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Clinical Satisfaction Levels of National Athletic Trainers' Association Accredited Post-Professional Athletic Training Graduates

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CLINICAL SATISFACTION LEVELS OF

NATIONAL ATHLETIC TRAINERS' ASSOCIATION

ACCREDITED POST-PROFESSIONAL ATHLETIC TRAINING GRADUATES

by

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ABSTRACT

CLINICAL SATISFACTION LEVELS OF
NATIONAL ATHLETIC TRAINERS' ASSOCIATION
ACCREDITED POST-PROFESSIONAL ATHLETIC TRAINING GRADUATES

Nicole Catalano
Old Dominion University, 2011
Director: Dr. Bonnie Van Lunen

Context: There is currently limited research on the satisfaction of graduates from NATA Accredited Post-Professional Athletic Training Education Programs (PPATEP). Outcome measures of satisfaction scores are necessary to evaluate the quality of these programs. **Objective:** Identify clinical satisfaction levels of 2009-2010 graduates of NATA Accredited PPATEPs. The focus was on differences in supervision levels, varying contact time with clinical staff, average hours at the clinical site/week, and mentorship. **Design:** Cross-sectional survey instrument. **Setting:** Online survey instrument. **Participants:** Of the 267 participants, 106 completed and submitted the survey. Response rate: 39.7%. **Intervention:** E-mail address for graduates of NATA Accredited PPATEPs (n = 308) from May 2009-August 2010 were collected from the NATA online member directory database. An initial email was sent to participants with a follow up e-mail was sent out once per week for the four weeks. **Main Outcome Measures:** This survey instrument was created using Inquisite 9.5 Corporate Survey Builder. Demographic information and satisfaction scores related to components of the clinical education plan were obtained. **Results:** All graduates of 2009 and 2010 NATA Accredited PPATEPs were found to be at least very satisfied with their overall clinical education plan. Time performing athletic training duties (P=.349), amount of autonomy

(P=.167), and amount of direct contact with clinical supervisor (P=.241), were not found to be indicators of clinical satisfaction. There was no significant difference between number of hours per week spent at the clinical placement (P=.142) and the overall satisfaction score. A statistically significant positive correlation (r=.287, P=.003) was found between level of satisfaction with formal and informal feedback about performance during their clinical experience and how often participants had direct contact with their clinical supervisor. A statistically significant positive correlation (r=.510, P= <.001) between the level of satisfaction with the mentorship that participants received from their primary clinical mentor and how often participants had direct contact with their clinical supervisor. **Conclusions:** The satisfaction score results suggest that graduates of NATA Accredited PPATEPs are generally satisfied in most areas of their clinical education but satisfaction in areas such as mentorship and feedback are lacking. **Key Words:** clinical education, satisfaction, graduate education.

"Without inspiration the best powers of the mind remain dormant.
There is a fuel in us which needs to be ignited with sparks."
Johann Gottfried Von Herder

This thesis is dedicated to my parents. You ignited my spark.

ACKNOWLEDGEMENTS

Through the process of completing this thesis, I have had the opportunity to work closely with an astonishingly intelligent and driven group of individuals. First, I'd like to thank Dr. Bonnie Van Lunen because without her this project would have never began, let alone come to fruition. I have never known another individual with such immense patience and determination; you are truly inspiring! Second, I'd like to thank my committee members: Dr. Dorice Hankemeier, Dr. Sarah Manspeaker and Jess Walter. Your tireless efforts do not go without recognition; I couldn't have done it without your constant guidance and encouragement. Next, I'd like to thank Taylor Arman, my sanity and my rock. Without Taylor's encouraging words and support, I don't know that I could have made it through all of the overwhelming obstacles that we had to conquer. I'd like to thank my classmates for always being there especially when I needed to get my mind of off schoolwork, even just for a little while. Last, but certainly not least, I'd like to thank my parents who have always supported and encouraged me in all of my endeavors.

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CHAPTER I

INTRODUCTION

Since its beginnings in 1972, post-professional athletic training education has evolved over the past thirty years to encompass components that are specific to formulation of professionals beyond the entry level (Delforge & Behnke, 1999). In 1994, the National Athletic Trainers' Association (NATA) Board of Directors (BOD) created an Education Task Force to address issues in professional athletic training education (Peer & Rakich, 2000). This task force was charged with creating a quality control model, which focused on the educational preparation of the athletic trainer. A problem-solving model was used to create 18 initiatives necessary for reform. In 1996, the focus of the education reform in athletic training shifted to graduate education. Based on the recommendations made by the Education Task Force, an Education Council was assembled (Delforge & Behnke, 1999). This new Education Council, appointed by the BOD, was asked to activate a quality control model focusing on the educational preparation of future athletic trainers (Delforge & Behnke, 1999). That same year, the Graduate Education Committee, which was part of the NATA Education Council, was given the duty of distinguishing the standards and requirements of entry-level and post-certification programs (Delforge & Behnke, 1999). This was such an important time because it was the first time that a distinction was made between entry-level education and a post-professional master's degree program (Henry, Van Lunen, Udermann, & Oñate, 2009). In 1998, the Graduate Review Committee was organized and responsible for evaluating and recommending accreditation status of post-certification graduate

athletic training education programs to the NATA Board of Directors (Standards &Guidelines, 2002).

In May 2002, the Graduate Education Committee created a revised edition of the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education.* This manual was created as a guide for college and university personnel interested in developing and/or maintaining a NATA accredited post-certification graduate athletic training education program (S&G, 2002). As of today, the former NATA Graduate Education Committee and the Graduate Review Committee became the Post-Professional Education Committee and the Post-Professional Education Review Committee, respectively (Sauers, 2007). The Post-Professional Education Committee and Post-Professional Education Review Committee are now responsible for examining the needs of post-professional education in athletic training (Sauers, 2007).

The Post-Professional Education Review Committee needs to ascertain whether the NATA-accredited post-professional athletic training education programs are upholding the minimum standards described within the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education.* In order for the Committee to do this, each program must submit an annual report, which includes information about attainment of program goals, instructional curricular effectiveness, and student achievement. The *Standards and Guidelines for Post-Certification Graduate Athletic Training Education* outlines criteria to assess graduate education programs such as: student performance in classes, student outcomes, graduation rates, publication of student works, presentations by alumni and job placement reports (S&G, 2002). Outcomes information must be used for annual reviews, and should be utilized by the program to

determine what areas need modification and if the short and long term goals and objectives are being met, with the goal of improving overall effectiveness in mind (Carr, Swann, & Frey, 2009). This information should be used to make adjustments to program objectives to ensure that the desired outcome is attained (S&G, 2002). Therefore, improvement is dependent upon ongoing data assessment and should be used in planning program improvements (Carr, Swann, & Frey, 2009). Programs are collecting information from student assessments for self-study purposes, however this information is often never disseminated to the public or even within the program itself (Henry et al, 2009).

Student outcome assessment can be conducted through formative or summative means. The formative assessment is conducted to provide feedback for program improvement, while summative assessment is conducted in order to judge the quality of the program based on the established standards (Tippett, 2006). The fact that these outcome measures are not shared makes it difficult to assess the quality of these education programs. Gard, Flannigan & Cluskey (2004), discuss the importance of taking outcome measures and disseminating the knowledge, not only within the institution, but also to external groups that may find the information important. It is not enough to simply collect the data, analyze, and store it; it is important to report the results to faculty, administrators and others who have contributed to the process as these groups play a vital role in the feedback loop and thus contribute to the revision of the education program. In addition, this information may need to be shared with state boards and other relevant accreditation agencies. Reporting data through local, regional, and national publications and presentations is important because it may facilitate changes to the

education programs and provide a service to the profession by providing motivation to change other educational programs (Gard, Flannigan &Cluskey, 2004). Lastly, they discuss how alumni newsletters, websites, and e-mails can be used to keep graduates informed. Since alumni are often asked to provide feedback and information about the program, it is crucial to communicate with them how their contributions are used and valued (Gard, Flannigan &Cluskey, 2004).

In Athletic Training education, as well as in other professions, there is no universally accepted assessment tool to allow easy comparison amongst programs or collect data over a period of time (Carr, Rockwell, Gardner, & Swann, 2006). The Online Assessment of Athletic Training education (OOATE) system was created in hopes to provide a more universal assessment tool for professional education (Carr, Rockwell, Gardner, & Swann, 2006). The system serves two purposes: first is assessment of student achievement in the 12 knowledge domains identified by the National Athletic Trainers' Association Education Council (NATA-EC) and the second is to provide a student assessment of satisfaction and importance of their individual degree program (Carr, Rockwell, Gardner, & Swann, 2006). This tool allows educators and administrators to better evaluate their programs and student progress and also provides a continuous assessment of the program. Although this program was originally created for professional athletic training education programs, the nature of the tests and reports that were created are easily applicable to other degree programs (Carr, Rockwell, Gardner, & Swann, 2006), such as Post-Professional Athletic Training Education Programs (PPATEPs). This tool could prove to be helpful in PPATEPs since it is possible to select peer schools for outcome comparison; not only would program directors be able to

examine their programs outcomes but they would be able to see how they compare to other PPATEPs. The OOATE has the ability to be quickly adapted to changes in domain knowledge and education content, reduce cost to users when compared to alternative tools, and the ability to be customized for a particular institutions needs (Carr, Rockwell, Gardner, & Swann, 2006).

