording of the questions made the WVSs and WVLs in vision an AT doing the job of a healthcare administrator such as an individual that would manage a hospital.

Lastly, Domain six entails professional responsibility and "acknowledges that competent practice involves compliance with ethical, legal, and other professional standards whose purpose is to protect the public."⁹ The ATS contained four questions pertaining to Domain six. The means for questions 44 and 45 were 3.5 or below for both WVSs and WVLs. Question 44 asked about an AT's ability to receive third party reimbursement from insurance companies for services. WVSs had a mean of 3.0 ± 1.05 and WVLs had a mean of 3.5 ± 1.19 . Question 45 asked if ATs can reduce workers compensation claims in the industry setting and resulted in WVSs with a mean of 3.2 ± 1.07 and WVLs with a mean of 3.3 ± 1.22 .

The findings of this study were limited to only WVSs' and WVLs' perceptions of athletic training. In addition, the WVSs and WVLs were given the option to allow an assistant or staffer complete the ATS if time did not allow them to personally complete the survey. There were seven surveys returned by individuals that did indicate

themselves as staffers and the results were included with WVLs. The ATS included questions from all six Domains contained in the RDS, but the researcher did not choose the same number of questions for each domain. In addition, the Likert scale for the ATS included a choice of "no opinion" that allowed the participant to possibly not give their true perception if perhaps he/she believed a defense of their answer would be needed in the future. As one WVL stated in a note attached to a blank returned survey, "...politicians do not take tests because it can come back to hurt them in the future."

Conclusions

The inability to pass athletic training legislation in favor of ATs in WV is not due to the lack of understanding or knowledge by WVLs or WVSSs. The results from the ATS overwhelmingly show that WVLs and WVSSs have accurate knowledge of the abilities and qualifications of ATs in Domains one through four and have average knowledge of Domains five and six. Therefore, the researcher believes that financial concerns are the main issue most WVSSs and WVLs have in supporting or passing legislation that would advance the athletic training profession in WV.

West Virginia is a poor state compared to most of the other 49 states and has the lowest paid teachers in its schools. It is the impression of the researcher that WV would have an extremely difficult time financially creating and supporting ATs in public schools in WV at any level. While WVSs and WVLs possess accurate knowledge of the athletic training profession for Domains one through four that entail directly caring for patients, they have an inaccurate perception of an AT's ability to establish healthcare policies and procedures as described in Domain five and imprecise knowledge of an AT's professional responsibility to comply with ethical, legal, and other professional standards in place to protect the public as defined in Domain six. Hopefully with the passing of the Athletic Training Registration Act, the worth and significance of ATs will be fully recognized by WVS and WVL.

Recommendations

It is the hope of the researcher that the results from this study will be utilized by the WVATA and NATA to continue to advance the athletic training profession in WV. This study is the first to formally survey WVLs and WVSs

about their perceptions of an AT to work within the Domains in the RDS. The passing of the WV Athletic Training Registration Act has put ATs in WV in a better position, but further progress is still needed. Currently, ATs in WV will register through the WVPT board and historically this has not worked in the ATs favor for ATs in states working under their PT board. The results of the ATS can be used by the WVATA to focus its efforts to educate WVLS and WVSS in the Domains that collectively yielded lower mean scores on the ATS to achieve licensure.

The researcher suggests the following modifications to this study in the future. First, the ATS contained a Likert scale of 1, 2, 3, 4, 5. Elimination of the 5 point Likert scale and using a 4 point scale so participants cannot select "no opinion" may yield more accurate results. Another change to the ATS could be to do away with the Likert number scale and just ask the participant "yes" or "no" if an AT is qualified and has the ability to perform what the question asks. The researcher does believe that using the USPS to deliver the survey is the best choice as the response was adequate from both WVSS and WVLS because emailed surveys most likely will not reach the intended recipient especially when surveying WVLS.

Second, there is a need to compare the answers from WVLs and WVSs to the legislators and superintendents of other states so survey results can be compared and analyzed. In particular, surveys could be sent to WVLs and WVSs, and then compared with legislators and superintendents from a state(s) that has licensure.

Third, the individual positions of superintendent, senator, delegate, and staffer could be analyzed using an ANOVA to test for significance.

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APPENDICIES

APPENDIX A
Review of Literature

REVIEW OF LITERATURE

The historical evolution of the athletic training profession compared to other healthcare professions is very different. Athletic training originated outside of the clinical medical system when educational and sports organizations were developed in the late 1800s and early 1900s. Establishment of the NATA in 1950 led to the creation of standards for professionalism and education of athletic training. However, the extent to which the profession was viewed as a legitimate member of the medical community was dramatically increased by the American Medical Association (AMA) recognizing athletic training as an allied health profession in 1990. Even though national board certification, state regulation and educational program accreditation standards have established a very high degree of professional competence to deliver health related services to the physically active population, the identity of the athletic training profession remains strongly linked to the image of a minimally qualified technician that tapes ankles and supplies water for a sports team.¹

Evolution of Athletic Training and NATA

The roots of athletic training date back to the beginning of competitive sports. The first competitive sports organized with rules were started by the ancient Greeks.² However, it was not until centuries later that athletic training began to take shape as the profession is today. In 1881, Harvard University hired the first ATs followed soon after by the University of Oklahoma in 1887.^{2,3} In 1898, the first textbook describing procedures of how to treat athletic injuries was published in England.³

The *Trainers Bible* and articles related to the treatment and management of football injuries were published in the early 1900's.⁴ In 1916, the *Trainers Bible* was written by Dr. Samuel Bilik, an AT at the University of Illinois. He is considered by many to be the "The Father of Athletic Training."⁴ This book was the first devoted entirely to the discipline of athletic training. Dr. Bilik also worked with the football team and taught courses exclusively planned for ATs at this same time.²⁻⁴

Chuck Cramer of Cramer Chemical Company located in Kansas, and Bill Frey from the University of Iowa are recognized as starting the NATA in 1938.^{3,5} The purpose of the NATA was to provide networking opportunities for ATs

and those interested in the profession to share ideas. The *Trainers Journal* was started in 1941 as a result of their interest to advance research and continuing education of ATs. Cramer also published a periodical called the *First Aider* during this same time period.^{3,5} The NATA halted operations, and the *Trainers Journal* stopped being circulated due to World War II in 1944.^{2,3}

After a brief period of inactivity, five regional associations that formed during the idle period during World War II consolidated in 1950 to create the current NATA. Upon re-organization of the NATA, professional growth began. Moving to educate the group of professionals, *The Journal of the National Athletic Trainers' Association* was initially published in 1950. Today, the *Journal of the National Athletic Trainers' Association* is known as the *Journal of Athletic Training*. Additionally in 1950, the NATA wrote its first code of ethics.^{3,4}

The next substantial development of the NATA was setting educational standards for potential ATs. These standards were the responsibility of the Committee on Professional Advancement with the goal of elevating the standard of athletic training in 1959. By rule of this committee, candidates satisfying the minimum requirements

earned a certificate of completion. In 1968, two sub-committees were appointed by the Committee on Professional Advancement. The task of one committee was to govern which institutions of higher education could offer an athletic training curriculum.³ The responsibility of the other sub-committee was to create certification standards and in 1970 the first examination was administered by the NATA.^{3,4}

Today, the Commission on Accreditation of Athletic Training Education (CAATE) administers athletic training education curriculums in colleges and universities. Initially, the Joint Review Committee on Educational programs in Athletic Training (JRC-AT) was incorporated in 1991 to oversee curriculums in athletic training. The JRC-AT was a committee on Accreditation under the Commission on Accreditation of Allied Health Educational Programs (CAAHEP). In 2006, the JRC-AT became independent from CAAHEP and changed its name to the CAATE. CAATE is the agency responsible for the accreditation of 350+ entry-level athletic training education programs at colleges and universities. The American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the American Orthopedic Society for Sports Medicine (AOSSM) and the NATA cooperate to sponsor CAATE and collaborate to

develop the "Standards for Entry-Level Athletic Training Educational Programs."⁶

Support from the AMA has been vital to the growth and advancement of the athletic training profession. In 1967, the AMA recognized ATs as a part of athletic health care.⁵ Athletic trainers were officially accepted in 1990 by the AMA as a legitimate member of the allied health profession.³ Unanimously in 1998, AMA leaders announced that it was their recommendation that ATs be available at every high school for student athletes.⁵

Today, the NATA, BOC, and CAATE are all independent agencies that work together to oversee the athletic training profession. The NATA is headquartered in Dallas, Texas with global membership totaling more than 30,000 and includes a full-time staff. It is the mission of the NATA to "enhance the quality of health care provided by certified athletic trainers and to advance the athletic training profession."⁷ The BOC also has full-time employees and is located in Omaha, Nebraska. It sets the standards for the practice of athletic training. The BOC is the sole accreditation certifying agency for ATs in the United States. CAATE is located in Round Rock, Texas and employs two full-time administrative personnel. Leadership consists of BOC AT representatives from institutions

offering athletic training educational programs, an NATA representative, physicians from the sponsoring organizations, and one public member.⁸ The ATs are appointed by the NATA and the physicians are appointed by their respective professional association.⁸

