

ATHLETIC TRAINERS' PERCEPTIONS OF THIRD-PARTY REIMBURSEMENT  
IN THE COMMONWEALTH OF PENNSYLVANIA

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

Erin Leaver

Research Advisor, Dr. Jodi Dusi

California, Pennsylvania

2014

CALIFORNIA UNIVERSITY of PENNSYLVANIA  
CALIFORNIA, PA

THESIS APPROVAL

Graduate Athletic Training Education


We hereby approve the Thesis of

Erin Leaver  
Candidate for the degree of Master of Science

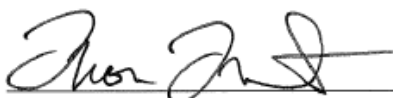
Date

Faculty


5-22-14

  
\_\_\_\_\_  
Jodi Dusi, PhD, MPT

5/22/14

  
\_\_\_\_\_  
Thomas West, PhD, ATC

5/22/14

  
\_\_\_\_\_  
Michael Meyer, PhD, ATC

## ACKNOWLEDGMENTS

I would like to take a moment to thank everyone who helped me along the way with my research, whether through editing, reviewing, or simply motivating me to keep my nose to the grindstone. To all of my fellow graduate assistants, thank you for being a welcome distraction and most of all for being great friends. To my family, thank for listening and nodding your heads when I discussed my work, even if you had only a small clue of what it was I was talking about. To my committee members, Dr. West and Dr. Meyer, thank you for sticking by me even in the throes of zero motivation and procrastination, with the biggest thank you of all going to my advisor Dr. Dusi. You were always interested, engaged, and optimistic, and I thank you for sticking with me even as I took far too long to complete my work. The support all of you have given to me is immeasurable.

## TABLE OF CONTENTS

	Page
SIGNATURE PAGE . . . . .	ii
ACKNOWLEDGEMENTS . . . . .	iii
TABLE OF CONTENTS . . . . .	iv
LIST OF TABLES . . . . .	vi
LIST OF FIGURES . . . . .	vii
INTRODUCTION . . . . .	1
METHODS . . . . .	6
Research Design . . . . .	6
Subjects . . . . .	7
Instruments . . . . .	8
Procedures . . . . .	12
Hypotheses . . . . .	14
Data Analysis . . . . .	14
RESULTS . . . . .	16
Demographic Data . . . . .	16
Hypothesis Testing . . . . .	20
Additional Findings . . . . .	26
DISCUSSION . . . . .	28
Discussion of Results . . . . .	28
Conclusions . . . . .	35
Recommendations . . . . .	36
REFERENCES . . . . .	38
APPENDICES . . . . .	42
APPENDIX A: Review of Literature . . . . .	43

Third-Party Reimbursement in Athletic Training . . . .	45
Third-Party Reimbursement in Physical Therapy . . . .	48
Evidence Based Practice . . . . .	53
Barriers to Implementation . . . . .	57
Summary . . . . .	59
APPENDIX B: The Problem . . . . .	61
Statement of the Problem . . . . .	62
Basic Assumptions and Limitations. . . . .	63
Delimitations of the Study . . . . .	63
Significance of the Study . . . . .	63
APPENDIX C: Additional Methods . . . . .	65
Cover Letter (C1) . . . . .	66
IRB: California University of Pennsylvania (C2) . . . .	70
Athletic Trainers' Perceptions of Third-Party Reimbursement Survey (C3) . . . . .	76
References (C4) . . . . .	86
ABSTRACT. . . . .	92

Table	Title	Page
1	Subjects' Job Setting . . . . .	17
2	Subjects' Years Work Experience . . . . .	18
3	Additional Credentials of Subjects . . . . .	19
4	Barriers to Implementing Third-Party Reimbursement . . . . .	22
5	Perceived Education of Subjects . . . . .	25

## LIST OF FIGURES

Figure	Title	Page
1	Components of the Perception of Third-Party Reimbursement Survey Listed by Study Aim . . .	10

## Introduction

The aims of this study are to: 1. determine the prevalence of third-party reimbursement of certified athletic trainers (ATCs) in the state of Pennsylvania; 2. describe the opinions of ATCs in the state of Pennsylvania regarding the value of third-party reimbursement; 3. describe the opinions of ATCs on perceived knowledge of third-party reimbursement; and 4. identify the barriers preventing ATCs from receiving third-party reimbursement in Pennsylvania. Gaining a further understanding of what athletic trainers have experienced and understand about third-party reimbursement will help to direct the profession and professional athletic training organizations toward appropriate action as well as shed light on how to best implement reimbursement for athletic trainers.

Third-party reimbursement occurs when an outside party, such as an insurance company, pays for services rendered to a patient.<sup>1</sup> This form of payment is commonplace within the medical community, and insurance companies in the United States are thriving businesses. Insurance companies come in many forms as well, with many being



private companies, such as Health Maintenance Organizations (HMOs) or Preferred Provider Organizations (PPOs), in addition to those run by the government, such as Medicaid and Medicare. In order to receive reimbursement from either the private or public insurance companies, it is essential for practitioners to have National Provider Identifier (NPI) numbers, because having such will increase the likelihood of receiving payment.<sup>2</sup> In addition to this, being able to show "medical necessity" or having a physician referral will increase the likelihood of third-party reimbursement.<sup>2</sup>

The history of reimbursement in the athletic training profession begins in the 1990's, when the National Athletic Trainers' Association (NATA) began to see the important role reimbursement could play. The NATA created the Reimbursement Advisory Group (RAG) to approach third-party payers, in the pursuit of reimbursement for the profession. The RAG worked to create committees at the state level, and exists today as the NATA Committee on Revenue, working to create healthcare reimbursement models for athletic trainers in many different settings.<sup>3</sup>

In order to get a good grasp on where the athletic training profession stands in regard to reimbursement, literature pertaining to third-party reimbursement in

physical therapy was gathered and reviewed. One article, authored by Dode Jackson, a long time American Physical Therapists Association (APTA) member, discussed the political lobbying and funding that it took to make significant strides in reimbursement.<sup>4</sup> Similar to the issues that athletic trainers have faced, many physical therapists (PTs) have struggled to receive reimbursement without physician referral, leading them to question how they are viewed by third-party payers as diagnosticians.<sup>5-7</sup> Although the two professions show many similarities, and in many ways athletic training is following physical therapy's road to reimbursement, the literature also shows that the relationship between the two has been volatile, especially in regard to reimbursement. In February of 2008 the NATA filed suit against the APTA about coding used by insurers and clinicians. In the suit the NATA claimed that the APTA was "manipulating the Coders' Desk Reference for Procedures to favor PTs and their practice."<sup>8</sup> The suit was settled out of court, but illustrates some of the adversity that the NATA and athletic trainers face in the insurance market.

Another important factor to be considered in this research was the relevance of evidence based practice to third-party reimbursement. The connection between these two factors was evident throughout the literature. Hertel,

professor and certified athletic trainer (ATC) from the University of Virginia, states in his editorial "Research Training for Clinicians: The Crucial Link Between Evidence-Based Practice and Third-Party Reimbursement," stating "Third-party reimbursement is a challenge facing athletic trainers in numerous practice settings. The stark reality is that without documented evidence showing the effectiveness of clinical interventions rendered by ATCs, reimbursement is a pipe dream."<sup>9</sup> In another article, Stevens and Hootman stated that: "As more athletic trainers bill third parties for their services, those third-party payers will require evidence that the interventions are effective. Reimbursement may be difficult or impossible to obtain for those procedures not shown to be effective."<sup>10</sup> The correlation between the two topics, evidence based medicine and third-party reimbursement, is shown to be strong in the literature, and in addition to this, the literature shows that the athletic training profession is lagging behind many others in the medical field when it comes to evidence based practice.<sup>11</sup>

It is also important to understand the barriers that are keeping many athletic trainers from pursuing third-party reimbursement. The literature on this specific topic was found to be scarce, but did discuss some issues. One

study by McPherson approached collegiate athletic trainers. This particular study revealed that some athletic trainers felt that, while beneficial to the profession, third-party reimbursement would not benefit a collegiate athletic trainer. This same study noted some hesitance to charge for a service not previously charged for.<sup>12</sup> Literature also exists which discusses a lack of education preventing athletic trainers from pursuing reimbursement, specifically a lack of education or training at the undergraduate level.<sup>13</sup>

Keeping in mind what the literature presented, the focus of this study took shape. A survey was developed to send to athletic trainers in the state of Pennsylvania, with the goal of determining the prevalence of third-party reimbursement of ATCs in the state of Pennsylvania, the opinions of ATCs in the state of Pennsylvania regarding the value of third-party, their perceived knowledge of third-party reimbursement, and the barriers preventing ATCs from receiving third-party reimbursement in Pennsylvania.

## METHODS

The aims of this study are to: 1. determine the prevalence of third-party reimbursement of certified athletic trainers (ATCs) in the state of Pennsylvania; 2. describe the opinions of ATCs in the state of Pennsylvania regarding the value of third-party reimbursement; 3. describe the opinions of ATCs in Pennsylvania in regard to their perceived knowledge of third-party reimbursement; and 4. identify the barriers preventing ATCs from receiving third-party reimbursement in Pennsylvania. This section will include subsections of: Research Design, Subjects, Instruments, Procedures, Hypothesis, and Data Analysis.