The use of outcome assessments tools, like the OOATE, could prove to be helpful because at this time a very limited amount of information exists regarding components of Post-Professional Athletic Training Educational programs. Henry, Van Lunen, Udermann, &Oñate (2009) surveyed 2005-2006 graduates of the 12 post-professional athletic training education programs concerning their curricular satisfaction levels in relation to their respective programs. The survey questions were derived from the 2002 *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* and examined depth and breadth of learning, critical thinking, instructor availability, theoretical basis of learning, writing skills, scholarly growth, desire to disseminate knowledge back into the community, and preparation for leadership roles (Henry et al, 2009). The researchers hypothesized that the graduates would be more than 80% satisfied with every aspect of their respective graduate programs. The results showed that none of the 10 standard areas achieved mean percentages of 80% satisfaction or higher. The areas of highest mean satisfaction scores were critical thinking, overall curricular satisfaction, and depth of learning. Whereas the lowest were breadth of learning, desire to return and disseminate knowledge into the community, and theoretic basis of learning (Henry et al, 2009). Information provided by Henry et al (2009) serves to explain the curricular satisfaction of PPATEP students, however these authors did not

examine satisfaction with the clinical education component of a PPATEP. Given the immense importance of clinical education in the advancement of skills and knowledge (Jarski, Kulig, & Olson, 1990) it is crucial that the experiences are designed to be most effective in professional preparation of the students (Giberson, Black & Pinkerton, 2008). Examining student opinions and determining student satisfaction with their clinical education and experiences in PPATEPs is essential. Giberson, Black & Pinkerton (2008) suggest that student satisfaction with their clinical experience is not only important to gain necessary skills but also to build confidence and satisfaction with their choice of profession. This confidence and satisfaction could in fact be influenced by whether or not the students have a positive or negative experience. Therefore it is absolutely crucial that we begin to make strides in this area.

Statement of the Problem

The purpose of this study was to identify the clinical satisfaction levels of 2009 and 2010 graduates from NATA-accredited PPATEPs. Secondly, we sought to determine the differences in satisfaction levels between students from different types of programs. More specifically, we examined students who experienced different supervision levels, varying contact time with clinical staff, and average hours spent at clinical sites per week.

Null and Research Hypotheses

1. PPATEP graduates will neither be satisfied or dissatisfied with their post-professional graduate athletic training education program's overall clinical education plan.

RH1: The 2009-2010 graduates of NATA-accredited PPATEPs will be at least very satisfied with their overall clinical education plan.

2. The various clinical attributes (amount of autonomy, direct contact time with the clinical supervisor, and percentage of time performing athletic training duties) will not predict clinical satisfaction scores.

RH2: *a.* Graduates that had a more autonomous clinical experience will report higher satisfaction scores.

b. Graduates that had more contact time with their clinical supervisor will report higher satisfaction scores.

c. Graduates who spent a greater amount of time actively performing athletic training duties will report higher satisfaction scores.

3. There will be no difference in clinical satisfaction scores between those graduates who completed 20 or less hours per week in their clinical experience and those who completed more than 20 hours per week in their clinical experience.

RH 3: Graduates who completed more than 20 hours per week in their clinical experience will report higher clinical satisfaction scores.

4. There will be no relationships between:

a. Opportunities that were compatible with credentials and expertise and the percentage of time spent performing athletic training duties

b. Effective learning opportunities and the percentage of time spent actively performing athletic training duties

c. Effective learning opportunities and the amount of clinical autonomy

d. Formal and informal feedback about performance during the clinical experience and amount of direct contact with the clinical supervisor

e. Mentorship received from the primary clinical mentor and amount of direct contact with the clinical supervisor

RH4. *a.* There will be a positive relationship between opportunities that were compatible with credentials and expertise and the percentage of time spent actively performing athletic training duties

b. There will be a positive relationship between effective learning opportunities and the percentage of time spent actively performing athletic training duties

c. There will be a positive relationship between effective learning opportunities and the amount of clinical autonomy

d. There will be a positive relationship between the formal and informal feedback about the performance during the clinical experience and amount of direct contact with the clinical supervisor

e. There will be a positive relationship between the mentorship received from the primary clinical mentor and amount of direct contact with the clinical supervisor

Independent variables

1. Autonomy level: (5 = All of the time, 4 = most of the time, 3= half of the time, 2= some of the time, 1 = none of the time)

2. Direct contact time with clinical: supervisor (5 = daily, 4 = 5 times/week, 3 = 3 times/week, 2 = once/week, 1 = less than once/week)

3. Percentage of time spent actively performing athletic training duties: (4 = 100% of the time, 3 = 75% of the time, 2 = 50% of the time, 1 =25% of the time)

4. Average hours per week at clinical site (Less than 20 hours/week, 20 hours or more/week)

5. Opportunities compatible with credentials and expertise: (5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = very dissatisfied, 1 = extremely dissatisfied)

6. Being provided with effective learning opportunities: (5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = very dissatisfied, 1 = extremely dissatisfied)

7. Formal and informal feedback about performance during clinical experience: (5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = very dissatisfied, 1 = extremely dissatisfied)

8. Mentorship received from primary clinical mentor: (5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = very dissatisfied, 1 = extremely dissatisfied)

Dependent variable

1. Perceived levels of satisfaction (Likert-scale format), as it relates to a specific area of the *Standards and Guidelines for Graduate Education* (rev. 2002) (5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = very dissatisfied, 1 = extremely dissatisfied)

Operational definitions

NATA – *National Athletic Trainers' Association (NATA):* The NATA is the professional membership association for athletic trainers and others who support the

athletic training profession. The mission of the NATA is to improve the quality of health care provided by athletic trainers and to advance the athletic training profession. (www.nata.org)

CAATE – *Commission on Accreditation of Athletic Training Education (CAATE): The* CAATE is the accreditation organization for professional Athletic Training Educational Programs. The Commission provides accreditation services to institutions that house Athletic Training degree programs and to validate that all accredited programs meet the minimum acceptable educational standards for professional Athletic Training education. (www.caate.net)

Post-Professional Graduate Athletic Training Education Program (PPATEP) – a program whose goal is to expand the depth and breadth of knowledge and skills beyond those required of entry-level athletic trainers. Students admitted to these programs must have passed, or be eligible to take, the BOC examination or hold an equivalent certification (e.g. Canadian Certified Athletic Therapist). These fifteen programs (as of 5-11-11) are accredited by the NATA. (S&G, 2002)

Clinical Education Plan: Term that refers to the student's formal clinical education and clinical experience.

Clinical education: The formalized clinical plan which encompasses a variety of experiences (journal clubs, grand rounds, physician rotations, clinical experiences, etc.) that involves progressive development of clinical skills and decision making.

Clinical experience: Informal learning opportunities during which your skills are actively applied with a patient population in a clinical environment (high school, college, industrial setting, etc.)

Autonomy level: The amount of independence the graduates were given during their clinical experience in regards to athletic training duties (i.e. administrative duties, evaluations, treatments).

Direct contact time with clinical supervisor: The number of times per week the graduate had directly interacted with their clinical supervisor.

Average hours per week at clinical site: The average number of hours per week that the graduate spent at their clinical placement.

Amount of time spent actively performing athletic training duties: The percentage of time that the graduates were actively performing athletic training duties (including taping, treatments, and evaluations) at their clinical placement.

Opportunities compatible with credentials and expertise: Advanced clinical experiences must allow for a level of responsibility compatible with the credentials and expertise possessed by the student and do not require personal supervision. These students have progressed to an appropriate level of competence and should be provided with opportunities to develop their administrative and decision-making skills during their clinical experience (S&G, 2002).

Effective learning opportunities: The institution must have a formal plan for organizing and structuring the clinical experiences that will insure effective learning opportunities for all students in the clinical aspect of the program (S&G, 2002).

Formal and informal feedback about performance during clinical experience: Formal feedback refers to the planned feedback that the graduates were given while informal feedback refers to unplanned feedback that the graduate received.

Mentorship received from primary clinical mentor: "To serve as a mentor, tutor; a person charged with the instruction and guidance of another." (Davis &Missasi, 2001)

Standard work hours/week: The number of work hours spent at the student's clinical experiences must be in compliance with institution, state, or federal laws and regulations. A maximum of twenty hours per week aligns with most institutional requirements for work-study programs.

Assumptions

1. The survey has established acceptable content validity, and reliability measures.
2. The survey is an accurate indicator of satisfaction levels.
3. One of the survey answer choices will accurately reflect the participants' feelings.
4. The survey is distributed to all of the possible participants in the survey pool.
5. The participants will make an unbiased decision on whether or not to participate in the study.
6. The participants will have a full understanding of the survey questions and how to respond.
7. The subjects will read the instructions clearly and will follow directions.
8. The respondents will answer the questions truthfully and without persuasion.

Limitations

1. The lack of ability to accurately obtain contact information on every graduate of a NATA-accredited post-professional program over the years surveyed within the study.

2. The subjects may not fully understand how to answer a question, due to language or content.

3. The survey administrators are unable to control for the environment in which the survey was taken, or to standardize the conditions and emotions that may influence the subject during the survey.

4. The survey respondent may not have access to the internet.

5. The time that it takes a respondent to complete the survey cannot be controlled.

6. The possibility that the respondents may not represent the views of the population accurately, as each institution is not guaranteed to be represented proportionately.

Delimitations

1. The participants were graduates from an NATA Post-Professional Graduate Athletic Training Education Program from 2009-2010.

2. Participants included those individuals that had an email address that could be located within the NATA directory or through a web search.

CHAPTER II

LITERATURE REVIEW

While research pertaining to post-professional athletic training education is limited it is essential to understand how it was formed, where it has been and where it is headed. Understanding the implementation of the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs (2002)* and its effect on the clinical education aspect of post-professional athletic training is especially important. By examining other health care professions, such as nursing and physical therapy, it is possible to explore ways to continue to grow and evolve in our educational programs.

History of Professional Athletic Training Education

The National Athletic Trainers' Association (NATA) was founded in 1950 with the purpose of building and strengthening the profession of athletic training through the exchange of thoughts, information, and methods of athletic training. Not long after the NATA was founded a number of events began to unfurl that led to the development of athletic training education programs (Delforge & Behnke, 1999). In 1955, the Committee on Gaining Recognition was created to develop a model curriculum for the professional preparation of athletic trainers (Delforge & Behnke, 1999). Athletic training education models at this time were very similar to physical education curriculums, therefore action needed to be taken to differentiate athletic training (Delforge & Behnke, 1999, Perrin, 2007). In 1959, the NATA approved the first athletic training curriculum model. During the 1960s, only a few colleges and universities responded to the call for athletic training curriculum development, nevertheless athletic training began to flourish in the late 1960s (Delforge & Behnke, 1999). Just ten years later, in 1969, the NATA Professional Education Committee was developed and the first undergraduate athletic

training programs were approved by the NATA. This committee would have the responsibility to oversee athletic training education program development, reviewing and revising coursework and clinical experience requirements for nearly 30 years.