Role of the Athletic Trainer

Until 1989, the BOC was operated as a committee within the NATA (NATABOC). NATA leaders realized that an independent entity was needed to set the standards for practice of athletic training. Every five years the BOC publishes the *RDS* to identify essential knowledge and skills for the athletic training profession. This publication also serves as the blueprint for development of the certification exam. The current *RDS* is the fifth edition and is valid from 2006 to 2011. There are six Domains defined by the *RDS* that detail the professional role and scope of practice of ATs. The Domains include: prevention, clinical evaluation and diagnosis, immediate care, treatment, rehabilitation and reconditioning, organization and administration, and professional responsibility.⁹ Each Domain is its own entity and builds on

one another to make certain individuals receive proper care.⁹

Need for Credentialing of Athletic Training

The NATA, BOC, and CAATE are constantly elevating the standards of the profession of athletic training. The most recent change pertains to how an individual attains the right to sit for the BOC examination to earn the certified athletic trainer (ATC) trademark credential.

Historically, the two most popular routes a prospective AT could take to be eligible for the certification examination was candidates could have attended a college or university offering an undergraduate NATA or CAAHEP (now CAATE) approved curriculum for athletic training, or a second way was the candidate could complete an internship. In January of 2004, the BOC eliminated the internship route to certification.¹⁰ Elimination of the internship option means that all athletic trainers certified since 2004 have met the same educational standards.

Every candidate that qualifies to take the BOC examination has earned a bachelor's degree in athletic training or completed a similar bachelor's program with a

concentration in athletic training from a CAATE accredited institution. Today, 20 institutions have implemented an entry level master's route for individuals that already hold a bachelor's degree and have met prerequisite course work.¹¹ Additionally, there are also 14 universities that offer NATA accredited master's of athletic training programs for individuals that already have a bachelor's degree in athletic training looking to further their education.¹²

State Regulation

While the athletic training associations have made great strides to advance the profession, credentialing regulation of athletic training at the state legislative level is still a concern in some states. Most state licensing boards in the United States have restricted the scope of practice by establishing rules and regulation creating the potential for practice violations.¹³ Athletic training regulation in these states is governed by the same state practice acts that apply to other health professions like: medicine, physical therapy, and dentistry.¹⁴

All but three states have passed legislation to regulate athletic training. The other 47 states have some

form of athletic training regulation in the form of licensure, certification, registration, or exemption.

The table below represents the classifications of each state's athletic training regulatory status according to the BOC.¹⁵

Table 19: Athletic Training State Regulatory Status

Credential	State
Licensure (38)	Alabama, Arizona, Arkansas, Connecticut, Delaware, Georgia, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, Wyoming
Certification (5)	Kentucky, Louisiana, New York, Pennsylvania, South Carolina
Registration (4)	Colorado, Oregon, Minnesota
Exemption (1)	Hawaii
No Regulation (2)	Alaska, California, West Virginia*

* WV passed registration in February 2010

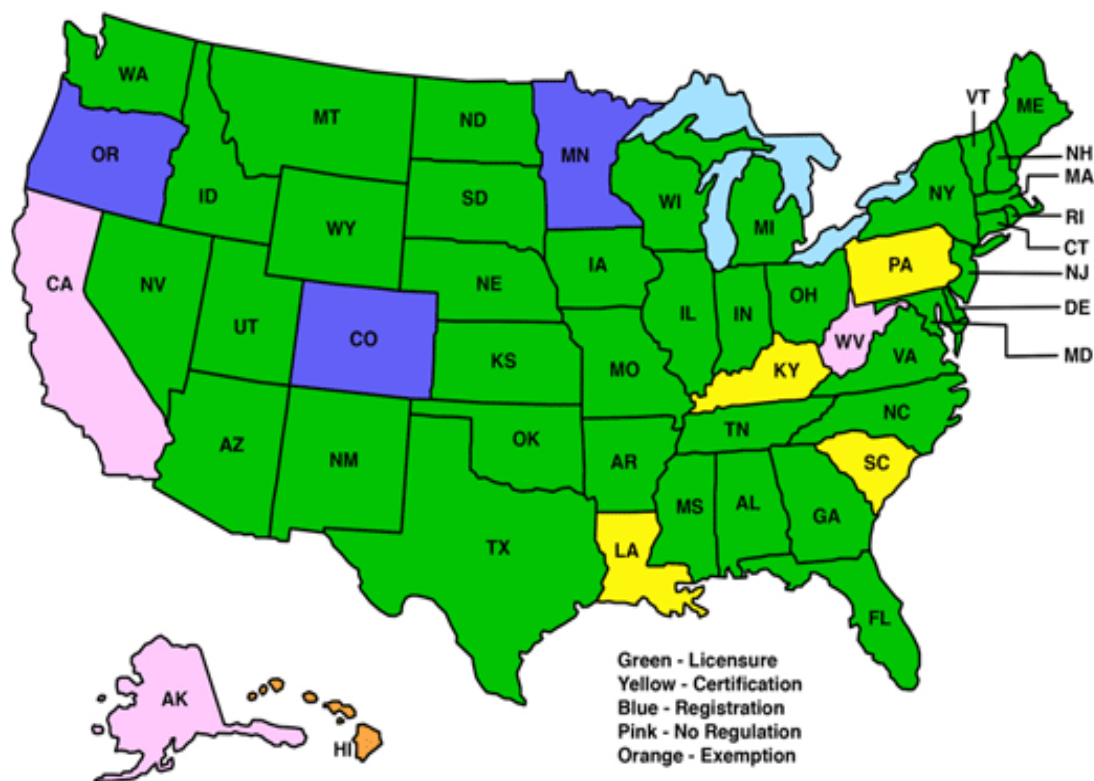


Figure 1: Athletic Training State Regulatory Status Map¹⁵

Athletic Training Regulation in West Virginia

The regulation of athletic training in WV is a unique state of affairs. Only those employed by the WV public school system are included in the state practice act, WV P5112. This means that ATs working in WV in any other setting other than the WV public school system are not covered by WV P5112. The WVDE governs WV P5112 which

outlines the minimum requirements of public school employees and defines the regulations for employees serving as ATs. The WV P5112 definition of those that may serve as an AT and the BOC definition are very different. WV P5112 was last updated and became effective in 2004.¹⁷

History of West Virginia Policy 5112

West Virginia drafted and approved a formal policy in 1980 regarding ATs in its high schools. The legislation was known as the *Policy of the West Virginia Board of Education on Athletic Trainers in Public Schools of West Virginia*, Policy 2422-13, and was allocated in 1981. Policy 2422-13 was approved to provide for the professional development of an individual to function as a state certified athletic trainer to improve the health care of student athletes in the public schools of WV. In the short-term, this policy required one person from every school sponsoring football to complete an athletic training workshop by the 1980 - 1981 academic year. In the long-term, each county board of education was required to hire a state certified athletic trainer in middle, junior and senior schools that offer football by the 1985-1986 academic year.¹⁸

The WVDE amended Policy 2422-13 replacing it in 1983 with Policies 5013 and 5112. The roles and functions of ATs in state public schools were defined by Policy 5013 and Policy 5112 explained the certification requirements and program details to achieve a state of WV AT certificate. Defined by Policy 5112, the professional role of the AT in WV was to instruct/advise, evaluate, provide emergency care and rehabilitate student athletes, and perform administrative duties relative to athletic training.¹⁸

Although Policy 2422-13 had excellent intentions, it became obvious the expectation of all county school boards to be complaint by the 1985 - 1986 academic year was an unrealistic goal. Therefore, in 1984, WV P5112 was amended to grant more time for required compliance until the 1987 - 1988 school year. School boards that were noncompliant were required to submit a report that efforts were exhausted to become complaint and had to submit an outline of their plan to fill this vacancy by the deadline.¹⁸

Revisions extending compliance with WV P5112 were amended in 1985 for the 1986-1987 academic year and again in 1988 for compliance for the 1990-1991 school year. This revision changed the wording of WV P5112 for high schools to explain that each county's Board of Education must hire a WV state certified athletic trainer for all high school

football activities including practices and games. However, a waiver could be granted from the county Board of Education if an AT was not employed. Also at this time, Policy 5013 which is the governing principles for employment and assignment of state certified athletic trainers in public schools of WV, was merged to WV P5112.¹⁸

Statistics were reviewed in 1990 of the results of WV P5112 during the 1989-1990 school year. Of the 140 WV high schools sponsoring football teams, only 35% had state certified athletic trainers. Of this 35% of schools, 15% had state certified athletic trainers working on an expired certificate. It was reported by 26% of schools that there was no state certified athletic trainer employed at all. The remainder of the schools met the WV P5112 AT requirement by hiring a school employee on a waiver basis.¹⁸

It was five years later before WV P5112 would be amended again. In 1995, changes were made to allow NATABOC certified ATs to obtain WVDE authorization to work as ATs within its schools. The goal of this change was to increase the number of ATs working in WV's public schools.¹⁸

Several years passed by from the last change to WV P5112. Then in 2004, WV P5112 was amended to state that if the county Board of Education is unable to employ a BOC certified AT or a state certified AT, then a relevant

healthcare worker like a physician, nurse, chiropractor, paramedic, emergency medical technician, or physician assistant may be hired under a limited AT authorization.¹⁸

The lack of qualified state certified ATs in WV could be due to the amount of course work needed to achieve state certification and the time requirement to complete the coursework. BOC certified ATs are deterred by the low pay. Athletic trainers in WV high schools earn a salary ranging from \$500 to \$8,000 a year.¹⁹ Often times the previously mentioned healthcare workers or school employees that fulfilled the requirements to be state certified ATs under WV P5112, fill these jobs and this salary is secondary to their full-time employment income.