### Research Design

This research project is a descriptive study exploring the prevalence of third-party reimbursement in Pennsylvania and the opinions of certified athletic trainers in the state in regard to the value of, perceived knowledge of, and barriers of implementing third-party reimbursement. As this is an exploratory study, there is no dependant variable in the study. Subjects were asked to complete the instrument, the Perceptions of Third-Party Reimbursement

survey. The seventeen-item questionnaire was developed with the help of a similar survey acquired from the Wisconsin Athletic Trainer's Association and with their permission.

### Subjects

The subjects of the study are certified athletic trainers in the state of Pennsylvania that are members of the National Athletic Trainers' Association (NATA). There are 1,632 ATCs in the state of Pennsylvania that are members of the NATA. The survey was distributed to each subject via the NATA database, taking into account the necessary parameters requested by the researcher. Subjects had to be a certified athletic trainer and a member of the Pennsylvania Athletic Trainers' Society (PATS). The survey was sent to the subjects from the NATA via email and completed online using SurveyMonkey.

## Instruments

The Perception of Third-Party Reimbursement Survey (Appendix C) was created by the researcher to assess the usage of, opinions of, and perceived knowledge of third-party reimbursement of ATCs practicing in PA. Additionally, the survey asks subjects to identify barriers of implementing third-party reimbursement. The survey consists of seventeen questions. There are four demographic questions, including job setting, years as a certified athletic trainer, years of practice in the state of Pennsylvania, and other credentials possessed, which was used by the researcher to classify the subjects, in addition to perception/opinion questions, and knowledge questions. The survey is modeled after the Third-Party Reimbursement and Strategic Planning Survey developed by the Wisconsin Athletic Trainers Association, and also used by Indiana Athletic Trainers Association. However, the researcher modified some specific questions used in the original survey to make them more applicable to the purpose of this particular study. In order to assure content validity, the survey was reviewed and modified by three experts, three professors from California University of Pennsylvania, in the field of athletic training. The survey

consists of open-ended and close-ended questions, in addition to using a 1-5 confidence rating scale to determine each participant's perceived knowledge of particular aspects of third-party reimbursement. To assess the prevalence of third-party reimbursement in Pennsylvania, there are multiple items on the questionnaire, which asked the subject if he/she utilizes third-party reimbursement and in what setting. Subsequent questions address the opinions of ATCs regarding reimbursement and ask subjects to identify barriers preventing ATCs from receiving third-party reimbursement. See Figure 1 for more detail on the components of the study.



**Figure 1.** Components of the Perception of Third-Party Reimbursement Survey listed by study aim

<b>Prevalence of third-party reimbursement</b>	<b>Opinions of ATCs in the state of PA regarding value of third-party reimbursement</b>	<b>Barriers to pursuing third-party reimbursement</b>	<b>Perceived knowledge of third-party reimbursement</b>
Item #1. Do you have an NPI number? Please check "No" if unsure. **	Item #4. Do you currently utilize evidence based medicine in your practice? (Such as implementing research based care in your practice.)	Item #8. What factors do you believe negatively influence athletic trainers seeking third-party reimbursement? Please check all that apply. (List provided)	Item #10. Have you ever attended or participated in workshops or supplemental training pertaining to third-party reimbursement?
Item #2. Does your employer bill for services that you provide (CPT series 97000)? **	Item #5. If you do provide medical and rehabilitative services, but do not currently bill for them, is this something that you are interested in pursuing? **	Item #9. (Likert Scale) I feel that my academic training (didactic or internship) has adequately prepared me to implement third-party reimbursement.	Item #11. (Likert Scale) I feel comfortable with my overall knowledge of third-party reimbursement.

<p>Item #3. Do you bill under the direct supervision of a physical therapist? **</p>	<p>Item #6. Do you support athletic trainers pursuing third-party reimbursement? Please explain. **</p>		<p>Item #12. (Likert Scale) I feel the need to attend future workshops or supplemental training sessions regarding third-party reimbursement.</p>
	<p>Item #7. In what ways do you see third-party reimbursement helping the athletic training profession, if any?</p>		<p>Item #9B. (Likert Scale) I feel that my academic training (didactic or internship) has adequately prepared me to implement third-party reimbursement.</p>

\*\*=Indicates that question had been modified from the Wisconsin Athletic Trainers Association's Third-Party Reimbursement survey.

## Procedures

The researcher obtained Institutional Review Board (IRB) approval at California University of Pennsylvania before beginning any data collection or distribution of surveys. The researcher then completed the Research Survey Request Form on the NATA website to obtain their approval to distribute the survey. After obtaining approval, the researcher requested that the NATA distribute the survey to qualifying NATA members via email. Each subject was asked via an attached cover letter (Appendix C1) to participate in the study by completing the online survey to assess their use of third-party reimbursement as an ATC, his/her opinion regarding the value of third-party reimbursement to his/her personal practice, patient quality of care, and profession of athletic training in addition to his/her perceived knowledge of third-party reimbursement. Subjects also were asked to identify barriers they feel hinder the implementation of third-party reimbursement. Subjects were assured, via the cover letter, that their participation was completely voluntary, that they could remove themselves from participation at any point in the process, and that

consent was implied if they chose to complete the survey. Demographic data were collected in regard to the job setting, with choices including: high school or clinical outreach, college in athletic or academic setting, clinical such as a physician extender, industrial, or others. Other demographic data collected included years of experience as an ATC and years of experience in the state of Pennsylvania. All surveys were completed anonymously and each participant's identity remained confidential.

The email to prospective participants included mention of IRB approval and the cover letter outlining voluntary participation and implied consent. The NATA then emailed the survey a total of two times to every participant over a two week period. Following this two week period the survey link was deactivated and submissions were no longer accepted. The survey data were kept anonymous and confidential. The data from the responses were then collected and entered into an electronic spreadsheet. The data were then analyzed and organized by demographic classification.

## Hypotheses

The following are hypotheses of the researcher based on existing literature and experience in the field of athletic training.

1. Athletic trainers will support and value the implementation of third-party reimbursement in the profession, depending on setting.
2. Athletic trainers will endorse the following barriers to implementation of third-party reimbursement: ethical issues based on history without payment, complication of insurance paperwork, and the time commitment in setting up a reimbursement program.
3. There will be a lack of understanding about third-party reimbursement among athletic trainers.

## Data Analysis

Statistical analysis was completed using a commercially available software package (SPSS version; Chicago, IL) and the data were analyzed using descriptive statistics. Data collection for the demographic questions regarding years experience in athletic training, job setting, as well as other close-ended questions regarding

the use of third-party reimbursement, were evaluated using frequency counts. Qualitative analysis was performed on the data collected from open-ended questions, utilizing the grounded theory approach to look for common themes among the answers. Finally, a Likert scale from 1-5 was used to assess each individual respondent's agreement to statements relating to the respondent's perceived knowledge of third-party reimbursement. For example, the respondent was presented with the statement "Do you feel that you have a good understanding of CPT coding" and asked to rate his/her agreement with the statement on a scale of 1 to 5 with 1 indicating "strongly agree" and 5 indicating "strongly disagree."

## RESULTS

The following section is comprised of the information gathered through data collection and analysis of the Athletic Trainers' Perceptions of Third-Party Reimbursement Survey. This section will include three subsections: demographic data, hypothesis testing, and additional findings.

### Demographic Data

The survey included four questions in regard to demographic data about the subjects. These questions were included to analyze the potential variance in opinion based on things such as job setting, years of experience, and other credentials held. Frequency counts were used to summarize the data for job setting, years as a certified athletic trainer, and years as a licensed athletic trainer in the state of Pennsylvania. The survey was distributed to 1,000 certified athletic trainers in Pennsylvania, with a return of 165, for a return rate of 16.5%.

Table 1, shown below, lists the frequency counts for subject's job setting, listed by both the number of subjects and the percentage of the total who responded to each setting listed.

**Table 1.** Job Setting of Subjects

<b>Setting</b>	<b>Number</b>	<b>Percentage (%)</b>
High School	29	17.6
Clinical Outreach at High School	43	26.1
College, Athletic Only	43	26.1
College, Athletic and Academic	10	6.1
College, Academic only	9	5.5
Clinic	18	10.9
Industrial	1	.6
Other	12	7.3

Table 2, listed below, displays the frequency of subjects by both years as a certified athletic trainer and years licensed to practice in the state of Pennsylvania.



**Table 2.** Years of Experience an ATC

<b>Range in Years</b>	<b>Certified (%)</b>	<b>Licensed PA(%)</b>
<1	1 (.6%)	4 (2.4%)
1-5	39 (23.6%)	50 (30.3%)
6-10	31 (18.8%)	32 (19.4%)
11-15	26 (15.8%)	24 (14.5%)
16-20	17 (10.3%)	14 (8.5%)
21-25	26 (15.8%)	20 (12.1%)
26-30	10 (61.5)	13 (17.9%)
31-35	9 (5.5%)	4 (2.4%)
36-40	4 (2.4%)	3 (1.8%)
40+	2 (1.2%)	1 (.6%)

Frequency counts were also calculated on the data pertaining to additional credentials held by the subjects. The question in the survey listed Physical Therapist (PT), Doctor of Physical Therapy (DPT), Physical Therapist Assistant (PTA), Occupational Therapist (OT), Medical Doctor (MD), Doctor of Osteopathic Medicine (DO), Certified Strength and Conditioning Specialist (CSCS), Performance Enhancement Specialist (PES), Emergency Medical Technician (EMT), Certified Orthopedic Technologist (OTC), and Doctor

of Chiropractic Medicine (DC), as well as an option for "No others" and "other (please specify)". The responses are displayed Table 3 below.