During the late 1970's, the NATA Professional Education Committee began to realize that the higher level of expertise expected of athletic trainers meant that inevitably there had to be educational programs that would include more topics that had more specific content, such as anatomy, physiology, first aid, and basic athletic training. As a result, in June of 1980, the NATA Board of Directors declared that all NATA-approved undergraduate athletic training education programs would offer a major in athletic training. All of the aforementioned accomplishments paved the way for what is known as one of the greatest milestones in the growth of athletic training. This accomplishment occurred in 1990, when the American Medical Association (AMA) formally recognized athletic training as an allied health profession (Delforge and Behnke 1999). This was the first step necessary in seeking accreditation of entry-level athletic training education programs by the AMA Committee on Allied Health Education and Accreditation (CAHEA) (Delforge & Behnke, 1999). Also in 1990, the Joint Review Committee on Education Programs (JRC-AT) was formed and asked to develop standards and guidelines to govern JRC-AT review and CAHEA accreditation of entry-level programs (Delforge & Behnke, 1999). Eventually, CAHEA was disbanded and the Commission on Accreditation of Allied Health Education Programs (CAAHEP) was formed as the accredited agency for educational programs in the allied health professions (Delforge & Behnke, 1999).

In 1994, the NATA Board of Directors created an Education Task Force to address educational issues (Delforge & Behnke, 1999). The 45-member council was appointed by the Board of Directors to set in motion a quality control model, which focused on the educational preparation of the athletic trainer. Now that the Education Task Force was charged with ensuring quality control in education, they had to address the routes of becoming an athletic trainer. Up until 1998, there were two predominant models of education, which were acceptable preparation for the National Athletic Trainers' Association Board of Certification (NATABOC) examination, the curriculum route and an internship route (Delforge & Behnke, 1999). The problem with having more than one route was the lack of standardization in the educational programs which educated athletic trainers (Peer and Rakich 2000). In June 1998, the BOC discontinued completion of a NATA-approved graduate program as a route to a national certification. The only route to BOC certification, at that time, would be completion of a CAAHEP-accredited entry-level program (Delforge and Behnke 1999). This decision made it so that only the students who had completed the requirements to take the BOC examination were accepted into NATA-approved graduate programs (Delforge and Behnke, 1999). In 1996, the NATA Board of Directors adopted a few recommendations proposed by the NATA Education Task Force. One of these recommendations was that by 2004, the internship route to BOC certification should be discontinued.

As of June 2006, the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) became independent from the Committee on Accreditation under the Commission on Accreditation of Allied Health Educational Programs (CAAHEP) and changed its name to the Commission on Accreditation of Athletic

Training Education (CAATE) (BOC, 2009). The purpose of the CAATE is to develop, uphold, and encourage appropriate minimum standards of quality of entry-level Athletic Training education programs (CAATE: standards for the accreditation of entry-level athletic training education programs, 2008). Completion of a CAATE-accredited program is currently the only route to take the BOC examination. Athletic training has evolved in professional education, and has grown from just four NATA approved undergraduate athletic training education programs in 1969 to over 350 professional undergraduate programs accredited by the CAATE in 2011.

Education in Professional Level Athletic Training Programs

One of the greatest challenges for any professional education program is to prepare students to be professionals who are competent in independent and critical thinking, who can analyze and solve dynamic problems, who can quickly understand problems, and are capable of working as part of a team (Heinrich, 2002). Competency-based education is utilized because it has clear, defined standards and it can be used to measure what an individual can demonstrate. It is important because it helps the students and educators in understanding specific skills and knowledge that should result from learning experiences (Jones, Voorhees, & Paulson, 2002). Another reason to implement a competency- based curriculum is that specific competencies provide direction for designing learning experiences and assignments that will assist students in using and applying these competencies in different contexts (Jones, Voorhees, & Paulson, 2002). In more advanced levels of education, this approach can be used to help the student grow from a novice-clinician to a more advanced clinician (Weidner & Henning, 2002).

Currently, professional athletic training education programs are mandated to follow the guidelines mandated in the 5th edition of the Athletic Training Education Competencies created by the Professional Education Council (PEC). The object of these competencies is to provide educators with the knowledge, skills, and clinical abilities that must be mastered by students enrolled in professional athletic training education programs (ATEPs) (Athletic Training Education Competencies, 2011). Mastering these skills signifies that the entry-level athletic trainer has the capacity to provide their services to patients of varying lifestyles and ages (Athletic Training Education Competencies, 2011). The CAATE requires that these competencies be taught, as well as evaluated in each ATEP. The competencies serve as a document that should be viewed alongside the accreditation standards, which identify the requirements that need to be met in order to acquire and maintain accreditation (Athletic Training Education Competencies, 2011).

These competencies are minimum requirements that each ATEP must meet but these programs are encouraged to go beyond these minimum requirements to ensure that they are providing their students with the highest quality education possible. It is expected that each program works to create and seize opportunities to connect what is learned in the classroom and laboratory with what is seen in the clinical setting, thus further enhancing the professional preparation of the student (Athletic Training Competencies, 2011). It is essential that programs address certain knowledge and skills in formal classroom and laboratory experiences. It is also essential that these educators realize that learning opportunities are everywhere. Seizing these opportunities and allowing for a cycle of learning, feedback, refinement, and more advanced learning,

especially in real life applications, readies the student for opportunities to demonstrate decision-making and skill integration ability (Athletic Training Competencies, 2011).

Kutz & Scialli (2008) state that since there are a few different levels of athletic training education (professional, entry-level masters, post-professional masters, and athletic training doctoral programs), there may be a slight confusion of the skills that each person possesses. To help address this issue, Kutz and Scialli (2008) came up with a competency-based, curriculum development model that can be utilized in athletic training education and takes into account perceived differences between the four types of athletic training education. The models that they created are important, because they are meant to help educators learn and understand the best method of reform and teaching in athletic training education. What is taught in the classroom is directly related to clinical education and how and when students use what they've learned in their clinical education. It is important to understand the strengths and weaknesses of any teaching method if there are plans to improve the learning outcomes (Shellhase, 2008).

Outcomes information must be used for annual reviews, and should be utilized by the program to determine what areas need modification. The programs should also use this information to determine if the short and long term goals and objectives are being met, with the goal of improving overall effectiveness in mind (Carr, Frey, & Swann, 2009). This information is useful to make adjustments to program objectives to ensure that the desired outcome is attained (S&G, 2002). Therefore, improvement is dependent upon ongoing data assessment and should be used in planning (Carr, Frey, & Swann, 2009).

History of Post-Professional Athletic Training Education

During the time of growth in undergraduate athletic training education programs, graduate athletic training education programs began to form, although the first one was not approved until 1972 (Delforge & Behnke, 1999). In 1997, the Graduate Education Committee of the NATA Education Council was asked to evaluate and revise the graduate standards and guidelines. Then, in 1998, the Graduate Review Committee was organized and asked to evaluate and provide recommendations for accreditation status of post-certification graduate athletic training education programs (S&G, 2002). The establishment of standard requirements for graduate education was important, because it was the first time that a distinction was made between professional (entry-level) programs and post-professional (graduate) programs. In 2002, the Graduate Education Committee revised the *Standards and Guidelines* that all NATA-accredited Post-Professional Athletic Training Education Programs (PPATEPs) were mandated to follow (S&G, 2002). By 2007, 13 post-professional degree academic programs were accredited by the NATA and at least 12 universities marketed doctoral programs specifically for athletic trainers (Perrin, 2007). Currently, there are 15 NATA accredited graduate programs, and post-professional education now includes the potential to have an accredited athletic training residency.

Education in Post-Professional Athletic Training Education Programs

As mentioned earlier, in 2002, the Graduate Education Committee released an amended document, *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs,* which all NATA-accredited graduate curriculums are mandated to follow (S&G, 2002). This document states that the mission of these post-

professional athletic training education programs must be to expand the depth and breadth of the applied, experimental, and propositional knowledge and skills of entry-level certified athletic trainers (S&G, 2002). A student's body of athletic training knowledge should be expanded and they should disseminate this new knowledge in the discipline. These post-professional programs should prepare athletic trainers for leadership roles and should provide research experience (S&G, 2002). Students should be exposed to advanced educational experiences that enhance their ability to function in clinical, teaching, administrative, or research environments (S&G, 2002).

The purpose of post-professional education is to provide a formalized didactic and clinical education beyond entry-level knowledge (Sauers, 2007). Post-professional education involves formal long-term experiences that may lead to an advanced degree, residency training, or a chance to sit for a specialty exam (Hunt, 2006). These opportunities that are presented by post-professional education are extremely important, because they are directly linked to the future of the profession. The education task force believed that a strong emphasis on post-professional education would guarantee that future athletic trainers have the knowledge and skills that are essential for advanced clinical practice, research, and scholarly contributions (Hunt, 2006).

As the profession of athletic training grows, it is important to reevaluate the athletic training education programs and the standards that guide minimal competence. To address this, the NATA's Post-Professional Education Committee formulated the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs*. These standards and guidelines emphasize the attributes that are most important to post-professional graduate education. The *Standards and Guidelines* may

prove to be very meaningful to athletic training education if the guidelines correspond with educators' concepts of quality education (Seegmiller, 2006). Education in advanced skills and knowledge, preparation of athletic trainers for leadership roles, and experience in research are deemed to be the distinctive characteristics of post-professional athletic training education in athletic training (S&G, 2002). Advanced educational experiences designed to further develop an athletic trainer's capacity to function in clinical, teaching, administrative, or research environments are also considered to be crucial components of PPATEPs. Although there are clear goals and objectives of post-professional athletic training education, minimal graduate courses and requirements are specified in the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* in order to encourage flexibility in curricular development. Since there are minimal guidelines and ample freedom in program design, it is essential that the programs are able to demonstrate their contribution to advanced education of athletic training practitioners (S & G, 2002).