Licensure Efforts in West Virginia

Hiring qualified ATs for WV's high schools has proven to be a daunting task. Absence of state regulation in WV over the practice of athletic training may be a contributing factor. As previously mentioned, WV is one of three states that does not have any regulation of athletic training.^{16,17}

Conversation pertaining to licensure for ATs in WV began in the mid-1980s. In the mid-1990s, the first attempt to introduce licensure to govern the practice of

athletic training in WV was unsuccessful. In 2000, the members of the WVATA agreed the time had come to consult a lobbyist to aggressively pursue licensure. Through the years 2001 -2008, WVLs were lobbied to gain support and bills for licensure were drafted and submitted. Each year bills were introduced, but died in the WV House or Senate.¹⁸ In 2009, Senate Bill 551: *Athletic Trainers Registration Act* was introduced to state legislators to establish a registration process for ATs in WV, but this bill also died.²⁰

According to email correspondence from Daniel Martin, EdD, ATC, (November, 2009) at WV Wesleyan College in Buckhannon, WV, the reasons that the bills repeatedly fail are many. WV is a poor state compared to most other states in the nation. The teachers employed by the WVDE and teach in public schools in WV are among the lowest paid in the country. If WV adopted regulation of athletic training, then a new state practice act would have to be developed and WV P5112 would be obsolete. State regulation in WV would require the WVDE to re-write a state practice act that would require BOC certified ATs to be hired and county school boards would not have the option to employ state certified ATs under WV P5112. Most counties in WV would

have a difficult time financially creating a position for a full-time BOC certified AT.²¹

Dr. Martin also stated that since the WVATA started introducing bills for regulation of athletic training it has always been met with opposition from a variety of other professional associations, organizations, and groups. The APTA has shown the strongest opposition to athletic training regulation in WV and has fought it each year. The American Chiropractic Association has also contested athletic training regulation in WV on a regular basis. Other groups that have at least once opposed legislation to pass regulation of athletic training in WV are: WVDE, Parent Teachers Association (PTA), WV Association of School Administrators, Association of Principals and Association of Athletic Directors.²¹

Other reasons cited by Dr. Martin that WV has not been able to achieve regulation is that the WVATA membership and funding is lacking; parent groups, principals and athletic directors are not on board; the lack of appropriate public education about the benefits of ATs; coaches that do not see the purpose; WVLs that played sports, but do not see the cost benefits.²¹

Most of these groups cite financial reasons for not supporting regulation of athletic training. However,

groups are also trying to protect professional territory. Dr. Martin surprisingly reveals that one PT school in WV includes several class sessions where the PT students are taught that ATs, chiropractors and OTs are poorly educated and PTs are better. The PT students in this class are then required to complete a research assignment to justify that PTs are better.²¹

At the national level, 2009 brought the NATA and APTA settling a fair practice lawsuit filed by the NATA in 2008. The NATA argued the APTA frequently and inaccurately used terms such as "non-qualified," "unqualified," "not qualified," describing ATs in letters advocating against federal and state legislative and regulatory efforts introduced by the NATA. Both NATA and APTA agreed it is a priority to protect the public from harm and to compete ethically and honestly in the health care marketplace.²¹

Despite the opposition, licensure for ATs in WV is the ultimate goal of the WVATA and NATA. However, registration is a realistic first step as proposed in 2009 and reintroduced in 2010. By NATA standards, registration is less desirable than licensure, but would be a great improvement in ensuring quality healthcare for student athletes in WV public schools and open new opportunities

for athletic training to expand into other settings within the state.

Perception of the BOC Certified Athletic Trainer

Athletic trainers have gone to great lengths to improve their professional image as reputable allied health care providers for athletes and the physically active. Despite the public relations efforts by the NATA, it is still a mystery to a majority of the public what exactly it is that an AT does professionally. The certified athletic training credential (ATC) is not recognized like other closely related allied health professions that indicate title, license and/or certification. Athletic trainers are often left to answer the question, "What is it you do?" There exists an obvious lack of understanding by the public about an AT's scope of practice despite the benefits of a rigorous academic curriculum, national board certification, in most states licensure, and stringent continuing education requirements.

Secondary School Administrators and Legislators

Superintendents, principals, and athletic directors make up the secondary school administrators (SSA) and these

individuals are responsible for the hiring of ATs within secondary schools. Therefore, it is vital that SSA's have accurate knowledge and positive perceptions because of their potential to impact the growth of athletic training in the secondary school setting. Similarly, poor perceptions combined with a lack of understanding of the athletic training profession could lead to a lack of professional development in the secondary school setting.

In 1987, Ray surveyed the superintendents in Michigan about athletic injuries, ATs, and legal liability. This is believed to be the first research conducted investigating any SSA's knowledge or perception of the athletic training profession. The author found that 76% of superintendents acknowledged ATs to be the people most qualified to prevent and treat athletic injuries.²² The survey revealed that 65% of superintendents are very concerned about legal liability in their schools.²² However, when asked if a certified AT was currently employed, 85% of the superintendents answered, "no".²² Ray concluded that superintendents have a relatively realistic view of the job functions of a certified AT, show concern for legal liability at schools, but have an extremely inaccurate perception of the importance of certification for ATs.²²

A year later building from Ray's previous work, Pinciario investigated Pennsylvania (PA) secondary school athletic directors (AD) for their knowledge and attitudes of the athletic training profession. Pinciario discovered ADs in PA high schools had a practical perception of the job functions of ATs and were very concerned about legal liability issues.²³ The researcher's survey disclosed that 19.5% of PA school districts employ an AT.²³ The research completed by Pinciario shows PA secondary school ADs have similar knowledge and attitudes to those of Michigan school superintendents. Both professions are aware of the benefits and skills that an AT provides, but overwhelmingly the majority of schools do not employ one.²³

In 2003, Gould and Deivert studied SSA's that included: superintendents, principals, and ADs in NATA District Four (Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin) regarding their knowledge and perceptions of the athletic training profession.²⁴ The questionnaire answers for superintendents, principals, and ADs combined show that 63% believe a "bachelor's degree" is the required education level to practice as a certified AT and 59% feel a salary range of \$25,000 - \$34,999 is required to employ a certified AT.²⁴ Overwhelmingly, 93% of SSA's within District Four view an "athletic trainer" as

the most qualified person compared to a coach, physical education teacher, school nurse, or other professional with 75% stating "athletic trainer" is the best title describing the profession.²⁴ In terms of legal liability, 72% responded they are "very concerned" regarding the potential for litigation at their school, but 48% predict that hiring a certified AT would only "moderately reduce" liability.²⁴ When asked if their school should hire a certified AT to reduce legal liability, 45% answered "no".²⁴ 55% reported employing a certified AT either full or part-time.²⁴ Individually in this study, ADs were the most familiar with the functions of an AT.