**Table 3.** Additional Credentials of Subjects

<b>Credential</b>	<b>Number</b>
Physical Therapist (PT)	3
Certified Strength and Conditioning Coach (CSCS)	20
Performance Enhancement Specialist (PES)	39
Emergency Medical Technician (EMT)	7
Certified Orthopaedic Technologist (OTC)	4
Doctor of Chiropractic Medicine (DC)	1
Corrective Exercise Specialist (CES)	13
Certified Personal Trainer (CPT)	6
Master of Science (MS)	3
Doctor of Philosophy (PhD)	3
Certified Kinesiotape Practitioner (CKTP)	3
Others (EdD, RMSK, NASE, MHA, ITAT, SFMA, HKC, PMP, RN, FMS, Med, OBT, SNS, ROT, Massage, TPI, PA teaching cert)	19

## Hypothesis Testing

The following hypotheses were investigated in this study:

Hypothesis 1: Athletic trainers will support and value the implementation of third-party reimbursement in the profession, depending on setting.

Results: In response to the question "Do you support athletic trainers pursuing third-party reimbursement for services provided," 93.3% (154/165) of subjects said "Yes", with 11 subjects, or 6.7%, responding "No". Of those 11 subjects who responded "no", there were four in the high school setting, three in the collegiate athletic setting, and four in the clinical setting. This data does not indicate a trend between job setting and the value of third-party reimbursement in the athletic training profession.

The subjects were also asked if they would like to pursue third-party reimbursement in their own practice, to which 54.5% said "Yes" and 6.7% said that they currently billed for services they provide.

Conclusion: There were a large number (93.3%) of athletic trainers who support the pursuit of third-party

reimbursement in athletic training, regardless of job setting.

Hypothesis 2: Athletic trainers will endorse the following barriers to implementation of third-party reimbursement: ethical issues based on history without payment, complication of insurance paperwork, and the time commitment in setting up a reimbursement program.

Results: Each subject was asked to check off all barriers that he or she felt were preventing athletic trainers from pursuing third-party reimbursement, with the following as options: Ethical Issues (regarding charging for services not previously charged for), Time Commitment to Implement, Difficulty of Paperwork and Insurance Related Work, Lack of Education on Third-Party Reimbursement, Disparity in Evidence Based Practice Compared to Other Professions, The Perception of No Benefit to Athletic Trainers, and an option to list other barriers. Subjects were free to check off as many as they felt applied. Table 4 lists the results from this question.

**Table 4.** Barriers to the Implementation of Third-Party Reimbursement

<b>Barrier</b>	<b>Number (#)</b>	<b>Percentage (%)</b>
Ethical Issues	41	24.8%
Time Commitment	75	45.5%
Difficult Paperwork	94	60.0%
Lack of Education	116	70.3%
Lack of EBP	33	20.0%
Perceived No Benefit	64	38.8%

There were multiple themes found among the additional barriers that subjects listed, such as issues with other professions (such as Physical Therapists, Occupational Therapists, or Physical Therapist Assistants), difficulty receiving payment from insurers, and a lack of administrative support. In regard to issues with other professions, one subject said "The PTs (Physical Therapists) don't want ATs (Athletic Trainers) to get third-party reimbursement," while others cited the American Physical Therapists' Association (APTA) as a potential road block. Also found in an open-ended response was this quote in regard to potential difficulty in receiving payment from insurers: "Insurance companies haven't paid for athletic training services in the past, why would they do so in the

future when all they do is cut and deny other established (sic) Health Care providers...(such as) PT, OT, (and) ST." Other subjects commented the following in regard to difficulties with administrative support: "(There would be) staffing limitations to enact the billing process," and "(There would be) a lack of administrative support to conduct billing."

Comments in regard to other professions were made by seven, or 4.2%, of the subjects, while comments in regard to receiving payment from insurers were made by seven, or 4.2%, of subjects, and comments in regard to administrative support were made by five, or 3.0%, of subjects.

Conclusions: Athletic trainers do endorse ethical issues, difficulty of paperwork, and time commitment as barriers to the implementation of third-party reimbursement. However they do not view these as the most influential barriers. Instead, the most common barrier endorsed by nearly 71% of participants was "lack of education".

Hypothesis 3: There will be a lack of understanding about third-party reimbursement among athletic trainers.

Results: As listed in Table 4 above, lack of education returned the most commonly selected response to the question of "What factors do you believe negatively influence athletic trainers seeking third-party

reimbursement?" Subjects were also asked if they had attended any workshops or supplemental training in regard to third-party reimbursement, to which 25.5% of the subjects said "Yes." In addition, there were multiple questions in regard to each subject's comfort with third-party reimbursement. Table 5 details the data pertaining to three Likert scale questions posed to the subjects. These questions asked each subject about their comfort with their overall knowledge of third-party reimbursement, if they felt the need to attend future workshops or training sessions, and if they felt their academic training adequately prepared them to implement third-party reimbursement. These questions were answered on a 1-5 scale, with 1 being "strongly agree", 2 being "agree", 3 being "neutral", 4 being "disagree", and 5 being "strongly disagree."

**Table 5.** Perceived Education of Subjects

<b>Statement</b>	<b>Mean (n=165)</b>	<b>Std Deviation</b>
"I feel comfortable with my overall knowledge of third-party reimbursement."	3.02	1.076
"I feel the need to attend future workshops(...)regarding third-party reimbursement."	2.23	.874
"I feel that my academic training (...)has adequately prepared me to implement third-party reimbursement in my practice."	3.61	1.057

\*\*5=Strongly Disagree, 4=Disagree, 3=Neutral, 2=Agree, 1=Strongly Disagree

Conclusions: Although this survey did not test the knowledge or understanding of athletic trainers in regard to third-party reimbursement, it did ask athletic trainers about their perceived knowledge and comfort with athletic training reimbursement as well as their opinion on the knowledge of reimbursement of other athletic trainers. The survey found a perceived lack of understanding among athletic trainers, as noted in 70.3% of the subjects questioned endorsed lack of education as a barrier to implementing third-party reimbursement. However, subjects were in general relatively "neutral" in their self-perception of knowledge regarding third-party reimbursement.



### Additional Findings

The first study aim was to determine the prevalence of third-party reimbursement in the state of Pennsylvania. Most of the respondents, 71.5%, or 118 of 165, had their National Provider Identifier number (NPI), with 4.2%, or 7 of 165, of the subjects being unsure of whether or not they possessed an NPI.

To further assess prevalence, respondents were asked if they billed for athletic training services. The data showed 7.9%, or 13 of 165, of athletic trainers questioned billed or worked for an employer that billed under the 97000 CPT code series, which is the code series reserved for athletic training services. Additionally, 4.8% of subjects questioned said they or their employer billed under the supervision of a physical therapist.

In addition to assessing participants opinions on the value of third-party reimbursement on an individual level, respondents were also asked an open-ended question of "What ways do you see reimbursement helping the profession?" There were two very common responses to this question including an increased value to employers and an increased value within the medical community, with 21 subjects citing

both in their responses. Things which the researcher considered to fall under "increased value to employers" were: increased salary, increased budgets, better hours, and decreased workload. Things which the researcher considered to fall under "increased value within the medical community" included: more credibility, more respect from PTs and MDs, being recognized as professionals, and awareness for what an athletic trainer is and does. Other responses to this question included: increased job opportunity, increased documentation and outcome based care, and more athletic trainers staying in the profession.

Finally, because of the intimate connection between third-party reimbursement and evidence-based medicine,<sup>9-11,13,17-19</sup> participants were also asked if they used evidence-based medicine in their practice. Most of the participants (83%) reported currently utilizing evidence based medicine (EBM) in their practice, with 6.7%, or (10/165), of subjects listing that they were unsure if they used evidence based medicine in their practice.

## DISCUSSION

The overall purpose of this study was to determine the perceptions of Certified Athletic Trainers' in Pennsylvania in regard to third-party reimbursement in the athletic training profession. Third-party reimbursement is currently up for debate within the profession. Reimbursement is a relatively new topic, and as such there a lack of literature and existing research. Keeping this in mind the researcher felt that expanding the body of knowledge and research on the topic would be beneficial to the profession as a whole. This section will include three subsections: discussion of results, conclusions, and recommendations.