The curricular aspect of post-professional education was examined by Henry, Van Lunen, Udermann, & Oñate (2009), who conducted a survey to assess curricular satisfaction levels of National Athletic Trainers' Association-Accredited Post-professional Athletic Training Graduates from 2005-2006. The survey questions were derived from the 2002 *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* and examined the depth and breadth of learning, critical thinking, instructor availability, theoretical basis of learning, writing skills, scholarly growth, desire to disseminate knowledge back into the community, and preparation for leadership roles (Henry et al, 2009). The researchers hypothesized that the graduates

would be more than 80% satisfied with every aspect of their respective graduate programs. They found was that none of the 10 standard areas had means of 80% satisfaction or higher. The areas of highest mean satisfaction scores were critical thinking, overall curricular satisfaction, and depth of learning. Whereas the lowest were breadth of learning, desire to return and disseminate knowledge into the community, and theoretic basis of learning. Although the graduates did not have satisfaction scores of 80% or higher, it is important to remember that each program is unique in its own way and focuses on different areas, so their satisfaction may be difficult to accurately assess.

To determine what athletic training educators perceived to be of importance in post-professional education, a group was asked to complete a survey based on perceptions of quality education for post-professional graduate education (Seegmiller, 2006). Questions pertained to what qualities they felt were important to the *Standards and Guidelines* (2002). Responses showed that the greatest contributors to program quality were ample number of qualified faculty and a sufficient number of qualified athletic training staff and other allied health personnel. Other responses that were considered to be some of the greatest contributors to program quality were the program director's strong academic orientation, as well as, their interest in student professional preparation, goals, and objectives that are related to enhancing students' critical-thinking skills. Most importantly, courses should not reiterate what was taught as an undergraduate but build on the current knowledge and provide students with advanced knowledge and skills (Seegmiller, 2006).

Seegmiller (2006) also hoped to identify characteristics reflecting quality in a post-certification graduate education programs (PCGE) by examining thoughts as

perceived by athletic training educators. Analysis indicated that the characteristics that were most important were curriculum, research, faculty and clinical experience, respectively. Curriculum was the most important to respondents. Areas of importance for research were research based education, faculty-directed research, and quality student research projects. Wilkerson, Colston, & Bogdanowicz (2006) believed that regardless of the differences in students' knowledge and clinical skills upon admission, professional education programs in athletic training and post-professional education programs in athletic training should both highlight the significance of research for clinical decision-making and development of new knowledge within the discipline. The third most important factor was faculty and administration. Areas that were found to be important for faculty and administration were an adequate number of qualified and scholarly faculty members, quality instruction, and student mentoring. Clinical experience was the final identified area of importance and included opportunities for independent clinical experiences, diversity of clinical settings, and enhancement of clinical skills (Seegmiller, 2006). Carr, Swann, & Frey (2009), conducted a survey which collected satisfaction and importance scores for certain variables in entry-level athletic training education programs. The main purpose of the study was to examine the effect that different universities and demographics had on student satisfaction. The students were given a survey, which used a Likert scale to indicate whether they were "very satisfied" through "not satisfied at all" for specific variables. The authors mention finding that students were more satisfied with instructor availability than other factors, that quality of instruction in the major, and quality of clinical experiences were rated higher than other factors. It

seems that the students were more concerned with the teaching than anything else (Carr, Swann, & Frey 2009).

Clinical Issues in Professional Athletic Training Education

Historically, clinical education in the allied health professions has evolved from the medical-education model for training physicians (Weidner & Henning, 2002). This basic concept has guided clinical education in the health professions over the past century. Today, just like in earlier years, allied health care students begin to acquire their clinical skills at the patient's side, usually in a hospital or outpatient-based clinic (Weidner & Henning, 2003). Although athletic training historians state that athletic training curriculum development began in the 1950s, clinical education in athletic training did not formally begin taking shape until the 1970s. As clinical education evolved, a clinical hour requirement and a skill-competency checklist were created to direct and supervise the development of the students' clinical skills (Delforge and Behnke, 1999). Considering the importance of this topic, an awareness of and appreciation for the past and future of clinical education is valuable for all that are involved in clinical education (Weidner, & Henning, 2003).

There are numerous different education models that have been researched for use in athletic training education, such as the medical-education paradigm and the competency-based instruction and evaluation model (Weidner & Henning, 2003). An overview of several of these education models may help athletic training educators to find a common link that most find important to the further development of athletic training education within the clinical realm. Starkey (1997) believed that the clinical education model should be based on a set of "measureable, standardized, and referenced

learning objectives" (Starkey, 1997, pg 114) that are of the same nature of experiences that the student will have in reality. Radtke (2006) suggested that after the development of the *Clinical Standards and Guidelines*, the next step of the profession should be to align athletic training education with other allied health care professions like nursing and physical therapy. We should shift our mind frame to see the athletic training student as a learner. Radtke (2006) believes that developing students into effective clinicians should be a top priority in this profession. So much emphasis has been put on skills and clinical development that sometimes the fact that these skills are not actually being used in everyday practice is overlooked. It is said that there is an underlying assumption in professional athletic training education that the skills and knowledge that are learned in the classroom are recalled and used appropriately in the clinical setting (Radtke, 2006).

One of the biggest challenges with clinical education at the professional level is taking what the student has learned and having them apply it to real world situations. Clinical decision-making involves analyzing a situation, determining needs, and then deciding on a course of action that will meet the needs (Knight, 2006). A sufficient knowledge base is essential to establish needs and decide on appropriate action. The greater the knowledge base, in turn, the greater the possibility that the clinical decision will lead to faster and more complete resolution of the problem (Knight, 2006). It is proposed that like clinical education, the more effective the classroom instruction, the better the clinical decision-making will be, and the better the health care for the patient. However, all of the knowledge in the world is of no value if it cannot be applied. Therefore, without appropriate clinical education, much of the classroom education is wasted (Knight, 2006). These ideas are important to the growth of better outcomes in

clinical education and important to the educators who work with the students daily. Experience has demonstrated that not every person who is an athletic trainer should be a clinical supervisor, but sometimes this fact is overlooked (Toburen, 2002). Unfortunately, the clinical experience may be compromised if the student is working with an athletic trainer that has little interest in working with students or has little understanding of learning styles. To ensure that students are gaining the education and experience that they should, it is necessary for the educators to understand individual learning styles, evaluation techniques, and ways to enhance critical thinking (Toburen, 2002). In order for this situation to be addressed, some suggest that we "educate the educator" (Starkey, 1997).

There are several reasons why these aforementioned factors may be of such importance. Scriber & Trowbridge (2009) address some major obstacles that employers are facing when hiring young professionals. These challenges include a belief that students and young professionals, part of the Millennial student generation, are not exhibiting the professionalism and career readiness of past generations. Monaco & Martin (2007) discuss the new generation of students and how they may not possess the characteristics of athletic training students in the past. They report that these Millennial students have some of the following notable characteristics: lack of professional boundaries influenced by socialization, a need to have immediate feedback, a sense of entitlement, lack of critical thinking skills, unrealistic expectations, high level of parental involvement, and an expected "how to" guide to succeed in and out of the classroom (Monaco & Martin, 2007). These Millennial students differ from those students of the past, because they have different expectations. They have become accustomed to hand

holding and need assistance in developing independent thinking and decision-making skills (Monaco & Martin, 2007), which are key components of the student's clinical education. Numerous ways for instructors to help these students better succeed are discussed, including using "real-time" feedback and increased contact time between students and instructors (Monaco & Martin, 2007). It seems, in order for instructors to help these students grow and increase their proficiency some changes need to be made.

Levy et al. (2009) spoke of supervision in athletic training at the professional level. It is believed that athletic trainers supervise their students in a similar way to how they were supervised as students. Circumstances like this can create an environment of inconsistency and may cause students to not develop professionally as they move throughout their program under the supervision of numerous supervisors. To address this potential problem, Levy et al. (2009) reference a Situational Leadership model explained by Blanchard et al. (1985) that may be applied to athletic training students. The model was created to apply to managerial supervision over their employees; in this model the managers supervise employees according to the worker's skill level, as well as how long the worker has been employed (Schermerhorn, 1997). There is a direct correlation between using this as an employer and as a supervisor to a student, not to say that we should use students as employees, but because all those who are learning need some type of feedback or direction at one point or another. All of the components of this situational leadership model could be a step in the right direction to ensure that students are being given feedback and direction when they need it the most.

Stemming off of the topic of the situational leadership model are some concepts that Scriber & Trowbridge (2009) have come up with when dealing with clinical

supervision. Through informal conversation and reflection with graduates from the authors' programs and peers, they found two ways that were most effective for learning. The researchers colleagues, graduates and faculty members revealed that the two ways they learned the most was during experiences with a clinical instructor or mentor and also when they were essentially unsupervised (Scriber & Townbridge). Fowler (2008) discusses a concept that was developed by a man named John Dewey in the 1930s, which affirms that learning happens best when clinical experiences and thoughtful reflection collide. Many disciplines, including nursing, medicine, and physical therapy have adopted this model by putting an emphasis on the combination of clinical experience and reflection to facilitate learning (Fowler, 2008). What this model of learning requires is the student to be afforded the opportunity to meaningfully reflect on their experiences with some type of mentor or supervisor so that they can be better prepared for the future. It is important that this responsibility be shared between the student and the instructor so that the student may gain a sense of ownership over their education and that there is this sort of guided autonomy. Fowler (2008) informs us that when there is no reflection, there is only surface learning, but when there is deep reflection there is deep learning. What this indicates is that self-reflection, such as journals or blogging, and interactions between the student and instructor should be a required component of clinical education (Scriber & Trowbridge, 2009).

As discussed by Fowler (2008) and Scriber & Trowbridge (2009) having an instructor as part of the processes of learning and development in athletic training students is critical. Sexton et al. (2009) also reported on supervision in professional level athletic training, but what makes these researchers different from others is that they

discuss the terminology utilized by most in the athletic training profession. They suggest using the term "mentoring" instead of "supervising," because it better explains the interaction that should be occurring between student and instructor in clinical education (Sexton et al. 2009). A mentor is a person who is to provide guidance for another and that is exactly what all students need.