The authors concluded that the salary offered by SSA's in District Four is too low and is a factor in the low employment rate of certified ATs at these schools within the district.²⁴ It is also the opinions of the researchers that SSA's have accurate knowledge of the athletic training profession, but have an inaccurate perception of the worthiness certified ATs can provide.²⁴

Felling, Kahanov, Lilienthal, and Schlicher examined the knowledge possessed by California high school principals and ADs regarding the professional role and duties of the AT. Over half (57%) employed an AT and a majority of the respondents were familiar with the athletic

training profession. However, more ADs "strongly" agreed with statements explaining ATs' capabilities and education while principals tended to "moderately" agree or feel neutral about the same statements.²⁵ The authors found that 72% of ADs and 54% of principals from high schools that employ an AT strongly agreed with statements describing injury rehabilitation, while 54% of ADs and 37% of principals agreed with statements concerning organization and administration of athletic care.²⁵ A majority of individuals in these two SSA groups strongly agree that athletic training is a misunderstood profession.²⁵

These authors agree with previous research that implies that even though California's SSA's have a favorable opinion of ATs' professional roles and responsibilities, the profession is still misunderstood by those in positions to hire certified athletic trainers.²⁵ Due to the findings of this study, the authors suggest including the AD in the hiring process because principals' perceptions of the athletic training profession are not accurate.²⁵

The perception of Utah SSA regarding the need for, and the willingness to hire ATs was studied by Knerr, Kaiser, Myrer, and Fellingham. This research included all superintendents, principals, and ADs in the state. The

majority of ADs, 90%, see the most need for ATs in schools while superintendents, 37%, see the least need.²⁶ Budget limitations were listed as the single most important factor for not hiring an AT.²⁶ The administrators stated that possessing a secondary or vocational teaching certificate would most enhance the employment potential for an AT.²⁶ The authors suggest educating superintendents about athletic training since they do the hiring and due to their inaccurate knowledge of the professional role of ATs.²⁶

The researcher was unable to find any previous studies that researched or surveyed WVLs or legislators in any state about their perception of athletic training.

Orthopedic Surgeons

Athletic trainers collaborate with and work under the direction of physicians to optimize activity and participation of patients. Storch, Stevens, and Allen completed a study to investigate the perceptions of orthopedic surgeons in the Mid-Atlantic United States regarding different health care providers and their qualifications as physician extenders. The study also examined the factors that may affect orthopedic surgeons' perceptions of ATs as physician extenders. The authors evaluated answers to 101 returned surveys that included

three different professions: nurse practitioners (NP-C), physician assistants (PA-C), and ATs. The orthopedic surgeons surveyed had the least accurate perception of NP-C with a score of 72.0, a more accurate perception of ATs that scored 78.6, and the most accurate perception of PA-C with a score of 87.5.²⁷ Orthopedic surgeons that served as a team physician had a more accurate perception of ATs with a mean score of 80.9 compared to those who have not been a team physician had a mean score of 65.8.²⁷ Given the opportunity, the researchers found that 44% of the orthopedic surgeons surveyed would hire an AT as a physician extender.²⁷ PA-Cs were ranked by 82% of the surgeons as the most qualified physician extenders.²⁸

A factor that affects an orthopedic surgeon's decision to hire an AT is reimbursement for the services.²⁷ Many physicians are still under the impression that services performed by ATs could not be reimbursed. Some major insurance companies are now reimbursing ATs with the establishment of regulatory codes for athletic training.²⁷ The researchers concluded that as more physicians are educated about AT reimbursement options, it is possible that they may be more willing to hire ATs as physician extenders.²⁷

In a similar study, Bumgardner, Smith-Goodwin, and Walker investigated 16 southwestern Ohio orthopedic surgeons' attitudes of rehabilitation skills of ATs. Fourteen of the orthopedic surgeons had experience working with ATs and the other two did not. The descriptive survey was formatted from Domain four of the 2003 RDS that includes: treatment, rehabilitation, and reconditioning. The survey data revealed that orthopedic surgeons that had prior experience with an AT had a more positive attitude of their rehabilitative skills. Fourteen (88%) of the orthopedic surgeons had very favorable attitudes toward ATs, strongly agreeing that ATs are skilled in the following areas: therapeutic modalities, educating athletes about treatment, and providing guidance or counseling for athletes about treatment, rehab, and reconditioning.²⁸ Two (14%) orthopedic surgeons disagreed that ATs were capable of reassessing injuries, could formulate a rehabilitation protocol or effectively educate athletes about rehabilitation.²⁸ Similarly to Storch, Stevens, and Allen's findings, the authors concluded that the more experience orthopedic surgeons had with an AT the more positive attitude toward their rehabilitation skills.²⁸

Emergency Medical Service (EMT) Directors

ATs must be confident in their ability to manage sport-related emergencies. Biddington, Popovich, Kupczyk, and Roh surveyed 64 emergency medical services (EMS) directors to find out their perception of how ATs manage emergencies. Sixty percent of EMS directors who had preseason meetings with the AT had a significantly better perception of the ATs ability to handle emergencies than did the 40% of EMS directors who did not.²⁹ The EMS directors scored 4.0 or higher on 13 of 15 items on a 5 point Likert scale.²⁹ The researchers concluded that EMS directors believe ATs can manage most emergencies that can arise during sporting activities, but a pre-season meeting significantly improves the perceptions EMS directors have toward ATs.²⁹

Coaches

Mensch, Crews, and Mitchell explored the perspectives of coaches toward the AT's role in the high school setting. The authors conducted a 12 question interview with 20 Indiana and Alabama high school basketball coaches. The questions uncovered the following 3 things: the coaches' limited knowledge of the ATs background and qualifications; the coaches' expectations regarding ATs availability and

accessibility; and identifies communication as a significant aspect of the coach-AT relationship.³⁰

Half the coaches' perceptions of his or her ATs background and direct supervisor were inconsistent with the factual information collected from the ATs. Ten of the 20 coaches were not able to correctly identify the ATs direct supervisor.³⁰ Eight of these ten coaches stated they had "no idea" who their AT's direct supervisor is and two coaches reported that they were the ATs direct supervisor.³⁰ The other ten coaches correctly identified their ATs direct supervisor.³⁰ Eleven of the 20 coaches did not know the ATC credential or if their AT was BOC certified.³⁰ Seventeen of the 20 coaches were unaware of their ATs athletic training professional experience or background.³⁰

During the off-season, coaches' expectations almost unanimously were that the AT should simply be available to give advice and to "compliment" what the coaches do.³⁰

Most coaches' expectations for the pre-season were similar to those during the off-season. The coaches indicated a general sense of wanting availability of the AT.³¹ The basketball coaches understood that many ATs still may be working with fall sports and understood that the AT cannot be in two places at once.³⁰

Coaches were better able to communicate specific duties for their AT during the season. Specific pre-game duties that were identified by coaches were centered on three areas: being available to tape, stretch, and take care of any injuries prior to games.³⁰ During games, coaches wanted their ATs to sit on the bench and take care of anything that might happen during the game. However, the authors feel after reviewing the interview data that overwhelmingly the coaches only need their AT to be "available."³⁰

Eleven coaches mentioned specific duties they wished their AT would perform and the other nine coaches stated there were no other duties they wished their AT would perform beyond the services already provided.³⁰ Examples of duties some coaches would like from their AT are implementing a weight-room conditioning program, nutrition program, and consistent stretching routine; establishing a coach's clinic; and traveling to away games.³⁰ Only one coach out of the 11 coaches that wished for more from their AT mentioned doing anything about getting it.³⁰ One coach responded he believed his AT was too "conservative and this was bothersome", but mentioned the AT had not been told these feelings.³⁰

All coaches interviewed were more than "satisfied" with their AT with respect to their basketball programs and 13 coaches stated they were "very satisfied."³⁰ All 20 coaches said it was important to have a good professional relationship with their AT.³⁰

The researchers concluded that although all participants valued good communication and that poor communication appeared to limit ATs contributions to player performance beyond simple availability.³¹ The authors added that coaches must be educated by ATs to ensure they are receiving qualified athletic training support.³¹

Athletes

The AT is often the first member of the health care team with whom the athlete interacts. Unruh, Unruh, Moorman, and Seshadri randomly selected 20 Division I and II athletic training programs in four time zone regions across the United States. The number of athletes that agreed to participate was 325. A 50 question survey was used with a purpose of evaluating athletes' satisfaction with their ATs and athletic training services at their institutions.³¹ The researchers found significant differences in satisfaction scores between athletes in high and low profile sports and between male and female

athletes.³¹ The authors concluded that female athletes and athletes in high profile sports demonstrated greater satisfaction with their ATs, but competition level did not significantly influence satisfaction.³¹

In another study, Robbins and Rosenfeld assessed athletes' perceptions of social support provided by their head coaches, assistant coaches, and ATs during rehabilitation. There were 35 male and female Division I collegiate athletes from various sports that completed a Social Support Survey (SSS). The results indicated a significant difference between the athletes' satisfaction and the impact on the athletes' overall well being during rehabilitation from the head coach, assistant coach, and AT.³² The survey implied that ATs were perceived by these athletes to provide more support than either the head coaches or assistant coaches.³² Injured athletes perceived their ATs' "listening, task appreciation, task challenge, and emotional challenge" support as more influential to their well-being than support from their head or assistant coaches.³² The authors concluded that results of this survey confirm the positive effects of ATs' social support on injured athletes' recovery efforts.³²