### Discussion of Results

This study found that athletic trainers in Pennsylvania support and value third-party reimbursement in the profession, as evidenced by 93.3% (154/165) of subjects stating that they support athletic trainers pursuing third-party reimbursement. This result was not found to be surprising, as the literature supports that there are many

benefits to third-party reimbursement in athletic training, such as increased value of an athletic trainer,<sup>14</sup> advancement of the profession in the medical community,<sup>15</sup> and an increase in clinician accountability.<sup>10,13</sup> Additionally, third-party reimbursement limits costs and encourages more use of preventative care.<sup>16</sup> Generalization of results are limited due to the small return rate of 16.5% (165/1000). However, the results were similar to those found by McPherson in the study entitled "Intercollegiate Athletic Trainers' Perception of Third-Party Reimbursement and Their Steps Toward Its Implementation." In McPherson's study, all nine, or 100%, of subjects working in the collegiate setting agreed that third-party reimbursement was of value to the athletic training profession.<sup>12</sup> In doing further analysis of the 11 (7%) of subjects-who did not support third-party reimbursement for the profession, there were no observable trends between reimbursement support and job setting or years of experience. This was found to be somewhat surprising, as the researcher felt prior to doing the study that high school athletic trainers would be the most opposed to third-party reimbursement. In the current study the breakdown of the subjects who did not support reimbursement by job setting was: 4 in the high school

setting, 3 in the college athletic setting, 3 in the clinical setting, and 1 working as a physical therapist.

The majority of athletic trainers in Pennsylvania indicated that they wanted to pursue reimbursement for their own practice. Just over half of the subjects, 54.5% (90/165), said that they would like to pursue reimbursement in their own practice, with 6.7% of subjects already billing. This 54.5% being compared to the 93.7% of subjects who support the profession pursuing third-party reimbursement leads to the question of what would keep the rest of the respondents from pursuing third-party reimbursement in their own practice.

Our second hypothesis acknowledges that previous question by stating that the researchers feel athletic trainers will support the following as barriers to reimbursement: ethical issues, complication of insurance paperwork, and time commitment. The results of our survey found that all three of these barriers were endorsed by athletic trainers; however, they were not the most commonly selected response. The most commonly selected barrier was "lack of education in regard to third-party reimbursement", with 70.3%, (116/165), of subjects selecting it as a barrier. The researcher feels that there may be other contributing factors to this high response rate, such as

the education level of the respondents and their years of experience. The question, which asked subjects which barriers they felt prevented the implementation of third-party reimbursement was further analyzed to see the years experience in relation to whether or not the subject felt a lack of education was a barrier. 70.3%, 116/165, of subjects answered that they perceived a lack of education to be a barrier to third-party reimbursement. The average range of years of experience as a certified athletic trainer of those subjects was 11-15 years, with a standard deviation of 1.96 between ranges, which occurred in five year increments. However, in the 29.7%, 49/165, of subjects who did not list a lack of education as a barrier, the average range of years of experience as a certified athletic trainer was 16-20 years, with a standard deviation of 2.22 between five year increment ranges. These average years of experience ranges shows that those who did not feel that a lack of education was a barrier were actually slightly more experienced than those who did feel education was a barrier. It is still possible that those who graduated from their undergraduate school prior to the mid-1990's, when the NATA began pursuit of third-party reimbursement,<sup>3</sup> were not exposed to reimbursement during their academic training. One respondent to the survey

backed this claim by stating, "My undergraduate and graduate education fell well short of providing a base for third-party reimbursement. My doctoral degree, which focused on outcomes-based medicine, did. But I concede I am older and the educational standards in the late 90's fell way short of today's standard." Also noted in our data was that the mean response to the Likert scale statement of "I feel my academic training (didactic or internship) has adequately prepared me to implement third-party reimbursement in my practice," was 3.61 with a standard deviation of 1.057. On a scale of 1-5, with one being strongly agree and five being strongly disagree, the mean response was between neutral and disagree. The researchers also calculated frequency counts on this statement, finding that 37.6%, or 62 of 165, of subjects answered "disagree" and that 21.2%, or 35 of 165, of subjects answered "strongly disagree". The literature on the education barrier was limited, although one article on the opinions of athletic training educators did find that these educators felt the need to educate students on evidence based medicine tied in closely with the success of third-party reimbursement.<sup>17</sup>

What was a bit surprising in the data was the much lower response for a disparity of evidence based medicine

in comparison to other professions as a barrier to third-party reimbursement. The data showed that only 20.0% (33/165) of subjects endorsed a disparity of evidence based medicine to be an issue in regard to reimbursement. In the review of literature completed prior to sending out the survey, this was the most consistently seen theme.<sup>9-11,13,15,17-19</sup> While 83.3% of respondents said they implemented evidence based medicine in their practice, only 20.0% felt that a lack of evidence based medicine prevented the implementation of third-party reimbursement, contrary to what was suggested in the literature. It is possible that the subjects asked were not aware of the connections between the two subjects that the literature found, resulting in the lower level of support for a disparity of evidence based practice as a barrier. Another slightly surprising response was only 24.8% of respondents saying they felt ethical issues were a barrier to implementing third-party reimbursement. In the McPherson study, this was listed by six of nine (66.7%) respondents as a barrier, and the researcher expected similar responses in this study, although it is noted that the McPherson study had a small sample size.<sup>12</sup>

The third and final hypothesis made by the researcher was that there would be a lack of understanding about



third-party reimbursement among athletic trainers. Upon completing the data analysis the researcher concluded that the survey did not accurately test the knowledge or understanding of athletic trainers in regard to third-party reimbursement. As noted previously, 70.3% of subjects listed lack of education as a barrier to reimbursement, and therefore perceive a lack of understanding among athletic trainers' in regard to third-party reimbursement, however the survey did not test athletic trainers' knowledge on reimbursement.

One finding that the researcher believes to be important in regard to the pursuit of third-party reimbursement was that 71.5% of subjects questioned had their National Provider Identifier number (NPI). This NPI number is vital for anyone who wishes to bill for services they provide, as it is required by insurers in order to receive payment. The researcher feels that this is evidence of the NATA's involvement in educating their members on the importance and value of third-party reimbursement and the NATA's encouragement of their members to pursue reimbursement in their own practice. The data also found that 25.5% of subjects had attended a workshop or supplemental training in regard to third-party reimbursement, which the researcher also feels is evidence

of the NATA and other professional athletic training organizations stepping in to educate and encourage participation in third-party reimbursement.

### Conclusions

The results of the study revealed the following major conclusions:

1. Ninety-three percent of athletic trainers in the state of Pennsylvania support the profession pursuing third-party reimbursement.
2. Seventy percent of athletic trainers in the state of Pennsylvania endorse a lack of education on third-party reimbursement as the most common barrier to its implementation. Other commonly identified barriers include: complexity of insurance paperwork and the time commitment to implement a reimbursement program.
3. Athletic trainers in the state of Pennsylvania feel that were not adequately prepared in their didactic or internship related training to implement third-party reimbursement in their own practice, as evidenced by a neutral to disagree level response to the Likert scale question of their preparation.

4. We found that 7.9%, 13/165, of our sample currently utilizes third-party reimbursement, using the 97000 series of codes.

#### Recommendations

The researchers feel that further research is necessary both in the state of Pennsylvania and in other states in order to gain a firm understanding of the perceptions of third-party reimbursement among athletic trainers. In addition, the researchers believe that there is a need for education of athletic training students, both at the undergraduate and graduate levels, about reimbursement. In addition to this, workshops and supplemental educational opportunities must continue to be made available to athletic trainers to ensure that this barrier is limited. The researchers believe that the benefits to third-party reimbursement outweigh the potential negative effects, and as such the profession should continue to move forward in its pursuit. Continuing to have open dialog among all athletic trainers, regardless of years experience, age, or setting, is very important to ensure that the profession and the professional organizations, such as NATA, make choices that are best for

athletic training. The researchers also feel that opening dialogue among athletic trainers and physical therapists would be beneficial to the profession as well as those who both professions care for.

## REFERENCES

1. Mosby. Mosby's Medical Dictionary. Mosby Incorporated; 2012.
2. Harrelson GL, Gardner G, Winterstein AP. Administrative Topics in Athletic Training, Concepts to Practice. SLACK Incorporated; 2009.
3. National Athletic Trainers' Association. Committee on Revenue. National Athletic Trainers' Association. <http://www.nata.org/COR>. Published 2013. Accessed September 22<sup>nd</sup>, 2013.
4. Jackson D. Physical therapy under Medicare Part B: how it all began. *PT: Magazine of Physical Therapy* [serial online]. May 2004;12(5):48. Accessed August 5, 2013.
5. About Physical Therapists. American Physical Therapist Association Web Site. <http://www.moveforwardpt.com/WhyTherapy/AboutPTs/>. Accessed August 5, 2013.
6. Mccallum CA, Diangelis T. Direct access: factors that affect physical therapist practice in the state of Ohio. *Phys Ther*. 2012;92(5):688-706.
7. Davenport TE, Sebelski CA. The physical therapist as a diagnostician: how do we, should we, and could we use information about pathology in our practice?. *Phys Ther*. 2011;91(11):1694-5.
8. Herbert D. NATA Antitrust Suit Against APTA Settled. *Sports, Parks & Recreation Law Reporter* [serial online]. December 2009;23(3):33-40. Accessed August 5, 2013.
9. Hertel J. Research Training for Clinicians: The Crucial Link Between Evidence-Based Practice and Third-Party Reimbursement. *Journal Of Athletic Training* [serial online]. April 2005;40(2):69-70. Accessed August 5, 2013.
10. Stevens R, Hootman J. Evidence-based medicine: what is it and how does it apply to athletic training?.