In athletic training, as in most allied health professions, clinical instructors (CIs) act as teachers and role models for students. Not only are CIs responsible for teaching clinical skills but also teaching and demonstrating leadership and professional skills (Platt Meyer, 2002). Also, CIs prepare students to be competent professionals through teaching and reinforcing skills like professional development and clinical skills (Andersen, Larson, & Luebe). These are just a few reasons it is important for CIs to develop and possess certain skills and personality traits. A few studies have been completed in athletic training that examine traits and characteristics that CIs should possess in order to be efficient mentors and teachers (Weidner & Henning, 2004; Curtis, Helion, & Domsohn, 1998). In 2004, Weidner & Henning, along with a number of athletic training education experts employed as program directors of professional programs, put together a list of seven standards that they believed CIs should meet. These ideal seven standards that the CI should possess included: legal and ethical behavior that meets expectations of others in the profession, effective communication skills, appropriate and professional interpersonal relationships, effective instructional skills, effective supervisory and administrative skills, effective evaluation of performance, clinical skills and knowledge of athletic training students (Weidner & Henning, 2004). Other studies have shown that not only do educators feel that these are essential traits, but students think so, too. Curtis,

Helion, & Domsohn (1998) asked students to report helpful and hindering incidents with their CIs. The authors were able to classify responses into four categories: mentoring, professional acceptance, nurturing, and modeling. Students reported that mentoring behaviors that were helpful were demonstration, good explanations, and constructive feedback, because these added to their professional knowledge base and enhanced their performance in the clinical setting. Mentoring behaviors that they found hindering were the unavailability of CIs and missed learning opportunities. Something else that students found helpful was acknowledgement from their supervisors because this set a positive tone. They felt that poor interaction style (i.e., a negative attitude) was hindering to their experience. Nurturing characteristics that students found helpful were positive responses and supportive behavior while criticism in front of others was found to be hindering. Lastly, when it came to modeling, students only reported hindering incidents and this was when CIs had poor job performance, such as acting unprofessional (Curtis, Helion, & Domsohn, 1998).

Laurent and Weidner (2001) reported on characteristics that students and CIs felt were helpful for their experience and some that they felt were not so helpful. Some of the traits that students from the Curtis, Helion, &Domsohn (1999) found helpful were repeated in this study. These students also felt that it is important for CIs to respect the student, demonstrate skills for students, discuss practical application of knowledge and skills and remain accessible to the student (Laurent & Weidner, 2001). Other helpful characteristics that were reported were CIs giving students the opportunity to practice technical and problem-solving skills, communicating what is expected of the student and listening to what the student has to say. The majority of the characteristics that students

did not find especially helpful were related to challenging the student to explore the literature in the field and whether or not their CI was involved in research.

Factors Effecting Satisfaction Within Clinical Education

There are numerous demographic characteristics that researchers believe may have an effect on satisfaction levels. When examining satisfaction levels in nursing students, Norman et al. (2005) found that there were minimal differences in the level of satisfaction based on age, type of nursing education program, and minority status. Norman, Buerhaus, Donelan, McCloskey, & Dittus (2005) suggest that students who were enrolled in clinical courses reported that they were very satisfied with their education compared with those students who had not yet enrolled in clinical courses. It was also suggested that older students were more dissatisfied with their nursing education than were the younger students (Norman, Buerhaus, Donelan, McCloskey, & Dittus, 2005). This dissatisfaction was most likely due to the fact that, when assessing the quality of their clinical education, some of the nursing students questioned the number of hours and depth of clinical practice time that they obtained and perceived a sort of disconnection between the nursing roles that they were being taught and what they observed at their clinical sites. Some nursing students felt that their programs consisted of too much "busy work" while others felt that they were functioning as assistants rather than nurses and were thus felt that they were not developing real nursing experiences (Norman, Buerhaus, Donelan, McCloskey, &Dittus, 2005). Some students described feeling that their mentors were "unconcerned about students' progress" and "insensitive to their needs." It seems that several students questioned whether or not their professors had recent clinical experience, because they worried that the professors may not be up to

par on current hospital realities (Norman, Buerhaus, Donelan, McCloskey, & Dittus, 2005).

Clinical education is also a crucial component to an athletic training student's growth in education. It is the segment of the curriculum in which the theoretic and practical educational components are incorporated into real-life situations with actual patients (Jarski, Kulig, & Olson, 1990; Espeland, & Indrehus, 2003). Clinical education in athletic training, as well as in many other allied healthcare professions, depends upon clinical experiences as a pivotal component of student learning.

Clinical education is a major component of the nursing curriculum. In order for nursing students to practice safely, it is imperative that they have developed not only the theoretical knowledge on which they base their care but also the practical application skills that are required to utilize this knowledge (Dunn, & Hansford, 1997). According to Dunn and Hansford (1997), the relationship between students' attitudes and their perceptions of the clinical learning environment is important to nursing students. The relationship between student satisfaction and their perceptions of the clinical learning environment is two-fold. It seems reasonable to assume that student satisfaction is somewhat a result of a positive learning experience, and that the more satisfied student will be more likely to find further opportunities for a positive learning experience. Even though student satisfaction is related to the student's perceptions of the clinical learning environment, it is not fair to assume that this is the only important component. Dunn and Hansford (1997) suggest that it is reasonable to assume that the student's satisfaction is somewhat a result of a positive learning experience. The learning experience depends not

only on how teachers have designed and structured their courses, but also on how their students perceive and understand the design and structure (Espeland, &Indrehus, 2003).

With this being said, it is important to realize that student satisfaction is not the only type of satisfaction that should be assessed or construed as the only piece to the puzzle. Over the years, researchers have focused on the student's perception of classroom and clinical learning. However, some now wonder if this is the best way to evaluate athletic training education. Massie et al. (2009), assessed employer's perceptions of athletic trainers who had just graduated, been state licensed, or certified and were now employed in the clinical setting. They found that approximately 90% of the employers felt that their entry-level employees were prepared for the job both clinically and academically. In addition, a large number of employers believed that there were some components which the employees were unprepared for that could potentially only be learned by being in the workplace. The employers felt that the entry-level athletic trainer was best at risk management and immediate care and needed to develop further in the organization and administration field. The employers also expressed that these entry-level athletic trainers need to work on their interpersonal skills. The employers in the study rated their entry-level athletic training employees as "good," which meant there was room for improvement in certain areas of athletic training education. It is important to remember that educators are the backbone, not only of educational reform in athletic training, but also of the growth and development of the athletic training profession and its professionals (Weidner, 2006).

In both clinical practice and in the classroom, teachers assist students to accomplish a deeper understanding of the content and to make connections between

theory and experiences (Scanlan, Care, &Udod, 2002). Nursing students have been found to prefer the learning context of practical demonstrations and clinical studies to completely theoretical lessons (Cowman, 1995). It is believed that the behavior and attitudes of the professors may have somewhat of a result on the satisfaction of the students. Support of their clinical practice and challenging their clinical practice are two factors that have been found to be crucial when students are receiving supervision at a workplace (Espeland, &Indrehus, 2003). Support is important because it is a way of letting the students know that someone cares about them. Challenging students is essential, because it puts pressure on them, which causes them to examine their decision-making and processes. Espeland and Indrehus (2003) have found that overall students were dissatisfied with their nursing program as a whole. On the other hand, it was found that they were generally satisfied with the clinical practice experiences.

The clinical experience is also a major piece of the physical therapy curriculum. This is such an important component, because this is where students learn behaviors that influence their lifetime professional performance and improve their professional physical therapy services (Jarski, Kulig, & Olson, 1990). A clinical experience is meant to promote and help ensure a positive and constructive experience so that appropriate skills and behaviors for future professional practice are learned and used (Jarski, Kulig, & Olson, 1990). Jarski et al (1990) convey that according to physical therapy students some of the most helpful behaviors for learning are when instructors take time for discussion and questions, when they answer questions clearly, and when they provide the opportunity for students to practice problem-solving skills. Students did not like when

instructors questioned them in an intimidating manner and corrected student's errors in front of patients (Jarski, Kulig, & Olson, 1990).

Beyond the realm of being able to provide adequate patient care it is essential that at the completion of their clinical experience, students be left with a foundation to build on. According to Strohschein et al (2002), the new generation of physical therapists are required not only to possess a solid foundation of clinical skills to succeed, but also an educational foundation that will enable them to build their profession as well as their personal practice. Cranton et al (1989) suggest that education in health care professions requires an interdisciplinary and holistic approach in order to completely address needs of the students as adult learners. Since physical therapy is not a profession where one is working in isolation, it is important for students to learn how to collaborate with peers (Triggs, Nemshick, & Shepard, 1996). It has been shown that collaborative learning enhances students' levels of clinical experience in areas like patient evaluation and professional behavior (DeClute, & Ladyshewsky, 1993). Lastly, Triggs, Nemshick, & Shepard (1996) believe that peer collaboration is closely linked with professional socialization. Collaborating with peers fosters independence because the student is less likely to depend on their supervisor. All of these factors are important because they play a vital role in the development of students during their clinical experiences. With that being said, it is safe to say that some of these factors may be directly linked to their clinical satisfaction.

Clinical Issues in Post-Professional Athletic Training Education

The *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* are meant to inspire thought and empower programs to create and

nourish programs around their unique strengths and points of distinctiveness (S&G, 2002). With this, it is expected that there will be a greater array in program design, content and focus amongst graduate programs than amongst undergraduate and entry-level programs (S&G, 2002). One of the areas in which these programs have an abundance of freedom is the organization of a clinical experience. According to the *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* (2002), clinical experiences are strongly recommended, but not a required, part of the program. If the program uses clinical experiences, then they must provide the opportunity for the athletic trainer to further develop their skills. It is important that the student has an educational clinical experience and it is not simply used as part of the work force system. Also, the institution must have a structured clinical experience to ensure learning opportunities, and there should be some way to record the student achievement. These clinical experiences at the graduate level must allow for a level of responsibility that is appropriate for the student and permits development of decision-making and administrative skills. The number of hours should be compliant with the regulations in place and should not interfere with classroom or research hours (S& G, 2002).