A similar study by Bricker-Bone and Fry built on the findings of Robbins and Rosenfeld that investigated whether

athletes' perceptions of social support from their ATs were related to their beliefs about the rehabilitation process. Fifty-seven male and female athletes from a single Division I institution participated in a SSS and Sports Injury Rehabilitation Survey (SIRBS). The survey results revealed significant correlations between the SSS and the SIRBS scales only for athletes who had sustained severe injuries.³³ The researchers concluded that when athletes with severe injuries perceive that their ATs provide strong social support, the athletes are more likely to believe in their rehabilitation programs.³³

General Public

Botto, Fuller, Hurlbert, and Botto examined the public perception regarding roles and responsibilities of an athletic healthcare professional. Data was collected using a 30 question descriptive survey based on the BOC RDS from 608 individuals at state parks located in the northeast United States. Each survey question had the following options: 1 - AT, 2 - athletic therapist, 3 - both AT and athletic therapist, 4 - neither AT or athletic therapist. Data that supported ATs were: develops strength, power and endurance programs, provides emergency care, and develops cardiovascular programs.³⁴ Data that supported athletic

therapists were: evaluates orthopedic injuries, counsels individuals through injury and refers, applies therapeutic modalities, works under the direction of physician, applies joint mobilizations, is recognized as a healthcare professional by AMA, applies therapeutic massage, and fits assisted devices.³⁵ Data supporting both AT and athletic therapist were: applies bracing, taping, strapping, and splinting, obtained a 4-year college degree, flexibility training, teaches ergonomics and sport specific mechanics, and public safety.³⁴ Data supporting neither AT nor athletic therapist were: evaluating dermatological conditions and education about medication.³⁴ The authors concluded that the data demonstrates the public's misperception of the role and responsibilities of an AT among athletic healthcare professionals.³⁴

Summary

Athletic trainers are health care professionals that practice under the direction of a physician to optimize activity and participation of the physically active in the domains of: prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and

professional responsibility.⁹ Over the past century the athletic training profession has evolved into a sophisticated health care profession that is recognized by the AMA. The NATA, BOC, and CAATE have developed into well-organized agencies that manage and advance the profession.

Despite the efforts of the national, regional, and state associations, state regulation of the practice is still a concern in some states. There are three states that do not regulate athletic training with a purpose of protecting both practitioner and patient. West Virginia has attempted to regulate athletic training with its own state policy, but due to lack of funding and support has failed to pass legislation to license ATs as it does other closely related health care professionals.

The research on the perception of the athletic training profession is revealing that a majority of the population does not have an accurate view of what an AT's scope of practice entails. Only those professionals that work or have worked directly with an AT such as physicians or AD's seem to understand an AT's education, professional role, and capabilities. The views of the general public and other health care professionals have a direct impact on

continued growth and expansion beyond the traditional setting for athletic trainers.

There are suggestions to try and improve the perception of the profession. One idea is changing the nomenclature from AT to athletic therapist as the Canadians refer to it. The goal is to clarify the public's understanding that athletic training is a health care profession and distance it from occupations with similar names, but not recognized as health care professionals.

APPENDIX B

The Problem

Statement of the Problem

West Virginia is one of three states that do not have any form of regulation over the practice of athletic training. The WVLS and WVSSs seem to not fully understand the professional role of BOC ATs due to lack of awareness of an ATs professional role, scope of practice, and educational background as defined by the BOC RDS. WVLS and WVSSs are cutting financial corners at the potential safety of student athletes by hiring state employees under WV P5112 that are not trained to handle emergency situations that can arise during the course of a sporting event. Recently, the mismanagement of concussions or spinal cord injuries that are unrecognized by individuals filling the absence of an AT among high school students is of great concern. Many high schools in WV do not even have a WV P5112 state certified AT.

The purpose of this study was to investigate the perception that WVLS' and WVSSs' have pertaining to the athletic training profession. Specifically, this paper attempted to determine if WVLS and WVSSs are aware of the differences between a BOC certified AT and a WV state certified AT hired under WV P5112 to fulfill the state mandate that recommends that each high school sponsoring football have a state certified AT. Additionally, this

study will examine WVLS' and WVSSs' knowledge of ATs' scope of practice, professional role, and employment settings.

Definition of Terms

The following terms have been defined to increase overall understanding of the study:

1. Athletic training - Athletic training is practiced by athletic trainers and collaboration with physicians to optimize activity and participation of patients and clients. Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities.
2. Certified athletic trainer (AT) - are health care professionals that practice athletic training and have national certification through the Board of Certification (BOC).
3. State certified athletic trainer - a person is not certified by the Board of Certification (BOC) to practice athletic training and who has registered his or her certification with the office of the Secretary of State in West Virginia in accordance with WV P5112.
4. National Athletic Trainers' Association (NATA) - is the professional membership association for certified

athletic trainers and others who support the athletic training profession.

5. Board of Certification (BOC) - sets the standards for the practice of athletic training. The BOC is the only accredited certifying body for Athletic Trainers in the US.
6. WV Policy 5112 (WV P5112) - the West Virginia state practice act for athletic training.
7. Commission on Accreditation of Athletic Training Education (CAATE) - is the agency responsible for the accreditation of 350+ professional (entry-level) athletic training educational programs.
8. Licensure - a form of state credentialing, established by statute and intended to protect the public, that regulates the practice of a trade or profession by specifying who may practice and what duties they may perform.³⁵
9. Certification - a form of title protection, established by state law or sponsored by professional associations, designed to ensure that practitioners have essential knowledge and skills sufficient to protect the public.³⁵

10. Registration - a type of state credentialing that requires qualified members of a profession to register with the state in order to practice.³⁵
11. Exemption - a legislative mechanism used to release members of one profession from the liability of violating another profession's practice act.³⁵
12. No regulation - no credentialing by the state.³⁵

Basic Assumptions

The following are basic assumptions associated with this study:

1. All respondents answered the survey honestly on their knowledge and perception of the athletic training profession.
2. The survey questionnaire designed by the researcher was a valid and reliable measure of the factors being assessed.
3. All respondents have unequal knowledge of the athletic training profession.
4. All respondents were given adequate time to complete the questionnaire.
5. All respondents are elected legislators of the West Virginia house/senate or superintendents overseeing the secondary schools in their county.

Limitations of the Study

The study was limited by the following factors:

1. Data was limited to those WVLs and WVSs that chose to respond.
2. Only questioning legislators and superintendents from West Virginia and not other states.
3. The survey may have been completed by a staffer or assistant to the WVLs and WVSs.
4. The respondents may have researched answers.
5. WVATA was educating WVLs to pass the Athletic Training Registration Act.

Significance of the Study

This study attempted to reveal WVLs' and WVSs' knowledge of BOC ATs and state certified ATs hired under WV P5112. Very little research has been done disclosing the knowledge and perceptions of WVLs and WVSs regarding the athletic training profession. The significance of the study for ATs in WV was to improve the present position of credentialing in WV and to make it known what those individuals writing laws and hiring ATs in WV actually know about AT's educational requirements, scope of practice, professional role, and employment settings.

In addition, the study attempted to build a foundation for further investigation of lawmakers' and SSAs' opinions of the profession. It is important that these individuals base their decisions on current facts and realize the potential ATs possess as health care professionals for WV student athletes.

APPENDIX C

Additional Methods

APPENDIX C1

WVDE Policy 5112

TITLE 126**PROCEDURAL RULE****BOARD OF EDUCATION****SERIES 118****Athletic Trainers in the Public Schools of West Virginia
(5112)****126-118-1. General.**

1.1. Scope. - The purpose of this athletic trainer policy is to improve the health care of student athletes in the public schools of West Virginia. This legislative rule describes the role of athletic trainers and individuals with limited football trainer authorization in the public schools of West Virginia and provides for their licensure and professional development.

1.2. Authority. - W.Va. Constitution, Article XII, §2~~7~~ and W.Va. Code §18-2-5.

1.3. Filing Date. - April 19, 2004.

1.4. Effective Date. - May 20, 2004.

1.5. Repeal of Former Rule. - This procedural rule amends W.Va. 126CSR118, "Athletic Trainers in the Public Schools of West Virginia," filed February 24, 1995 and effective March 27, 1995.

126-118-2. General Rules.

2.1. Each county board of education shall employ an athletic trainer(s) or an individual(s) with limited football trainer authorization defined under section 3.4. to serve during senior high school football practices and games. High schools that do not have an athletic trainer or an individual with limited athletic trainer authorization may not participate in football practices and games.

2.2. Each county board of education is encouraged to employ an athletic trainer for middle and junior high school football practices and games.

2.3. County superintendents are encouraged to assign an athletic trainer to work with other school athletic programs.

2.4. Athletic Trainers employed to serve in any public school capacity must adhere to the certification requirements set forth in this policy and Policy 5202, Minimum Requirements for the Licensure of Professional/Paraprofessional Personnel and Advanced Salary Classifications (126CSR136).