- Journal Of Athletic Training [serial online]. 2004 Jan-Mar 2004;39(1):83-87. Accessed August 5, 2013.
11. Tweed E, Sauers E, Ratner N, et al. Review for librarians of evidence-based practice in nursing and the allied health professions in the United States. Journal Of The Medical Library Association [serial online]. October 2007;95(4):394-407. Accessed August 5, 2013.
  12. McPherson B. Intercollegiate athletic trainer's perception of third-party reimbursement and their steps towards its implementation. [serial online]. 1999; Accessed August 5, 2013.
  13. Parsons J. Reflections on a Season of Reform. Athletic Therapy Today [serial online]. July 2010;15(4):1-3. Accessed August 5, 2013.
  14. Callahan E, Finkam S. A Case Study in Successful Third-Party Reimbursement in Indiana. Athletic Therapy Today [serial online]. July 2003;8(4):28-29. Accessed August 5, 2013.
  15. Campbell D. Reimbursement For Athletic Trainers in the Traditional Setting. College Athletic Trainers' Society. 1996:1. Accessed August 5, 2013.
  16. Streator S, Buckley, W. Risk management in athletic training. Athletic Therapy Today [serial online]. March 2001; 6(2): 55-59. Accessed August 5, 2013.
  17. Manspeaker S, Van Lunen B. Overcoming Barriers to Implementation of Evidence-Based Practice Concepts in Athletic Training Education: Perceptions of Select Athletic Training Educators. Journal of Athletic Training [serial online]. September 2011;46(5):514-522. Accessed August 5, 2013.
  18. Streator S, Buckley W. Clinical outcomes in sports medicine. Athletic Therapy Today [serial online]. September 2000; 5(5):57-61. Accessed August 5, 2013.
  19. Ingersoll C. It's Time for Evidence. Journal of Athletic Training [serial online]. January 2006;41(1):7. Accessed August 5, 2013.

APPENDICES

APPENDIX A:

Review of Literature



## REVIEW OF LITERATURE

The National Athletic Trainers' Association (NATA) defines athletic trainers as "health care professionals who collaborate with physicians to optimize activity and participation of patients and clients across age and care continuums."<sup>1</sup> The Athletic Training profession has grown to encompass many different employment settings, such as work in an outpatient clinic; in a high school, collegiate, or professional sport setting; work in the industrial setting; as well as work in the military.<sup>2,3</sup> At the core of it all, an athletic trainer's primary goal still remains the health and well being of their athlete or patient. However, just as every other profession, the overarching goal must be professional success and growth. This type of professional growth is achieved in part with respect from peer groups and financial compensation. The average salary of an athletic trainer according to the NATA Salary Survey was \$51, 483 in 2011, up from an average of \$44, 335 in 2008, which included those with bachelor's, master's and doctoral degrees spread across the many different settings for work.<sup>4</sup> While salary has increased, the NATA and athletic trainers continue to work toward gaining respect among our peers, one of the biggest differences between athletic

trainers and similarly trained health care professionals remains as third-party reimbursement.

The purpose of this literature review is to introduce the topic of third-party reimbursement in athletic training, discuss the importance of third-party reimbursement in a similar health care profession, such as Physical Therapy, show the connection between reimbursement and evidenced based practice, and identify the barriers that remain in the way of athletic trainers receiving payment.

#### Third-Party Reimbursement in Athletic Training

Third-party reimbursement occurs when an outside party, such as an insurance company, pays for services rendered to a patient.<sup>5</sup> This form of payment is commonplace within the medical community, and insurance companies in the United States are a thriving business. Insurance companies come in many forms as well, with many being private companies, such as Health Maintenance Organizations (HMOs) or Preferred Provider Organizations (PPOs), in addition to those run by the government, such as Medicaid and Medicare. The private organizations tend to follow the lead of the government bodies with regards to approving

care, and as such it is of the utmost importance at the current time to have a National Provider Identifier (NPI) number to receive reimbursement from both the government and private insurers. Having this number does not ensure payment from companies, but not having one will all but guarantee no payment.<sup>6</sup> In addition to this, the provider of care must be deemed "capable" of providing appropriate care, and "medical necessity" must be proven, often in the form of a physician referral. Another important factor is that the physician prescription should specifically state the need for athletic training services, not physical therapy, to increase the likelihood of approval.<sup>7</sup>

In the 1990's the NATA saw the importance of reimbursement in the profession, and by 1995 had created the Reimbursement Advisory Group (RAG). The goals of this group included education of athletic trainers on reimbursement, development of a model approach to third-party payers for reimbursement of athletic training, and design and implementation of a clinical outcomes data study. The RAG met its original goals and moved toward the implementation of state reimbursement committees, continuing the education of athletic trainers, approaching national allied health groups to seek representation, approaching payers on a national level, establishing

liaisons for support, and coordinate reimbursement work with the Governmental Affairs Committee and the three employment setting committees of the NATA.<sup>8</sup> Today the NATA has a Committee on Revenue at the national level, whose goal is to "Develop and provide resources to help athletic trainers create healthcare models that enhance business opportunities and return on investment."<sup>9</sup>

Successful examples of reimbursement exist in the athletic training world. Eric Callahan published a case study entitled "A Case Study in Successful Third-Party Reimbursement in Indiana" in which he highlights a sports medicine clinic's successful adoption of insurance billing with ATCs. Callahan highlights which codes were billed with the most success, one for therapeutic exercise, and which the least, one for evaluation by an athletic trainer and reevaluation by an athletic trainer. For those which were least reimbursed, for evaluation and reevaluation, the author notes: "we think that this lower rate is a result of...being new codes and their lack of use by ATCs." It is also important to note that this specific case study only highlighted commercial insurance companies. Overall, the findings of this case study showed encouraging results for athletic trainers in the clinical setting, and the revenue made was put into the high school outreach athletic

training program run by the clinic.<sup>10</sup> While in this example is certainly encouraging, there still remains a general lack of literature on the topic of third-party reimbursement in athletic training, making it difficult to form any conclusions on the subject.

### Third-Party Reimbursement in Physical Therapy

Comparing athletic training to physical therapy is easy in many ways, as they share similar professional goals in regard to patient care. At the core of physical therapy is rehabilitation of patients, which is also a domain in athletic training. A staunch difference in the professions is the amount of education necessary to practice. Physical therapists must now achieve a doctorate in physical therapy degree, in addition to passing a licensure exam, in order to practice<sup>11,12</sup>, while athletic trainers need only a bachelor's degree, although nearly 70% of athletic trainers have a Master's degree or higher.<sup>1,13</sup>

Dode Jackson, a long time American Physical Therapists Association (APTA) member, wrote an article entitled "Physical Therapy Under Medicare Part B: How It All Began," which begins to shed some light on the strides that their profession has taken in the past forty years. Dode explains

his involvement in ensuring that private practice physical therapists were a part of Medicare coverage, and goes into some detail about the amount of work it took to reach their goal. He explains the lobbying, politics, and financial backing that were all necessary to be sure that this large step forward occurred for physical therapists. Dode speaks of having to personally fund some of his work, the connections he had to make, and the politicians he had to please and those he had to fight. Although his experience was in the 1960's and 70's, this article is a glance into what it takes to cause reform in the government.<sup>14</sup>

Even with the advances that are described in Dode's work, many issues related to reimbursement remain for physical therapists as well. Perhaps the biggest barrier that their profession faces is a lack of "direct access". The APTA lists the problem as: "In many jurisdictions, the practice of physical therapy is contingent upon the prescription or referral of a physician. This requirement does not recognize the professional training and expertise of the licensed physical therapist nor does it serve the needs of those patients who require physical therapy but must first be seen by a physician."<sup>11,12</sup> Todd Davenport and Chris Sebeliski write that this idea undermines the abilities of physical therapists as diagnosticians and that

physical therapists "must decide the appropriateness of physical therapy for patients."<sup>15</sup> A study by McCallum and Diangelis showed that a large proportion of physical therapists would like to use direct access in practice, however many are blocked from doing it because of company policy, likely because they work for larger corporations as opposed to smaller privately owned companies. In fact, this study noted that many who claimed to be using a direct access model still were required to receive a physician referral for care. The greatest reason cited for the need to stick with the status quo and continue to obtain referrals from physicians is a fear of denied insurance claims. The study showed some success in receiving reimbursement without a referral, but this was deemed the exception and not the rule.<sup>12</sup>

Perhaps the most stressed point in the literature is the need for education on the rules and regulations both nationally and within the state. Michele Wojciechowski wrote "Third-Party Payers: Strategies for Private Practice PTs" in which she discussed the ins and outs of third-party payment with various physical therapists. Physical Therapists working in a private practice setting must negotiate with different groups in order to have a contract with them to receive reimbursement from patients. This fact

alone shows the need for physical therapists to know everything they can. The article quotes Rich Katz, the director of contracting and business development for Therapeutic Associates Inc., "What's important is to become as knowledgeable about health plan contracting and the business analysis that should be applied to it."<sup>16</sup>

Chris Hayhurst also discusses how physical therapists can work to address reimbursement issues in his article "How PTs are Influencing Reimbursement at the State Level." In this Erik Van Doorne is interviewed to discuss his experience in working with insurers one on one to communicate the needs of the profession in the state of Delaware. The solution that he discovered was creating a "payer-relations" committee to communicate directly with the companies. In other states groups looked toward professional advisors with a background in insurance policy, and in other areas they pursued the use of lobbyists. Throughout the article it seems that the desire to communicate was mutual between the companies and the physical therapist groups.<sup>17</sup>