There are a few similarities between post-professional athletic training education and nursing residency programs. These similarities include the inclusion of a clinical education component, a mentor/mentee relationship, and the goal of further developing the student's knowledge. After spending some time reviewing models of residency education and training in other health professions, the Executive Committee for Education released the NATA Post-Professional Athletic Training Residency

Accreditation Standards and Guidelines, which include a set of athletic training post-professional competencies (NATA, 2010). Each PPATEP must provide evidence that these six competencies are rooted within their didactic and clinical curriculums. In addition, each program must provide a description of how each competency is incorporated within aspects of their clinical education, as well as, a description of how they are ensuring that each student has completed each competency. The competencies include: 1) patient-centered care, 2) interdisciplinary collaboration, 3) evidence-based practice, 4) quality improvement, 5) use of healthcare informatics, and 6) professionalism; all of which are meant to enhance patient care (NATA, 2010). Patient-centered care refers to the effort to clearly inform and educate patients in a compassionate manner. Shared decision-making between the patient and athletic trainer is emphasized, as well as, continuous advocacy for a healthy lifestyle. Interdisciplinary collaboration refers to the athletic trainer's ability to collaborate with other health professions to provide the best care for the patient. Evidence-based practice is the use of clinical expertise, patient values, and best available research to optimize patient outcomes. Quality improvement refers to the athletic trainer's ability to recognize the need for constant self-evaluation and life-long learning. The use of healthcare informatics refers to the athletic trainer's ability to use information technology to handle clinical data and access the most up to date evidence pertaining to the most advantageous patient care (NATA, 2010). Professionalism relates to the athletic trainer's adherence to the NATA *Code of Ethics* and the BOC *Standards of Practice*. It refers to the personal qualities such as honesty, accountability, patience and self-control and is exhibited through ethical behavior (NATA, 2010). All of these competencies are linked and need to be utilized in

athletic training in conjunction with one another to provide the best patient care possible. These competencies have also been adopted by Post-Professional Athletic Training Education programs and will be included within the newest version of the Standards and Guidelines.

Currently, there is no research exploring mentorship or supervision in clinical education at the post-professional level, so we cannot be sure that we are bettering students and helping them grow into the clinicians they have the potential to evolve into. In order to understand how these programs are bettering their graduates, we must ask the students who have graduated from these programs what worked and did not work for them.

Clinical Issues in other Post-Professional Healthcare Professions

Master's degrees, especially in the form of coursework master's programs, are becoming the main pathway for continuing professional education for healthcare professions, like nursing (Drennan, 2008). A survey created by Drennan (2008) aimed to discover whether or not nursing graduates perceived that their master's degree had an impact on their career development, to what extent they intended to pursue further education, and if this was just a means to an end and it is simply a stepping stone to getting a terminal degree (research doctorate). It was reported that following the completion of their master's program that over 50% of graduates were practicing in clinical nursing with about 25% indicating that they work in the area of nurse education. Also, the impact of the master's degree on promotions was determined to be influential with over 80% of those who had been promoted. Almost half of the respondents reported that their professional interests were mainly focused on clinical practice, with over 30%

indicating their interest was in clinical education and 10% indicating research or management was their main focus. From this study, it is evident that for nursing students, a master's degree is not just part of the pathway to a PhD but a "qualification in its own right that has a pivotal role in providing continuing education to the profession (Drennan, 2008, pg. 756)."

Other researchers (Cotterill-Walker, 2011) have been able to gather information to support the importance of postgraduate nursing study at the master's level. Based on a literature review in this study, it is apparent that there are positive gains for nurses who undertake this challenge that have been linked to professional and personal growth. This growth may in fact lead to an increased ability to positively influence patient care and thus improve patient outcomes (Cotterill-Walker, 2011). A cross-sectional study of graduate nursing students from part time, modular bachelor's and master's in nursing and midwifery programs aimed to determine if there were any practice changes in relation to gaining skills and knowledge (Hartwick & Jordan, 2002). The results showed that 37% of the respondents reported an increase in confidence in questioning decisions related to the provision of care. They also reported an increase in confidence related to providing evidence based care, with over half of the respondents indicating that their studies had motivated them to improve their care by changing the way they practice (Hartwick & Jordan, 2002). Other researchers (Armstrong & Adam, 2002; Pelletier, Donoghue, & Duffield, 2003) report similar findings, reporting that nurses who had received a postgraduate certificate felt they experienced an increase in knowledge, which allowed them to question treatments, plans of care, their own practice and become advocates for the patients. A few studies (Whyte, Lugton, & Fawcett, 2000; Ashworth, Gerrish, &

McManus, 2001) have identified role modeling and mentoring, as well as, leadership and management skills as areas of personal and professional growth following master's level study. Leadership decisions were reported to have developed due to the respondent's ability to critically analyze (Whyte, Lugton, & Fawcett, 2000) and increased "political awareness" resulting from course work was said to lead to changes in patient care. A large number of graduates also expressed that they felt they grew in respects to acting as a mentor (Pelletier, Donoghue, & Duffield, 2003), as well as, being used as a resource (Armstrong & Adam, 2000). These numerous studies provide evidence that there is much value in undertaking a postgraduate nursing education; this advanced knowledge allows the graduates to grow as clinicians and challenges them to provide better patient care than they ever have before.

Much like PPATEPs, nursing residencies are interested in improving the transition from the role of a student to a professional by laying a strong clinical foundation for a professional career (Williams, Goode, Krsek, Bednash, & Lynn, 2007). And just like PPATEPs, components of residency programs include a core curriculum, clinical guidance of a preceptor, and access to a resident facilitator who helps with professional role development and guidance (Williams, Goode, Krsek, Bednash, & Lynn, 2007). Several studies (Williams, Goode, Krsek, Bednash, & Lynn, 2007; Anderson, Linden, Allen, & Gibbs, 2009; Kowalski & Cross, 2010) attest to the value of nursing residencies. There is evidence that residents perceive that they grew in numerous areas that are necessary basics in providing quality patient care, including their ability to organize and prioritize, communicate, and provide clinical leadership (Williams, Goode, Krsek, Bednash, & Lynn, 2007). Graduates of these nursing residency programs also

discussed their feelings about clinical journaling assignments, which can be used as an evaluation tool in clinical education. Some perceived the journals as "busy work," while others found them to be a very helpful reflection tool. Journal topics directly related to clinical situations, such as patient rights, pain management, and service excellence were perceived to be helpful (Anderson, Linden, Allen, & Gibbs, 2009). In addition to these other measures, graduates reported feeling less anxious and more comfortable and confident after being a part of a nursing residency program. This may be due in part to the fact that they felt more supported by the nursing staff and preceptors during their residency program.

Summary

Since its beginnings, athletic training education has changed and evolved in both the professional and post-professional programs. There is a plethora of research pertaining to educational and clinical issues, as well as satisfaction levels in professional education but it is certainly lacking in post-professional education. It is important to take time to assess where post-professional education is headed and if these programs are meeting the standards to assist in advancing the profession. We can begin to assess the value of the current PPATEPs by collecting outcome measures and satisfaction scores of graduates in relation to their educational and clinical experiences. With this being said, we must also consider concepts of our professions and others like ours to better ourselves and move forward as a profession and as individuals.

CHAPTER III

METHODOLOGY

Participant Characteristics

All participants were recent graduates (May 2009-May 2010) of one of the sixteen NATA Accredited Post-Professional Athletic Training Education Programs. A survey was sent out to a total of 267 graduates, and 106 graduates completed the survey, yielding a response rate of 39.7%. Participants included 65 females (age = 24.91 ± 1.77 years) and 41 males (age = 26.05 ± 2.25). Fifty participants (47.2%) were graduates of 2009 programs, while the other fifty-six (52.8%) participants were graduates of 2010 programs. Prior to the survey being sent out to the participants, the study was approved by the University Institutional Review Board and participants implied consent by completing the survey.

Instrumentation

The researchers modified an online survey created by Henry, Van Lunen, Udermann & Oñate (2009), and utilized Inquisite 9.5 Corporate Survey Builder (Catapult System Corporation, Austin, Texas) to construct the new instrument, Points of Distinctiveness and Clinical Satisfaction in NATA Accredited Post-Professional Athletic Training Education Programs. Our survey was used to gather basic demographic information, and utilized questions to assess satisfaction with components of clinical education. Content validity was established by consulting three experts in post-professional athletic training education and changes were made based on the feedback provided (Appendix C). The survey questions were all based on the main areas pertaining to clinical education that are outlined in the *Standards and Guidelines for*

Post-Certification Graduate Athletic Training Programs. Some of the questions pertaining to points of distinctiveness were formulated in part from another survey (A.T. Still University Alumni survey). The survey consisted of closed-ended questions which used a Likert Scale format with five scale choices, which included extremely satisfied (5), very satisfied (4), satisfied (3), very dissatisfied (2), and extremely dissatisfied (1). Other Likert scale questions were included in the survey in regards to autonomy and student contact time with their clinical supervisor. The scale for autonomy included response choices of: autonomous experience all of the time (5), most of the time (4), half of the time (3), some of the time (2), and none of the time (1). In regards to direct contact time spent with the clinical supervisor, the scale included response choices of: daily (5), 5 times/week (4), 3 times/week (3), once/week (2), and less than once/week (1). The open-ended questions asked participants to express any reason that they were not extremely satisfied with certain aspects of their clinical education, as well, as anything that they would have changed or added to their program. The survey instrument can be found in Appendix H.

Testing Procedures

A list of all of the graduates of the 16 programs from May 2009-May 2010 was obtained from the NATA Post-Professional Athletic Training Administrative Office. These individuals were contacted by email obtained from the NATA website. When the survey was sent out to the participants initially there was a problem with the survey link. The researchers sent out a correction letter to inform the participants that the survey link was being fixed and would be sent out again as soon as possible. The correction letter and second subject recruitment letter can be found in Appendices E and F, respectively.

Once the problem was resolved, each graduate received a letter via email that included the URL link for the survey, a short explanation of the importance of the study, the amount of time expected to complete the survey, and contact information for the researchers (Appendix D). A follow up email was sent once per week for four weeks following the initial email to thank those who participated and served as a reminder for those who may have not had a chance to complete it yet (Appendix G). After completion of the survey, all of the participants were given the option to request the survey results. Participants were also given the option to be entered in a drawing for the chance to win one of two 25-dollar gift certificates.