126-118-3. Licensure Governing Athletic Trainers (Policy 5202).

3.1. Athletic Trainer. The Professional Service Certificate endorsed for athletic trainer stands alone, shall not require other certificates as a prerequisite, and must be renewed in accordance with renewal requirements for professional certificates approved by the West Virginia Department of Education (WVDE). Only an individual who holds a bachelor's degree from an accredited institution of higher education and has completed a state approved athletic trainer program, (including the content test) through an accredited institution of higher education shall be eligible for the Professional Service Certificate endorsed for athletic trainer.

3.2. Authorized Athletic Trainer. An Authorization endorsed for athletic trainer may be issued to an individual who holds certification through the National Athletic Trainers Association Board of Certification (NATABOC). The Authorization may be reissued annually upon application to the WVDE Office of Professional Preparation with documentation of valid NATABOC certification and the recommendation of the superintendent of the employing county.

3.3. Permit Athletic Trainer. A Permit for Full-Time Employment endorsed for athletic trainer may be granted by the WVDE to an individual who holds a minimum of a bachelor's degree and has completed six (6) semester hours of credit applicable to an approved athletic trainer program. (See Policy 5202, Minimum Requirements for the Licensure of Professional/Paraprofessional Personnel and Advanced Salary Classifications (126CSR136) for information regarding issuance and renewal of permits.) Individuals with an Athletic Trainer permit must attend an athletic trainer workshop/clinic sanctioned by the West Virginia

Secondary Schools Activities Commission (WVSSAC) on an annual basis.

3.4. Limited Football Trainer Authorization. If an athletic trainer can not be obtained, county boards of education shall employ a licensed health care provider which may include one of the following: physician, registered nurse, licensed practical nurse, chiropractor, physical therapist, occupational therapist, physicians assistant, paramedic, emergency medical technician. To qualify for limited football trainer authorization, county boards of education must:

3.4.1. post the position of athletic trainer or individual to receive limited football trainer authorization with a closing date on or before May 1.

3.4.2. employ an athletic trainer. If an athletic trainer cannot be employed, county boards of education shall select a licensed health care provider to apply for limited football trainer authorization.

3.4.3. require the individual(s) seeking limited football trainer authorization to attend an athletic trainer workshop/clinic sanctioned by the WVSSAC.

3.4.4. require the individual(s) seeking limited football trainer authorization to complete and submit the Application for Limited Football Trainer Authorization to the WVDE Office of Professional Preparation by July 1.

§126-118- 4. Continuing Education Requirements.

4.1. The renewal, conversion, and permanent status of the Professional Service Certificate will be in keeping with continuing education guidelines approved by the West Virginia Board of Education in conformity with the School Laws of West Virginia related to the Professional Certificate.

§126-118- 5. Professional Development.

5.1 . Programs for the professional development of athletic trainers shall comply with the program standards for athletic trainers approved by the West Virginia Board of Education. The issuance and renewal of certificates and the review, approval, and monitoring of professional development programs for athletic trainers shall be under the jurisdiction of the West Virginia Board of Education through the West Virginia Department of Education.

5.2. Any individual employed as an athletic trainer by a county board of education on the basis of a professional certificate, authorization or permit shall participate in county and state approved continuing education programs based on a Systematic Program of Continuing Education for Public School Personnel in West Virginia. In the development of county continuing education programs for athletic trainers, consideration shall be given to statewide needs assessment data related to the roles and responsibilities of athletic trainers.

§126-118-6. General Role Description.

6.1. Role of the Athletic Trainer and Authorized Athletic Trainer. The athletic trainer possesses the essential knowledge, skills, attitudes, and credentials necessary to carry out the practices of prevention, evaluation, initial care, and physical rehabilitation of injuries sustained by students engaged in public school athletics. The athletic trainer has responsibility for the development, implementation, and management of the athletic training program.

6.2. Role of the Permit Athletic Trainer and Limited Football Trainer Authorization. The duties of individuals with limited football trainer authorization are limited to evaluation, initial care, and referral of injuries sustained by students engaged in public school athletics.

§126-118-7. Governing Principles.

7.1. An individual serving as an athletic trainer or individuals with limited football trainer authorization may not have simultaneous coaching responsibilities in the same sport.

7.2. An athletic trainer or an individual with limited football trainer authorization must be in attendance at all senior high school football practices and games.

7.2.1. County superintendents may grant excuses from this requirement for individual practices or games based on illness, accident or unforeseen events.

7.2.2. When an athletic trainer or an individual with limited football trainer authorization is not in attendance because of an illness, accident or other unforeseen event, the county superintendent must secure the attendance of other persons with specialized health related training.

7.3. It is the responsibility of the athletic trainer or individual with limited football trainer authorization to determine whether or not an injured student athlete participates in a game or practice.

§126-118-8. Severability.

8.1. If any provision of this rule or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this rule.

APPENDIX C2

Athletic Training Survey (ATS)

ATHLETIC TRAINING SURVEY

PART 1: DIRECTIONS: Please complete the demographic questions 1 through 10 by placing an (X) in the appropriate space that best answers the question.

1. Gender: Female Male
2. Age: _____
3. Which best describes your current position? County Superintendent Senator Delegate Staffer
4. How many years have you been at your current position? _____
5. When in high school or college, did you participate in athletics? Yes No
6. Did you sustain an injury while playing athletics? Yes No
7. Do you have children of high school age or older? Yes No
8. Do/did your children play high school athletics? Yes No
9. Has your child sustained an injury participating in athletics? Yes No
10. Did you/your child utilize the services of an athletic trainer? Yes No

PART 2 DIRECTIONS: Please circle the number that corresponds with your perception of how strongly you disagree or agree with the following questions regarding an athletic trainer’s scope of practice and professional role.

1 – Strongly disagree 2 – Somewhat disagree 3 – No opinion 4 – Somewhat agree 5 – Strongly agree

Athletic trainers are qualified and have the ability to:

- | | | | | | |
|---|---|---|---|---|---|
| 11. Educate patients about risks involved with participation in athletics | 1 | 2 | 3 | 4 | 5 |
| 12. Recognize disqualifying medical conditions on a medical history form | 1 | 2 | 3 | 4 | 5 |
| 13. Refer a patient to an appropriate medical specialist | 1 | 2 | 3 | 4 | 5 |
| 14. Make custom protective devices like a finger splint | 1 | 2 | 3 | 4 | 5 |
| 15. Identify safety hazards on a playing field like a divot or hole | 1 | 2 | 3 | 4 | 5 |
| 16. Recognize the signs/symptoms of heat illness such as heat exhaustion | 1 | 2 | 3 | 4 | 5 |
| 17. Instruct in the use of cardio-conditioning equipment like a treadmill | 1 | 2 | 3 | 4 | 5 |
| 18. Recognize signs/symptoms of eating disorders | 1 | 2 | 3 | 4 | 5 |
| 19. Tape an ankle | 1 | 2 | 3 | 4 | 5 |
| 20. Take a medical history on a patient | 1 | 2 | 3 | 4 | 5 |

Please continue to page 2

PART 2 Continued: DIRECTIONS: Please circle the number that corresponds with your perception of how strongly you disagree or agree with the following questions regarding an athletic trainer's scope of practice and professional role.

1 – Strongly disagree 2 – Somewhat disagree 3 – No opinion 4 – Somewhat agree 5 – Strongly agree

Athletic trainers are qualified and have the ability to:

21. Diagnose a sprained ankle	1	2	3	4	5
22. Recognize the signs/symptoms of a concussion	1	2	3	4	5
23. Make return to play decisions	1	2	3	4	5
24. Perform joint tests to identify ligament laxity	1	2	3	4	5
25. Perform CPR	1	2	3	4	5
26. Use an automated external defibrillator (AED)	1	2	3	4	5
27. Apply a splint to a fractured limb	1	2	3	4	5
28. Immobilize suspected spinal cord injuries	1	2	3	4	5
29. Apply an ice bag to reduce swelling	1	2	3	4	5
30. Apply a heat pack to sore muscles	1	2	3	4	5
31. Use electrical stimulation to reduce pain in an ankle joint	1	2	3	4	5
32. Use thermal ultrasound on sore muscles	1	2	3	4	5
33. Perform a therapeutic massage	1	2	3	4	5
34. Administer therapeutic exercise	1	2	3	4	5
35. Apply knee braces	1	2	3	4	5
36. Develop treatment plans for an injured patient	1	2	3	4	5
37. Rehabilitate injuries	1	2	3	4	5
38. Develop an emergency action plan	1	2	3	4	5
39. Establish policies and procedures for the delivery of healthcare	1	2	3	4	5
40. Manage a healthcare facility	1	2	3	4	5
41. Be fluent in medical terminology	1	2	3	4	5
42. Adhere to medical records confidentiality standards	1	2	3	4	5
43. Demonstrate appropriate professional conduct	1	2	3	4	5
44. Get reimbursed by insurance companies for services	1	2	3	4	5
45. Reduce workers compensations claims in an industry setting	1	2	3	4	5

This concludes the survey. Please place it in the included pre-addressed, postage paid envelope and place it any United States Postal Service mailbox or outgoing mail. Thank you for taking time to complete the survey.