However comparable athletic training and physical therapy may be, the relationship between the two professions has been nothing short of volatile. In February of 2008 the NATA filed suit against the APTA, alleging



antitrust violations in efforts to limit competition. Among the claims made by the NATA in the suit were accusing the APTA of "manipulating the Coders' Desk Reference for Procedures to favor PTs and their practice" as well as "misstating the proper and appropriate use of the physical medicine codes of the Current Procedural Terminology, as issued by the American Medical Association, by falsely informing physical therapy students that certain codes are exclusively for use by PTs." The article on the suit goes on to state that the APTA had an agreement with the publisher of the Coders' Desk Reference for Procedures to approve certain descriptions to hinder athletic trainers practice, all in the hopes of creating a monopoly in the market. In this case the APTA moved to have the suit dismissed, but the court found that the NATA sufficiently pleaded their claims. Eventually the suit between the two associations was settled, with both noting specific codes were reserved for each profession, and other codes were not exclusive to any one profession.<sup>18</sup>

Regardless of the relationship between the two professional associations, the professions themselves could learn a lot from each other, in particular with regard to third-party reimbursement. Physical therapy has been an established profession and had the respect of the medical

community for many years, while the athletic training profession continues to strive for the respect of its peers. Chronicling the struggles that the APTA had in regards to receiving fair compensation from insurers is an important step in considering the path that athletic training must take. The NATA has worked tirelessly to follow in their footsteps, and as shown in their lawsuit, will not let the profession be trampled upon.

#### Evidence Based Practice

The subject matter which was most consistent throughout the search of literature the integral relationship between evidence based practice and reimbursement. Evidence based practice is defined as "the use of systematic decision making processes or provision of services which have been shown, through available scientific evidence, to consistently improve measurable client outcomes."<sup>19</sup> Jay Hertel, a professor and certified athletic trainer (ATC) from the University of Virginia, states in his editorial "Research Training for Clinicians: The Crucial Link Between Evidence-Based Practice and Third-Party Reimbursement," stating that "Third-party reimbursement is a challenge facing athletic trainers in

numerous practice settings. The stark reality is that without documented evidence showing the effectiveness of clinical interventions rendered by ATCs, reimbursement is a pipe dream." Hertel continues on to state that although this will be a challenge for athletic trainers, it also will force accountability for the treatments given and be a positive for the athletes and patients cared for.<sup>20</sup>

This point is further discussed by Christopher Ingersoll in his editorial "It's Time for Evidence." Ingersoll discusses the duty that athletic trainers have as health care professionals to have the patient and athlete's best interest in mind, and as such it is the athletic trainer's responsibility to ensure the products being used have a clinical significance. In his piece he notes how others within the medical community work hand in hand with manufacturers of products to ensure positive results. In order for this to be a viable option for athletic trainers, real research, and not a mere gut instinct, must occur.<sup>2,21</sup>

Continuing with the discussion of the importance of published evidence on the effectiveness of treatment methods, Stevens and Hootman state that: "As more athletic trainers bill third parties for their services, those third-party payers will require evidence that the interventions are effective. Reimbursement may be difficult

or impossible to obtain for those procedures not shown to be effective."<sup>22</sup>

While third-party reimbursement remains a goal in athletic training to achieve success and financial compensation, it must also be noted that it is a responsibility as well to hold ourselves accountable. This statement is echoed by John Parsons in his piece entitled "Reflections on a Season of Reform." Parsons states that he supports athletic trainers pursuing third-party reimbursement, not necessarily for the financial compensation it could bring, but because it will "subject the profession to a set of external forces, in the form of policy and procedural requirements that will bring necessary change and quality control measures that will ultimately be beneficial to the profession and our patients."<sup>23</sup>

An educator interviewed for the research done by Manspeaker and Hootman noted that the importance of accountability, saying this of physical therapists: "They have to answer somebody. They have to answer to the public. They have to answer to insurance companies. They have to answer to physicians;" with yet another educator agreeing stating that "We are not held accountable to outside stakeholders."<sup>24</sup>

In "Clinical Outcomes in Sports Medicine" by Stephen Streater and William Buckley, a point is stressed that the evolution of health care has led to a focus on limiting costs and preventative care. Third-party payers, the article states, will scrutinize any treatment or care until they are convinced that the care rendered was appropriate. This once again illustrates, albeit in slightly different terminology, evidence based practice. The core concept remains that results have to be seen, and documented, in order for third-party reimbursement to work in sports medicine.<sup>25</sup> This point is further made by Buckley and Streater in which they state: "In every aspect of health care, trends point toward increasing data collection to satisfy the demands of third-party payers, the government, and others wanting proof that health care workers are meeting the standards of quality." Documentation of care and results is vital, and a major responsibility of athletic trainers to ensure not only their standing as a health care professional, but their standing in the eyes of third-party payers.<sup>26</sup> Dan Campbell speaks to the issue of documentation in his piece "Reimbursement for Athletic Trainers in the Traditional Setting." Here he speaks of some of the issues perceived with insurance billing, such as the history of the profession being "non-revenue

generating" and the "desire to serve the needs of others without having to worry about the financial element associated with providing that care." However, Campbell goes on to note that the profession must take a hold of the opportunity to advance and run with it.<sup>27</sup>

### Barriers to Implementation

Many barriers exist to hinder the progress of implementing a working reimbursement system in athletic training. Among these is a perception of no benefit among athletic trainers, a disparity of evidence based practice in comparison to other professions, and a lack of education.

In regard to athletic trainers' perception of reimbursement, the literature is light at best; however, one study was found, entitled "Intercollegiate Athletic Trainers Perception of Third-Party Reimbursement and Their Steps Toward Its Implementation." In this paper the author, Benetta McPherson, approached intercollegiate level athletic trainers and surveyed them on their opinions on third-party reimbursement. Her findings showed that while athletic trainers thought seeking reimbursement would be beneficial to the profession, they did not see the benefit

of pursuing it as a collegiate level athletic trainer. Some respondents also noted their feelings that it would be unfair to athletes to charge for services that they had not charged for in the past, and others also noted they felt it would create more work for athletic trainers. Of her nine respondents, only three had billing and insurance coordinators, and eight had not developed a strategic plan for pursuing third-party reimbursement.<sup>8</sup>

Contrary to athletic trainers' perception, literature does exist pointing out the fact that the athletic training profession is far behind when compared to their peers.<sup>13,22</sup> An article highlighting evidence based practice in many professions across the United States discusses the state of evidence based practice in athletic training. To summarize, the authors state that "Overall, EBP's penetration into athletic training is in its initial steps...work still needs to be done to increase the body of athletic training evidence."<sup>13</sup>

Further literature delves into a related issue: education of undergraduate students.<sup>2,24</sup> One article, written by Manspeaker and Van Lunen, discusses some topics which are perceived by many educators to be under emphasized in entry-level and continuing education programs, including evidence based practice and third-party reimbursement.<sup>24</sup>

Education on the topic needs to begin with students to fully prepare them for life as a working professional. While the NATA has worked toward educating certified athletic trainers, the literature asserts that there remains a gap in young professionals and athletic training students.

### Summary

In the ever changing world of health care it is vital that professions adapt to the changes they are faced with, and in order to remain competitive and gain respect within the medical community and financial compensation, athletic trainers must adapt. Moving toward the implementation of third-party reimbursement is one opportunity to ensure competitive balance as a profession, and in order to accomplish this, the profession must make moves to please third-party payers. Just as important as third-party reimbursement is that of evidence based practice, as the two go hand in hand. In order to prove their worth to outside forces, athletic trainers must document and scientifically support their claims. In addition to this, educating athletic training students and young professionals remains a key to the understanding and



further implementation of third-party reimbursement.

However, wanting to help themselves and having the desire to pursue third-party reimbursement is of equal importance to the success of this movement and the growth of the athletic training profession.

APPENDIX B:

The Problem

## STATEMENT OF THE PROBLEM

Athletic trainers have struggled for years to gain the respect and recognition of their fellow medical professionals as well as the general public. Recent legislation has allowed for athletic trainers to apply for provider numbers, the numbers which are necessary for professionals when working under the government insurers Medicare and Medicaid, opening up opportunities to bill insurance companies for their services. However, in particular settings the ability to bill for services seems daunting, with many barriers such as a lack of education and battles with insurance providers standing in the way. Having the ability to bill for services will help athletic trainers gain respect amongst their peers in addition to bringing in greater revenue for the company for which they work. On the other hand, the issues logistically, and in some eyes morally, remain a problem. The purpose of this study is to question athletic trainers in the state of Pennsylvania to discover their opinions and ideas about third-party reimbursement in the profession, as well as adding to the current literature.

### Basic Assumptions and Limitations

The following are basic assumptions of this study:

- 1) Subjects have completed the survey accurately and honestly.
- 2) Respondents completing the survey may have a greater interest in reimbursement compared to non-responders.
- 3) Subject pool was limited to those with online access.

### Delimitations of the Study

The following are possible delimitations of the study:

1. Data from 165 subjects were analyzed.
2. A reminder email was sent to participants (one week after initial email) to encourage participation.
3. The NATA selected 1,000 ATs randomly to complete the survey.