Data Analysis

Once the survey was completed and the participant clicked "submit" the information was automatically sent to the password protected University database system. Individual responses were generated in Microsoft excel format and then matched with a file coding system to maintain confidentiality of the participants. When the participant responses were received, the data was collected and analyzed with Predictive Analytics SoftWare Statistics (version 18.0, PASW Inc. Chicago, IL) for Windows to determine if there were any statistical associations. Descriptive statistics were collected and examined for each individual question of the survey. Ordinal logistic regression was used to determine predictors of satisfaction in different areas. Statistical significance was set *a priori* at $p \leq 0.05$.

Descriptive statistics were used to determine if the graduates were at least 80% satisfied with their overall clinical education plan. The ordinal logistic regression for time performing athletic training duties, amount of autonomy, and amount of direct

contact time with clinical supervisor was used to predict the graduate's satisfaction scores. A Mann-Whitney U test was used to determine if there was a significant difference between the number of hours spent at the student's clinical placement in respect to the overall satisfaction of the clinical education plan. A Spearman's correlation was used to examine if there was a correlation between the following: 1) percentage of time spent actively performing athletic training duties and opportunities that were compatible with credentials and expertise and; 2) with being provided effective learning opportunities; 3) the level of satisfaction with being provided learning opportunities and the amount of clinical autonomy participants had; 4) how often participants had direct contact with their clinical supervisor and the level of satisfaction with formal and informal feedback about performance during their clinical experience and 5) the level of satisfaction with the mentorship that participants received from their primary clinical mentor. As mentioned earlier, if a graduate choose anything but "extremely satisfied" for each question, they were asked to please explain why they felt that way. Examining the comments and opinions that graduates expressed through these text boxes after each question identified common themes.

CHAPTER IV

RESULTS

Demographic survey questions were analyzed using descriptive and frequency statistics. Means and standard deviations were reported for all demographic characteristics (Table 1). Descriptive statistics were also computed for all subjects in regards to numerous satisfaction areas related to the student's clinical experience (Table 2). Frequencies were reported for all questions specific to each close-ended survey question (Appendix A). Common themes were also identified from the open-ended questions relating to satisfaction in each specific area (Appendix B). The graduates reported being at least very satisfied with their overall clinical education plan (4.27/5.0±.911).

The ordinal logistic regression for time performing athletic training duties (χ^2 (6) = 6.71, p = .349), amount of autonomy (χ^2 (8) = 11.66, p = .167), and amount of direct contact time with clinical supervisor (χ^2 (8) = 10.36, p = .241) were not predictive of student's overall clinical satisfaction with their clinical education plan. Table 3 provides a summary of the regression statistics.

The number of hours spent at the clinical placement was divided into two groups. Group 1 consisted of 20 hours or less a week (n =15, 18.73±2.19) and group 2 consisted of 20+ hours a week (n = 91, 36.30±11.50). A Wilcoxon Rank sum test revealed no statistically significant difference (p = .142) between number of hours spent at the student's clinical placement and overall satisfaction of the clinical education plan. Table 4 includes a summary of the Wilcoxon Rank sum test results.

A Spearman correlation revealed that there was a weak positive correlation between how often the participant had direct contact with their clinical supervisor and

their levels of satisfaction with the formal and informal feedback they received about their performance during their clinical experience, as well as, a moderate correlation with the mentorship that graduates received from their primary clinical mentor. The values for both the significant and insignificant correlations can be found in Table 5.

CHAPTER V

DISCUSSION

Overall Clinical Satisfaction

Clinical experience is a strongly recommended, but not required, part of each PPATEP clinical education plan. If the program chooses to include clinical experiences, they must ensure that there are ample opportunities for the students to develop skills beyond entry-level competencies. The institution must have some type of formal plan for organizing and structuring the clinical experiences that will ensure effective learning opportunities for all students in the clinical aspect of the program (S&G, 2002). The plans for the clinical experience should allow for progressive development of skills and knowledge, as well as, a level of responsibility that is compatible with the student's credentials and expertise.

It was hypothesized that the 2009 and 2010 graduates from NATA PPATEPs would be at least very satisfied with their overall clinical education plan. Our findings support this hypothesis. Much like PPATEPs, nursing residencies intend to improve the shift from the role of a student to a professional by laying a strong clinical foundation (Williams, Goode, Krsek, Bednash, & Lynn, 2007). Also like PPATEPs, nursing residency programs include a core curriculum, clinical guidance of a preceptor, and access to a facilitator who helps with professional role development and guidance (Williams, Goode, Krsek, Bednash, & Lynn, 2007). Several studies (Williams, Goode, Krsek, Bednash, & Lynn, 2007; Anderson, Linden, Allen, & Gibbs, 2009; Kowalski & Cross, 2010) attest to the value of nursing residencies. There is good evidence that residents perceive that they grew in numerous areas that are necessary basics in providing quality patient care, including their ability to organize and prioritize, communicate, and

provide clinical leadership (Williams, Goode, Krsek, Bednash, & Lynn, 2007). After just one year of enrollment in a nursing residency, residents perceived that they were more capable of performing their job, identifying resources, understanding performance expectations, accomplishing work tasks, and managing the demands of their job effectively (Anderson, Linden, Allen, & Gibbs, 2009). Similarly, a number of graduates of our study reported that they had good learning experiences, that they felt as though they grew as an athletic trainer, and that their clinical experience was, in fact, the best part of their clinical education. These feelings may be due to the fact that some of these graduates expressed that they had ample opportunities to develop their administrative decision-making skills and that their confidence was increased because of their experiences, therefore they were better able to accomplish tasks and manage the demands of their clinical experience. Graduates of these nursing residency programs also discussed their feelings about clinical journaling assignments, which can be used as an evaluation tool in clinical education. Some perceived the journals as "busy work," while others found them to be a very helpful reflection tool. Journal topics directly related to clinical situations, such as patient rights, pain management, and service excellence were perceived to be helpful (Anderson, Linden, Allen, & Gibbs, 2009). In addition to these other measures, graduates reported feeling less anxious and more comfortable and confident after being a part of a nursing residency program. This may be due in part to the fact that they felt more supported by the nursing staff and preceptors during their residency program. Similar to these researchers, we also found that students who had more support from and interaction with their mentors and preceptors were more likely to be satisfied with their clinical education plan. Our results align with those found with the

didactic component of PPATEPs in that graduates of these programs were also satisfied with the overall educational experience (Henry et al, 2009).

Specific Clinical Factors

We believed that the time graduate's spent actively performing athletic training duties, the amount of autonomy, and the amount of direct contact with a clinical supervisor might have been predictors of the student's overall satisfaction of the clinical education plan. We found that the amount of autonomy experienced by the graduate was not a predictor of their satisfaction with their overall clinical education plan. Poynton, Madden, Bowers, Keefe, & Peery (2007) found that nurse residents were satisfied with their program that promoted autonomy and empowerment during their first year of practice. These programs promoted autonomy by beginning with support for professional development and recognition of the resident's growing skill set. Each month of the program included a session that dedicated time to sharing clinical experiences, which helped with both clinical and problem-solving abilities. The main goal of these sessions was to give the new graduates support as they start to practice on their own and to revisit concepts that they will need to assist them with clinical skill development (Poynton, Madden, Bowers, Keefe, & Peery, 2007). Self and peer recognition of growing competencies appeared to promote self-confidence and more autonomous practice (Poynton, Madden, Bowers, Keefe, & Peery, 2007). While these programs suggest that they promoted autonomy, it is clear that the graduates were provided with a support system to assist in increasing their confidence and skill set before they were expected to fully practice independently; and this may in fact have played a role in their satisfaction. Along those same lines, graduates of our study reported a lack of support system.

Therefore, it would appear that this may have played a role in their dissatisfaction. Also, this nursing residency article focused on nurses that were all in the same program while our results reflect the feelings of respondents across a total of 16 programs, which may have been the cause of different outcomes.

Our results suggest that the amount of direct contact time with the clinical supervisor is not a predictor of the satisfaction with the overall clinical education plan. A nursing study that describes the stresses and challenges experienced by graduate nurses in clinical practice during their preliminary orientation period (Oermonn & Moffitt-Wolf, 1997) may be helpful in considering why it was not a predictor. The predominate stressors were lack of experience, interactions with physicians, lack of organizational skills, and new situations and procedures. What the researchers found was that graduates identified consistent, supportive preceptors as facilitating their learning and developing their confidence. This study demonstrates the importance of the preceptor role (Oermonn & Moffit-Wolf, 1997). However the amount of contact time with their preceptor was not reported therefore this may infer that it is not actually the amount of contact time with the preceptor but the quality of the support. Over half of our respondents reported having daily direct contact with their clinical preceptor. This fact may reiterate that it is not the quantity of time with the clinical preceptor, since this is not lacking, but the quality of the time spent with the clinical preceptor that is effecting student satisfaction within PPATEPs.

The percentage of time spent actively performing athletic training duties was not a predictor of satisfaction with the overall clinical education plan. Over 60% of graduates reported performing athletic training duties 75-100% of the time but it appears that

increased time does not lead to increased satisfaction. Instead, percentage of time actively performing athletic training duties may be linked to the number of hours spent at the clinical placement each week. We hypothesized that graduates who completed more than 20 hours per week in their clinical experience would report higher satisfaction scores. For those graduates who responded to our study, number of hours per week spent at their clinical placement was not a factor in their overall clinical satisfaction. Those who spent an average of 18 hours/week and those who spent an average of 36 hours/week did not exhibit any significant differences in their overall clinical satisfaction. Therefore, it appears that for both percentage of time performing athletic training duties and the number of hours spent at the clinical placement it may not be the quantity but the quality of the experience.