APPENDIX C3

ATS Cover Letter

February 16, 2010

Dear (Senator, Delegate, or Superintendent):

My name is Jeremy Shepherd and I am currently a graduate student at California University of Pennsylvania pursuing a master's degree in Athletic Training. Part of the graduate study curriculum is to fulfill the thesis requirement through conducting research. I am conducting survey research to collect opinions regarding the Athletic Training profession. In particular, the survey will focus on the scope of practice and professional role of the Athletic Trainer. It is my goal to use this information to contribute to the continued professional advancement of Athletic Training both nationally and in West Virginia.

As a native of West Virginia, I have chosen to poll all state senators, delegates, and county school superintendents as my subjects because I care about the safety and well-being of student-athletes in our state. For this reason, you have been selected to participate in my study. However, you do have the right to choose not to participate or discontinue participation at any time without penalty and all data will be discarded. The California University of Pennsylvania Institutional Review Board has reviewed and approved my survey and is effective 02/02/2010 and expires 02/02/2011. I have included a pre-addressed, postage paid envelope to return the survey to me at California University of Pennsylvania by **March 19th**.

All surveys are anonymous and will be kept completely confidential at all times. The survey results will be housed in my program director's locked filing cabinet in Hamer Hall 103 at California University of Pennsylvania. Your informed consent will be assumed upon return of the survey. The risk for participating in this study is minimal. I ask that you please take the survey at your earliest convenience as it will take approximately 15 minutes to complete. If your schedule doesn't allow you time to complete the survey, please forward it to your staffer. If you have any questions, please feel free to contact me at she6039@calu.edu or 703-994-8433. My thesis advisor's name is Dr. Linda Meyer, EdD, ATC and she may be contacted via email at meyer@calu.edu.

Thank you in advance for taking the time to take part in my thesis research. It is my hope that this study will add to the body of knowledge for the profession of Athletic Training especially in our great state of West Virginia. I greatly appreciate your time to complete the survey.

Sincerely,

Jeremy Shepherd, ATC
Graduate Athletic Training Student

APPENDIX C4

Institutional Review Board



California University
of Pennsylvania

Proposal Number

PROTOCOL for Research Involving
Human Subjects

Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects

(Reference IRB Policies and Procedures for clarification)

Project Title West Virginia Legislators and Superintendents Perception of the Athletic Training Profession

Researcher/Project Director Jeremy Shepherd

Phone # 703-994-8433

E-mail Address she6039@calu.edu

Faculty Sponsor (if required) Dr. Linda Meyer

Department Health Science

Project Dates January 2010 to December 2010

Sponsoring Agent (if applicable) _____

Project to be Conducted at California University of Pennsylvania

Project Purpose: *Thesis* *Research* *Class Project* *Other*

Keep a copy of this form for your records.

Please attach a typed, detailed summary of your project AND complete items 2 through 6.

1. *Provide an overview of your project-proposal describing what you plan to do and how you will go about doing it. Include any hypothesis(es) or research questions that might be involved and explain how the information you gather will be analyzed. For a complete list of what should be included in your summary, please refer to Appendix B of the IRB Policies and Procedures Manual.*

The purpose of this study is to examine the perceptions of West Virginia state legislators and county school superintendents regarding the athletic training profession. The goal is to provide the West Virginia Athletic Trainers' Association (WVATA) and National Athletic Trainers' Association (NATA) with information that can be used to assist them in pursuing state regulation of athletic training in West Virginia.

A descriptive research design will be used in conjunction with a survey to conduct this study. To establish reliability the researcher will conduct a pilot study that will be distributed to a total of 15 Pennsylvania state legislators and 15 Pennsylvania school district superintendents. This is not a true experimental design as no variables are being manipulated. The survey was designed by the researcher and will be distributed to West Virginia state legislators and West Virginia county school superintendents. The legislators and superintendents will be asked questions related to the athletic training profession to gain insight about both groups' perception and knowledge of athletic training. The questionnaire will end by asking the legislator and superintendent demographic questions. The researcher will mail the survey via United States Postal Service to all 134 West Virginia state legislators and to all 55 West Virginia county school superintendents. Included with the survey will be a cover letter that will introduce the researcher, explain the study, and discuss the significance behind the study. Implied consent by the legislators and superintendents will be implied through their anonymous return of the survey and this will be stated in the cover letter. The legislators and superintendents will return the survey answer sheet in a postage paid, pre-addressed envelope via the United States Postal Service to the researcher at California University of Pennsylvania. Survey answer sheets that are returned will be coded using identification numbers by the researcher so confidentiality is maintained.

A T-test will be used to compare the answers given by the legislators to those of the superintendents. After the data is gathered the researcher will analyze it using SPSS version 17.0.

The following are the hypotheses that will be examined by this study:

1. West Virginia legislators' perception of the athletic training profession is not accurate relative to the certified athletic trainer's scope of practice as defined by the six domains in the Role Delineation.
2. West Virginia county school superintendents will have a more accurate perception of the scope of practice of a certified athletic trainer as defined by the six domains in the Role Delineation.

2. *Section 46.11 of the Federal Regulations state that research proposals involving human subjects must satisfy certain requirements before the IRB can grant approval. You should describe in detail how the following requirements will be satisfied. Be sure to address each area separately.*

- a. *How will you insure that any risks to subjects are minimized? If there are potential risks, describe what will be done to minimize these risks. If there are risks, describe why the risks to participants are reasonable in relation to the anticipated benefits.*

There are no risks involved to subjects participating in a survey. All subject's answers will be kept confidential. No research is going to be carried out before the research gains approval from the IRB.

- b. *How will you insure that the selection of subjects is equitable? Take into account your purpose(s). Be sure you address research problems involving vulnerable populations such as children, prisoners, pregnant women, mentally disabled persons, and economically or educationally disadvantaged persons. If this is an in-class project describe how you will minimize the possibility that students will feel coerced.*

The selection of subjects will be all 134 West Virginia legislators and all 55 county school superintendents.

- c. *How will you obtain informed consent from each participant or the subject's legally authorized representative and ensure that all consent forms are appropriately documented? Be sure to attach a copy of your consent form to the project summary.*

The cover letter that will be attached to the survey will state that subjects have the right to choose not to participate in the study. Therefore, informed consent is implied upon completing and returning the survey to the researcher.

- d. *Show that the research plan makes provisions to monitor the data collected to insure the safety of all subjects. This includes the privacy of subjects' responses and provisions for maintaining the security and confidentiality of the data.*

The information of the participants will be kept confidential as neither their name or contact information will be attached to their answers. The only individuals that will have access to the data will be the researcher and the researcher's advisor.

3. *Check the appropriate box(es) that describe the subjects you plan to use.*

<input checked="" type="checkbox"/> <i>Adult volunteers</i>	<input type="checkbox"/> <i>Mentally Disabled People</i>
<input type="checkbox"/> <i>CAL University Students</i>	<input type="checkbox"/> <i>Economically Disadvantaged People</i>
<input type="checkbox"/> <i>Other Students</i>	<input type="checkbox"/> <i>Educationally Disadvantaged People</i>
<input type="checkbox"/> <i>Prisoners</i>	<input type="checkbox"/> <i>Fetuses or fetal material</i>
<input type="checkbox"/> <i>Pregnant Women</i>	<input type="checkbox"/> <i>Children Under 18</i>
<input type="checkbox"/> <i>Physically Handicapped People</i>	<input type="checkbox"/> <i>Neonates</i>

4. *Is remuneration involved in your project? Yes or No. If yes, Explain here.*

5. Is this project part of a grant? Yes or No If yes, provide the following information:
Title of the Grant Proposal _____
Name of the Funding Agency _____
Dates of the Project Period _____
6. Does your project involve the debriefing of those who participated? Yes or No
If Yes, explain the debriefing process here.
7. If your project involves a questionnaire interview, ensure that it meets the requirements of Appendix in the Policies and Procedures Manual.

Project Director's Certification
Program Involving HUMAN SUBJECTS

The proposed investigation involves the use of human subjects and I am submitting the complete application form and project description to the Institutional Review Board for Research Involving Human Subjects.

I understand that Institutional Review Board (IRB) approval is required before beginning any research and/or data collection involving human subjects. If the Board grants approval of this application, I agree to:

1. Abide by any conditions or changes in the project required by the Board.
2. Report to the Board any change in the research plan that affects the method of using human subjects before such change is instituted.
3. Report to the Board any problems that arise in connection with the use of human subjects.
4. Seek advice of the Board whenever I believe such advice is necessary or would be helpful.
5. Secure the informed, written consent of all human subjects participating in the project.
6. Cooperate with the Board in its effort to provide a continuing review after investigations have been initiated.