### Significance of Study

Athletic Trainers exist in many different professional settings, from the clinical setting to the high school setting, and from college setting to the professional athletics; and just like most other professions, the value of an athletic trainer is often linked to the revenue he or

she is able to bring in to their company. Because of this, discussion exists within the athletic training community that third-party reimbursement would increase the value of athletic trainers, thus increasing the salary of athletic trainers. However, there are perceived issues with third-party reimbursement, such as the difficulty and time commitment of paperwork and the possible ethical issues for charging for services previously provided free of charge. It is important to understand the current reimbursement practice of athletic trainers as well as their perception of reimbursement. In doing so, this research may shed light on identifying barriers that may hinder reimbursement implementation.

APPENDIX C:

Additional Methods

APPENDIX C1:

Cover Letter

Dear Certified Athletic Trainer:

My name is Erin Leaver and I am currently a graduate athletic training student at California University of Pennsylvania performing thesis research. I am conducting survey research to evaluate Pennsylvania athletic trainers' perception of third-party reimbursement. A survey is being distributed to add to the literature on third-party reimbursement in athletic training in Pennsylvania in regard to the prevalence of reimbursement, the opinions of athletic trainers' on the value of reimbursement, the barriers that exist in the implementation of third-party reimbursement, and athletic trainers' perceived knowledge on reimbursement.

You are being asked to participate due to being a certified athletic trainer practicing in the state of Pennsylvania, as well as being a member of NATA; however, your participation is voluntary and you do have the right to choose to not complete this survey. You also have the right to discontinue participation at any time during the survey completion process at which time your data will be discarded. The California University of Pennsylvania Institutional Review Board has reviewed and approved this project. The approval is effective 03/31/14 and expires 03/31/15.



All survey responses are anonymous and will be kept confidential, and informed consent to use the data collected will be assumed upon return of the survey. Completed surveys will not have any information that will allow you to be identified or allow for your data to be associated with you. Completed surveys will be kept on a password protected online database until they are entered into a spreadsheet for data analysis after which they will be removed from the database. Electronic data will be stored in password-protected files on a University server. Minimal risk is posed by participating as a subject in this study. I ask that you please take this survey at your earliest convenience as it will take approximately 15-20 minutes to complete. If you have any questions regarding this project, please feel free to contact the primary researcher, Erin L. Leaver, LAT, ATC at Lea9932[REMOVED] or [REMOVED]. The faculty advisor for this research is Jodi Dusi, MPT, PhD, and she may be reached at [REMOVED].

Please use the below link to access the survey:

[REMOVED]

Thank you for taking the time to take part in this research. I greatly appreciate your time, thought and effort you have put into completion of the survey.

Sincerely,

Erin L. Leaver LAT, ATC  
Primary Researcher  
California University of Pennsylvania  
250 University Ave  
California, PA 15419  
[Contact information removed]

APPENDIX C2:

Institutional Review Board: California University of  
Pennsylvania

Institutional Review Board  
California University of Pennsylvania  
Morgan Hall, Room 310  
250 University Avenue  
California, PA 15419  
instreviewboard@calu.edu

Robert Skwarecki, Ph.D., CCC-SLP, Chair

Dear Erin Leaver,

Please consider this email as official notification that your proposal titled "Athletic Trainers' Perceptions of Third-Party Reimbursement in Pennsylvania" (Proposal #13-051) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of the approval is 3-31-2014 and the expiration date is 3-30-2015. 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 3-30-2015 you must file additional information to be considered for continuing review. Please contact [instreviewboard@calu.edu](mailto:instreviewboard@calu.edu).

Please notify the Board when data collection is complete.

Regards,

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

APPENDIX C4:

Athletic Trainers' Perceptions of Third-Party Reimbursement  
Survey

**\*1.**

**February 27, 2014**

**Dear Certified Athletic Trainer:**

**My name is Erin Leaver and I am currently a graduate athletic training student at California University of Pennsylvania performing thesis research. I am conducting survey research to evaluate Pennsylvania athletic trainers' perceptions of third party reimbursement. A survey is being distributed to add to the literature on third party reimbursement in athletic training in Pennsylvania in regard to the prevalence of reimbursement, the opinions of athletic trainers' on the value of reimbursement, the barriers that exist in the implementation of third party reimbursement, and athletic trainers' perceived knowledge on reimbursement.**

**You are being asked to participate due to being a certified athletic trainer practicing in the state of Pennsylvania, as well as being a member of NATA; however, your participation is voluntary and you do have the right to choose to not complete this survey. You also have the right to discontinue participation at any time during the survey completion process at which time your data will be discarded. The California University of Pennsylvania Institutional Review Board has reviewed and approved this project. The approval is effective 03/31/14 and expires 03/31/15.**

**All survey responses are anonymous and will be kept confidential, and informed consent to use the data collected will be assumed upon return of the survey. Completed surveys will not have any information that will allow you to be identified or allow for your data to be associated with you. Completed surveys will be kept on a password protected online database until they are entered into a spreadsheet for data analysis after which they will be removed from the database. Electronic data will be stored in password-protected files on a University server. Minimal risk is posed by participating as a subject in this study. I ask that you please take this survey at your earliest convenience as it will take approximately 15-20 minutes to complete. If you have any questions regarding this project, please feel free to contact the primary researcher, Erin L. Leaver, LAT, ATC at [Lea9932@calu.edu](mailto:Lea9932@calu.edu) or 412-526-2654. The faculty advisor for this research is Jodi Dusi, MPT, PhD, and she may be reached at [dusi@calu.edu](mailto:dusi@calu.edu).**

**Thank you for taking the time to take part in this research. I greatly appreciate your time,**

**thought and effort you have put into completion of the survey.**

**Sincerely,**

**Erin L. Leaver LAT, ATC  
Primary Researcher  
California University of Pennsylvania  
250 University Ave  
California, PA 15419  
Lea9932@calu.edu  
412-526-2654**

Please indicate that you have read the cover letter by clicking here.



## Age Verification

If you are not above the age of 18, you are not eligible to complete this survey and you will be redirected to the final page. I thank you for your participation.

**\*2. Are you 18 or older?**

Yes

No

## Survey Questions

### \*3. What is your practice setting?

- High School (ie employed by school)
- Clinical Outreach at a High School
- College/University (Athletic only)
- College/University (split athletic and academic)
- College/University (Academic only)
- Clinical (Such as Physician Extender, PT clinic, Outpatient Rehab Clinic)
- Industrial
- Other (please specify)

### \*4. How many years have you been practicing as a Certified Athletic trainer?

- < 1 Year
- 1-5 Years
- 6-10 Years
- 11-15 Years
- 16-20 Years
- 21-25 Years
- 26-30 Years
- 31-35 Years
- 36-40 Years
- 40+ Years

**\*5. How many years have you been credentialed (certified/licensed) to practice in the state of Pennsylvania?**

- < 1 Year
- 1-5 Years
- 6-10 Years
- 11-15 Years
- 16-20 Years
- 21-25 Years
- 26-30 Years
- 31-35 Years
- 36-40 Years
- 40+ Years

**\*6. Please check all additional credentials you have. (Other than ATC, LAT, CPR/AED/First Aid)**

- PT (Physical Therapist)
- DPT (Doctor of Physical Therapy)
- PTA (Physical Therapist Assistant)
- OT (Occupational Therapist)
- MD (Doctor of Medicine)
- DO (Doctor of Osteopathic Medicine)
- CSCS (Certified Strength and Conditioning Specialist)
- PES (Performance Enhancement Specialist)
- EMT (Emergency Medical Technician)
- OTC (Certified Orthopaedic Technologist)
- DC (Doctor of Chiropractic Medicine)
- No Others

Other (please specify)

**\*7. Do you have an NPI number?**

- Yes
- No
- Unsure

**\*8. Do you or your employer bill for services that you provide (CPT series 97000)?**

- Yes  
 No  
 Unsure

**\*9. Do you or your employer bill for services you provide under the direct supervision or direction of a physical therapist?**

- Yes  
 No  
 Unsure

**\*10. Do you currently utilize evidence based medicine in your practice? (Such as implementing research based care in your practice)**

- Yes  
 No  
 Unsure

**\*11. If you or your employer do provide medical and rehabilitative services but do not currently bill for them, is billing something you are interested in pursuing?**

- Yes  
 No  
 If my employer do(es) currently bill for services I provide

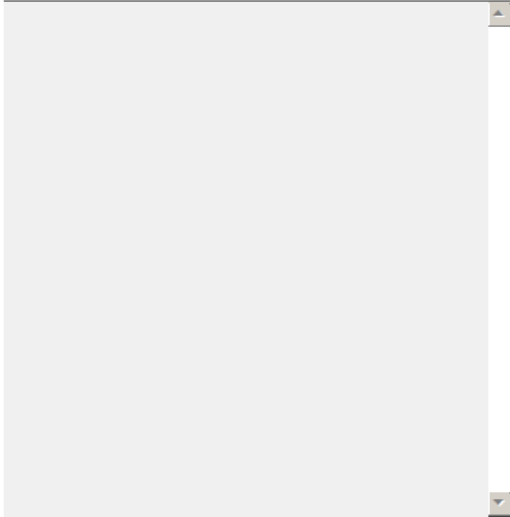
**\*12. Have you ever attended or participated in workshops or supplemental training pertaining to third party reimbursement?**

- Yes  
 No

**\*13. Do you support athletic trainers pursuing third party reimbursement for services provided? Please explain.**


- Yes  
 No

Feel free to expand on your answer here.