I have reviewed the Federal and State regulations concerning the use of human subjects in research and training programs and the guidelines. I agree to abide by the regulations and guidelines aforementioned and will adhere to policies and procedures described in my application. I understand that changes to the research must be approved by the IRB before they are implemented.

Professional Research

 Project Director's Signature

 Department Chairperson's Signature

Student or Class Research

 Student Researcher's Signature

 Supervising Faculty Member's Signature if
 required

 Department Chairperson's Signature

ACTION OF REVIEW BOARD (IRB use only)

The Institutional Review Board for Research Involving Human Subjects has reviewed this application to ascertain whether or not the proposed project:

1. provides adequate safeguards of the rights and welfare of human subjects involved in the investigations;
2. uses appropriate methods to obtain informed, written consent;
3. indicates that the potential benefits of the investigation substantially outweigh the risk involved.
4. provides adequate debriefing of human participants.
5. provides adequate follow-up services to participants who may have incurred physical, mental, or emotional harm.

Approved[_____]

Disapproved

Chairperson, Institutional Review Board

Date

February 2, 2010

Institutional Review Board
California University of Pennsylvania
Psychology Department LRC, Room 310
250 University Avenue
California, PA 15419
instreviewboard@cup.edu
instreviewboard@calu.edu
Robert Skwarecki, Ph.D., CCC-SLP, Chair

Mr. Shepherd,

Please consider this email as official notification that your proposal titled "West Virginia Legislators' an Superintendents' perception of Athletic Training" (Proposal #09-053) has been approved by the California University of Pennsylvania Institutional Review Board with the following stipulation:

The phrase "...choose not to participate" must be followed by " or discontinue participation at any time without penalty and all data will be discarded."

Once you have made this change, you may immediately begin data collection. You do not need to wait for further IRB approval. [At your earliest convenience, you must forward a copy including your changes for the Board's records].

The effective date of the approval is 2-2-2010 and the expiration date is 2-2-2011. These dates must appear on the consent form .

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

- (1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)
- (2) Any events that affect the safety or well-being of subjects
- (3) Any modifications of your study or other responses that are necessitated by any events reported in (2).
- (4) To continue your research beyond the approval expiration date of 2-2-11 you must file additional information to be considered for continuing review. Please contact instreviewboard@cup.edu

Please notify the Board when data collection is complete.

Regards,

Robert Skwarecki, Ph.D., CCC-SLP
Chair, Institutional Review Board

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Jeremy Shepherd** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 06/15/2009

Certification Number: 245194

APPENDIX C5

WV H.B. 3152

Athletic Training Registration Act

H. B. 3152

(By Delegates Caputo, Ashley, White, Kominar and Campbell)

[Introduced January 13, 2010; referred to the Committee on Government Organization then the Judiciary.]

A BILL to amend the Code of West Virginia, 1931, as amended, by adding thereto a new article, designated §5-30-1, §5-30-2, §5-30-3, §5-30-4 and §5-30-5, all relating to establishment of the Athletic Trainers Registration Act; providing for registration of athletic trainers with the Secretary of State; defining athletic training and athletic trainer; establishing the Secretary of State as agent for service of process purposes; authorizing the Secretary of State to issue subpoenas and subpoenas duces tecum; prohibiting the advertisement or representation as an athletic trainer unless registered; providing registration and renewal requirements; providing for denial, revocation, suspension or refusal to renew registration or renewal; and allowing the Secretary of State to establish registration and renewal fees

Be it enacted by the Legislature of West Virginia:

That the Code of West Virginia, 1931, as amended, be amended by adding thereto a new article, designated §5-30-1, §5-30-2, §5-30-3, §5-30-4 and §5-30-5, all to read as follows:

ARTICLE 30. ATHLETIC TRAINERS.

§5-30-1. Short title.

This article may be cited as the Athletic Trainers Registration Act.

§5-30-2. Definitions.

In this article:

(a) "Athletic training" means the practice of prevention, assessment, management rehabilitation, and reconditioning of emergency, acute, and chronic medical conditions involving impairment, functional limitations and disabilities.

(b) "Athletic trainer" means a person who is certified by the National Athletic Trainers' Association Board of Certification to practice athletic training and who has registered his or her certification with the office of the Secretary of State.

§5-30-3. Service of process; subpoenas.

(a) By acting as an athletic trainer in this state, a nonresident individual appoints the Secretary of State as the individual's agent for service of process in any civil action in this state related to the individual's acting as an athletic trainer in this state.

(b) The Secretary of State may issue subpoenas or subpoenas duces tecum for any material that is relevant to the administration of this article.

§5-30-4. Athletic trainers; registration required.

An individual may not advertise or represent himself or herself as an athletic trainer in this state and may not use the initials "AT," or the words "registered athletic trainer," "athletic trainer" or any other words, abbreviations, titles or insignia which indicate, imply or represent that the person is an athletic trainer, unless he or she is certified by the National Athletic Trainers' Association Board of Certification to practice athletic training and has registered his or her certification with the office of the Secretary of State.

§5-30-5. Registration and renewal requirements; denial, revocation and suspension; fees.

(a) An applicant for registration shall submit a current certification from the National Athletic Trainers' Association Board of Certification to practice athletic training in a form prescribed by the Secretary of State. An application filed under this section is a public record. The application must be in the name of an individual and signed by the applicant and state that the applicant has not been:

(1) Guilty of fraud in practice of athletic training, or fraud or deceit in the individual's application for registration;

(2) Engaged in practice under false or assumed name, or impersonating another practitioner of a like or different name;

(3) Addicted to the habitual use of drugs, alcohol or stimulants to an extent as to incapacitate that person's performance of professional duties;

(4) Guilty of fraudulent, false, misleading or deceptive advertising or for prescribing medicines or drugs, or practicing any licensed profession without legal authority;

(5) Grossly negligent in the practice of athletic training;

(6) Practicing athletic training with a license or other authorization to practice from another state or jurisdiction that has been canceled, revoked, suspended or otherwise restricted;

(7) Incapacitated by a physical or mental disability which is determined by a physician to render further practice by the applicant inconsistent with competency and ethic requirements; or

(8) Convicted of sexual abuse or sexual misconduct.

(b) The Secretary of State may deny an application for registration if any of the statements set forth in subdivisions (1) through (8) of subsection (a) of this section are answered in the positive. In making the determination to deny an application for registration, the Secretary of State may consider:

(1) How recently the conduct occurred;

(2) The nature of the conduct and the context in which it occurred; and

(3) Any other relevant conduct of the applicant.

(c) An athletic trainer may apply to renew a registration by submitting an application for renewal in a form prescribed by the Secretary of State. An application for renewal filed under this section is a public record. The application for renewal must be signed by the applicant and must contain current information on all matters required in an original registration.

(d) A registration or a renewal of a registration is valid for two years.

(e) The Secretary of State may suspend, revoke or refuse to renew a registration for conduct that would have justified denial of the original registration under this section, only after proper notice and an opportunity for a hearing in accordance with the provisions of article five, chapter twenty-nine-a of this code.

(f) The Secretary of State may establish registration and renewal fees in an amount sufficient to defray the administrative costs of registration.

NOTE: The purpose of this bill is to establish a registration process for certified athletic trainers.

Strike-throughs indicate language that would be stricken from the present law, and underscoring indicates new language that would be added.

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ABSTRACT

TITLE: West Virginia Legislators' and Superintendents' Perception of Athletic Training

RESEARCHER: Jeremy Shepherd

ADVISOR: Dr. Linda Meyer

DATE: April 2010

RESEARCH TYPE: Masters Thesis

PURPOSE: The purpose of this study was to survey the West Virginia (WV) state legislators (WVL) and WV county school superintendents (WVS) to collect their perceptions and knowledge of a certified athletic trainer's (AT) scope of practice and professional role.

PROBLEM: WV is one of three states that do not have any form of regulation over the practice of athletic training. The WVLs and WVSSs seem to not fully understand the professional role and value of ATs due to a lack of awareness of an AT's professional role and scope of practice as defined by the six Domains in the Board of Certification Role Delineation Study fifth edition.

METHOD: A descriptive type design was used for this study. The Athletic Training Survey was the instrument used. Subjects were 189 WVLs and WVSSs.

FINDINGS: No significant difference was found ($t_{77} = .589, P > .05$). The mean of the WVSs 146.9 ± 14.9 was not significantly different from the mean of the WVLs 143.9 ± 16.1 .

CONCLUSION: WVSs and WVLs possess accurate knowledge of the athletic training profession for Domains I - IV, but have an inaccurate perception for Domains V and VI.