**\*14. What factors do you believe negatively influence athletic trainers seeking third party reimbursement? Please check all that apply.**

- Ethical Issues (regarding charging for services not previously charged for)  
 Time Commitment to Implement  
 Difficulty of Paperwork and Insurance Related Work  
 Lack of Education on Third Party Reimbursement  
 Disparity in Evidence Based Practice Compared to Other Professions  
 The Perception of No Benefit to Athletic Trainers  
 Please list other barriers you feel prevent the implementation of third party reimbursement in athletic training.



**15. In what ways do you see third party reimbursement helping the athletic training profession, if any?**



**\*16. I feel comfortable with my overall knowledge of third party reimbursement.**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**\*17. I feel the need to attend future workshops or supplemental training sessions regarding third party reimbursement.**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**\*18. I feel that my academic training (didactic or internship) has adequately prepared me to implement third party reimbursement in my practice.**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

**19. If you have any other comments, please feel free to leave them here.**

## Thank You Participation Page

Thank you for your participation in this study, if you have any further questions please contact the primary researcher, Erin L. Leaver via email at [lea9932@calu.edu](mailto:lea9932@calu.edu), or by phone at 412-526-2654. For more information on my institution, please visit [www.calu.edu](http://www.calu.edu).

## APPENDIX C5: References



## REFERENCES

1. Profile of Athletic Trainers. National Athletic Trainers Association Web Site. [http://www.nata.org/sites/default/files/AT\\_Facts\\_revSept2011.pdf](http://www.nata.org/sites/default/files/AT_Facts_revSept2011.pdf). Published September 2011. Accessed August 5, 2013.
2. Delwiche F, Hall E. Mapping the literature of athletic training. *Journal Of The Medical Library Association* [serial online]. April 2007;95(2):195-201. Accessed August 5, 2013.
3. Hazelbaker C. Perceived Skills and Abilities Required by Athletic Trainers in Hospital and Clinical Management Positions: A Delphi Study. *Journal Of Athletic Training* [serial online]. January 2013;48(1):87-91. Accessed August 5, 2013.
4. Lowe R. Athletic Training Salaries on the Rise According to Latest Survey. National Athletic Trainers Association Web Site. <http://www.nata.org/sites/default/files/SalarySurvey11.pdf>. Published November 2011. Accessed August 5, 2013.
5. Mosby. *Mosby's Medical Dictionary*. Mosby Incorporated; 2012.
6. Harrelson GL, Gardner G, Winterstein AP. *Administrative Topics in Athletic Training, Concepts to Practice*. SLACK Incorporated; 2009.
7. Centers for Medicare and Medicaid Services. National Provider Identifier Standard. Centers for Medicare and Medicaid Services. <http://www.cms.gov/Regulations-and-Guidance/HIPAA-Administrative-Simplification/NationalProvIdentStand/index.html?redirect=/nationalprovidentstand/> Published April 5<sup>th</sup>, 2013. Accessed September 22<sup>nd</sup>, 2013.
8. McPherson B. Intercollegiate athletic trainer's perception of third-party reimbursement and their steps towards its implementation. [serial online]. 1999; Accessed August 5, 2013.

9. National Athletic Trainers' Association. Committee on Revenue. National Athletic Trainers' Association. <http://www.nata.org/COR>. Published 2013. Accessed September 22<sup>nd</sup>, 2013.
10. Callahan E, Finkam S. A Case Study in Successful Third-Party Reimbursement in Indiana. *Athletic Therapy Today* [serial online]. July 2003;8(4):28-29. Accessed August 5, 2013.
11. About Physical Therapists. American Physical Therapist Association Web Site. <http://www.moveforwardpt.com/WhyTherapy/AboutPTs/>. Accessed August 5, 2013.
12. McCallum CA, Diangelis T. Direct access: factors that affect physical therapist practice in the state of Ohio. *Phys Ther*. 2012;92(5):688-706.
13. Tweed E, Sauers E, Ratner N, et al. Review for librarians of evidence-based practice in nursing and the allied health professions in the United States. *Journal Of The Medical Library Association* [serial online]. October 2007;95(4):394-407. Accessed August 5, 2013.
14. Jackson D. Physical therapy under Medicare Part B: how it all began. *PT: Magazine of Physical Therapy* [serial online]. May 2004;12(5):48. Accessed August 5, 2013.
15. Davenport TE, Sebelski CA. The physical therapist as a diagnostician: how do we, should we, and could we use information about pathology in our practice?. *Phys Ther*. 2011;91(11):1694-5.
16. Wojciechowski M. Third-Party Payers: Strategies for Private Practice PTs. *PT: Magazine Of Physical Therapy* [serial online]. April 2009;17(3):32-37. Accessed August 5, 2013.
17. Hayhurst C. How PTs Are Influencing Reimbursement at the State Level. *PT: Magazine Of Physical Therapy* [serial online]. September 2009;17(8):34-36. Accessed August 5, 2013.
18. Herbert D. NATA Antitrust Suit Against APTA Settled. *Sports, Parks & Recreation Law Reporter* [serial

- online]. December 2009;23(3):33-40. Accessed August 5, 2013.
19. University of Washington School of Medicine. What is EBP? Department of Psychiatry and Behavioral Sciences. <http://depts.washington.edu/ebpi/>. Published 2008. Accessed September 22<sup>nd</sup>, 2013.
  20. Hertel J. Research Training for Clinicians: The Crucial Link Between Evidence-Based Practice and Third-Party Reimbursement. *Journal Of Athletic Training* [serial online]. April 2005;40(2):69-70. Accessed August 5, 2013.
  21. Ingersoll C. It's Time for Evidence. *Journal Of Athletic Training* [serial online]. January 2006;41(1):7. Accessed August 5, 2013.
  22. Stevens R, Hootman J. Evidence-based medicine: what is it and how does it apply to athletic training?. *Journal Of Athletic Training* [serial online]. 2004 Jan-Mar 2004;39(1):83-87. Accessed August 5, 2013.
  23. Manspeaker S, Van Lunen B. Overcoming Barriers to Implementation of Evidence-Based Practice Concepts in Athletic Training Education: Perceptions of Select Educators. *Journal Of Athletic Training* [serial online]. September 2011;46(5):514-522. Accessed August 5, 2013.
  24. Parsons J. Reflections on a Season of Reform. *Athletic Therapy Today* [serial online]. July 2010;15(4):1-3. Accessed August 5, 2013.
  25. Streator S, Buckley W. Clinical outcomes in sports medicine. *Athletic Therapy Today* [serial online]. September 2000;5(5):57-61. Accessed August 5, 2013.
  26. Streator S, Buckley W. Risk management in athletic training. *Athletic Therapy Today* [serial online]. March 2001;6(2):55-59. Accessed August 5, 2013.
  27. Campbell D. Reimbursement For Athletic Trainers in the Traditional Setting. *College Athletic Trainers' Society*. 1996: 1. Accessed August 5, 2013.

## ABSTRACT

Title: ATHLETIC TRAINERS' PERCEPTIONS OF THIRD-PARTY REIMBURSEMENT

Researcher: Erin L. Leaver

Advisor: Dr. Jodi Dusi

Date: May 2014

Research Type: Master's Thesis

Context: This study evaluated the perceptions of athletic trainers in Pennsylvania in regard to the topic of third-party reimbursement in the profession.

Objective: The aims of this study were to: determine the prevalence of third-party reimbursement by certified athletic trainers (ATCs) in Pennsylvania; describe their opinions on the value of third-party reimbursement; identify barriers that prevent the implementation of third-party reimbursement; and describe their perceived knowledge of third-party reimbursement.

Design: Descriptive research study

Setting: The researcher distributed a cover letter containing a link to an internet based survey to NATA, who then sent this cover letter and survey to 1,000 athletic trainers in the state of Pennsylvania.

Subjects: Certified athletic trainers practicing in the state of Pennsylvania.

Interventions: The survey was created by the researcher, with some questions modified from a similar survey by Wisconsin Athletic Trainers' Association, and the survey was administered

to subjects via email from the NATA. The data were analyzed using SPSS.

**Measurements:** Frequency counts were utilized to summarize data. Mean scores were also determined for the Likert scale questions. Open-ended comments were analyzed for common themes.

**Results:** Most of the survey respondents (93%) supported the pursuit of third-party reimbursement by ATCs in Pennsylvania and 55% of respondents would like to pursue billing in their own practice. However, only 8% of respondents currently utilize third-party reimbursement for athletic training services provided. Barriers to implementation of third-party reimbursement include a lack of education, complexity of insurance paperwork, and time commitment to implementing a reimbursement system. Additionally, subjects were in general relatively "neutral" in their self-perception of knowledge regarding third-party reimbursement (mean score  $3.02 \pm 1.06$ ).

**Conclusion:** The study revealed that athletic trainers in the state of Pennsylvania support the profession pursuing third-party reimbursement despite low prevalence rates. Lack of education was the most commonly endorsed barrier and respondents lacked confidence in their self-perceived knowledge regarding third-party reimbursement.