We hypothesized that there would be a relationship between time spent performing athletic training duties and opportunities that were compatible with credentials and expertise and being provided with effective learning opportunities. Our results did not support our hypotheses. Chang & Hancock (2003) revealed that two of the largest stressors were role ambiguity and role overload. The topic of role overload was split into three sections, including no time to do everything, amount of work interferes with work, and no time to do the job (Chang & Hancock, 2003). It is evident that nurses are not in any way being deprived of opportunities to perform duties that are part of the nursing field. As mentioned earlier, it is clear that graduates of these PPATEPs are also being provided with ample opportunity to perform their athletic training duties. What was found in nursing is that it is difficult for new graduates to transition to staff nursing roles due to the fact that their baccalaureate level programs provide them with a wide

base of knowledge and what seems to be essential, for a smooth transition, is education in specific areas such as orthopedics, cardiology, and critical care (Goode & Williams, 2004). Much like what was found in nursing, the PPATEP graduates reported a high level of satisfaction with being presented opportunities compatible with their credentials and expertise, being provided with effective learning opportunities, and time spent actively performing athletic training duties. Based on that information, it may seem that there should be a relationship between these three factors. Upon looking at the qualitative data that was collected, it appears that graduates spent time performing athletic training duties but felt that there were components related to their credentials and expertise and learning opportunities that were missing from their experience. One respondent commented on the fact that their clinical setting did not allow for opportunity to complete full rehabilitation programs because they were the only clinician. Another respondent stated that they felt they were supervised a great deal so they were not presented with opportunities compatible with their credentials or new learning opportunities. It is possible that this respondent in particular was able to perform athletic training duties, such as taping and evaluating, but was not able to utilize other components of his/her knowledge. These are two examples of reasons that there may not have been a relationship between these three factors.

We also hypothesized that there would be a relationship between being presented with effective learning opportunities and the amount of autonomy the graduate had. Our results did not support this hypothesis. It appears that there may be a link between autonomy and the student's relationship with their preceptor. Students enrolled in a nursing residency valued having preceptors and mentors that were trustworthy and

available because it allowed them to feel supported in their learning (Anderson, Linden, Allen & Gibbs, 2009). This suggests that as graduates enter the work force, they may need assistance with application of their knowledge and with the acquisition of particular skills. A nursing residency serves a series of learning and work experiences designed to provide additional knowledge and experiences that include preceptors as required for new graduates to function (Goode & Williams, 2004). From this we may conclude that too much autonomy may not be favorable. The important factor seems to be the type of autonomy. Graduates of our study reported that they appreciated having preceptors and mentors who were supportive and took time to address concerns and issues. Poynton, Madden, Bowers, Keefe, & Peery (2007) suggest that although the graduates were practicing autonomously, they still favored a support system to ease their way into their practice. Students in programs like residencies and PPATEPs still need some interaction with their preceptors and mentors to ensure effective learning opportunities and proper growth.

We hypothesized that there would be a relationship between the amount of direct contact time with the student's preceptor and their satisfaction with the informal and formal feedback and mentorship received during their clinical experience and our results support these hypotheses. Similar to our findings, it was determined by a study examining the role of mentoring in nursing residencies that a successful relationship between the mentor and the student requires sufficient time for the connection to grow through face-to-face meetings on a regular basis (Beecroft, Santner, Lucy, Kunzman, &Dorey, 2006). While some student's reported that they did in fact receive what they were expecting from the relationship, a number reported wanting more guidance, not

receiving any suggestions or positive feedback, and feeling that the mentors may need more training in this area (Beecroft, Santner, Lucy, Kunzman, &Dorey, 2006). Another essential component of the study was their ability to conclude that there was a difference between those students who regularly met with their mentor and those who did not. For the student's who were able to have regular meetings, the majority noted that their mentor provided guidance and feedback and was a stress reducer. Less than half of this group of students wanted to see changes in the mentor program (Beecroft, Santner, Lucy, Kunzman, &Dorey, 2006). The concerns that these students expressed were very similar to the concerns that were conveyed by the student comments in our study. Some of our respondents expressed feeling that they weren't given any positive feedback and some reported no feedback at all. Respondents in our study also seemed to be yearning for a more structured clinical mentor interaction plan to be able to receive constructive and positive feedback about their performance at their clinical site and to discuss any issues that the student is experiencing. Beecroft, Santner, Lucy, Kunzman, &Dorey (2006) reported some comments indicating that neither the mentor nor mentee understood what was expected from the mentor relationship. From the perspective of more than a few of the mentees, support was the only expectation from mentoring. This may very well be one of reasons that there seems to be a disconnect between students and mentors in PPATEPs. It appears that mentors may not fully understand that students in PPATEPs are still looking for a support system and more guidance throughout their experience. Since there is a clear relationship between contact time, mentoring, and feedback received, it may be necessary to have educational meetings to allow the students and mentors to gain the knowledge of what the mentorship is about. Some may speculate that

students at the graduate level should not need so much guidance from their mentors. In order to address this, changes may need to be made at the professional level. Students at the professional level need to be making clinical decisions on their own earlier so that if they choose to further their education at the post-professional level they are not just beginning to do this, thus decreasing the amount of guidance they need and the type of guidance given.

Limitations

Several limitations of our study must be considered while reviewing our findings. The lack of ability to accurately obtain contact information on every graduate of the NATA-accredited PPATEPs prevented us from gathering the satisfaction scores and opinions of all graduates, which may have affected our results. With this being said, it is possible that the respondents may not have represented the views of the population accurately, as each institution was not represented proportionately. Another limitation to consider is directly related to the survey instrument itself. It is possible that some of the questions may have been worded too vaguely to get a true representation of the graduate's opinions. Also, the fact that we did not define autonomy or mentorship is a limitation because graduates may have had a different definition than the researchers, in mind when they responded to the survey.

Future Research

Future research should focus on longitudinal study of clinical satisfaction in order to provide a continuous measurement for improvement in the PPATEPs. Program personnel should aim to find ways to provide better mentorship and feedback for graduates in PPATEPs. There are currently no guidelines for providing mentorship and

very minimal guidelines regarding how feedback should be regulated within each program. This dearth of information makes it very difficult to ensure that programs are providing students with the support necessary for growth. Also, we only collected data on why students were less than extremely satisfied with numerous areas of clinical education. Looking into the components that led to the graduates being extremely satisfied may be valuable information because it may serve as a reference for programs so that they may make changes necessary to increase clinical satisfaction.

Conclusions

It is apparent that there are numerous factors that affect student clinical satisfaction. Direct contact time with clinical supervisors, feedback, and mentorship received during the clinical experience were three components that were key factors. While these three factors were related to each other, they were also related to other components, such as learning opportunities. In order for graduates of PPATEPs to feel as though they were supported and provided with opportunities that contributed to their growth, it is essential that they have stronger relationships with their preceptors and mentors. This study provides us with the evidence that although these graduates are deemed capable of practicing on their own once they have passed the certification exam, they still yearn for guidance and support from those around them. It is crucial that we take this information and begin to make the changes necessary so that graduates of these PPATEP programs continue to develop as they are meant to. Quality education was a reoccurring theme in our study. In order for change to occur it is essential that we begin to create clinical education plans that focus on quality education. Quality of hours spent at clinical placements, time spent actively performing athletic training duties, direct

contact time with preceptors and mentorship need to be explored further to make strides. In order for the evolution of these PPATEPs to occur it is absolutely crucial that all parties buy into these concepts.

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Appendix A

FREQUENCIES FOR SATISFACTION DATA

Satisfaction Area		Frequency	Percent
Overall Organization of Clinical Experience Plan	Extremely Satisfied	47	44.3%
	Very Satisfied	35	33%
	Satisfied	19	17.9%
	Very Dissatisfied	5	4.7%
	Extremely Dissatisfied	-	-
Learning Opportunities During Clinical Experience	Extremely Satisfied	58	54.7%
	Very Satisfied	25	23.6%
	Satisfied	15	14.2%
	Very Dissatisfied	8	7.5%
	Extremely Dissatisfied	-	-
Progressive Development of Professional Skills And Knowledge	Extremely Satisfied	65	61.3%
	Very Satisfied	22	20.8%
	Satisfied	18	17%
	Very Dissatisfied	1	.9%
	Extremely Dissatisfied	-	-
Evaluation of Clinical Experience	Extremely Satisfied	-	-
	Very Satisfied	15	14.2%
	Satisfied	24	22.6%
	Very Dissatisfied	12	11.3%
	Extremely Dissatisfied	1	.9%
Mentorship Received from Primary Clinical Mentor	Extremely Satisfied	56	52.8%
	Very Satisfied	16	15.1%
	Satisfied	23	21.7%
	Very Dissatisfied	9	8.5%
	Extremely Dissatisfied	-	-
Opportunities Compatible With Credentials And Expertise	Extremely Satisfied	73	68.9%
	Very Satisfied	22	20.8%
	Satisfied	9	8.5%
	Very Dissatisfied	-	-
	Extremely Dissatisfied	-	-
Formal And Informal Feedback During Clinical Experience	Extremely Satisfied	62	58.5%
	Very Satisfied	15	14.2%
	Satisfied	18	17%
	Very Dissatisfied	10	9.4%
	Extremely Dissatisfied	1	.9%

Develop Administrative Decision-Making Skills	Extremely Satisfied	64	60.4%
	Very Satisfied	14	13.2%
	Satisfied	19	17.9%
	Very Dissatisfied	9	8.5%
	Extremely Dissatisfied	-	-
Clinical Experience Did Not Interfere With Course Work Instruction	Extremely Satisfied	56	52.8%
	Very Satisfied	21	19.8%
	Satisfied	23	21.7%
	Very Dissatisfied	4	3.8%
	Extremely Dissatisfied	2	1.9%
Clinical Experience Did Not Interfere With Classroom Assignments	Extremely Satisfied	57	53.8%
	Very Satisfied	22	20.8%
	Satisfied	20	18.9%
	Very Dissatisfied	5	4.7%
	Extremely Dissatisfied	2	1.9%
Clinical Experience Did Not Interfere With Research Experience	Extremely Satisfied	52	49.1%
	Very Satisfied	28	26.4%
	Satisfied	17	16%
	Very Dissatisfied	7	6.6%
	Extremely Dissatisfied	2	1.9%
Hours Spent At Clinical Experience	Extremely Satisfied	55	51.9%
	Very Satisfied	21	19.8%
	Satisfied	20	18.9%
	Very Dissatisfied	6	5.7%
	Extremely Dissatisfied	4	3.8%
Overall Satisfaction With Clinical Education Plan	Extremely Satisfied	56	52.8%
	Very Satisfied	29	27.4%
	Satisfied	15	14.2%
	Very Dissatisfied	6	5.7%
	Extremely Dissatisfied	-	-
Time Spent Actively Performing Athletic Training Duties	100% of the time	10/106	9.4%
	75% of the time	55/106	51.9%
	50% of the time	35/106	33%
	25% of the time	6/106	5.7%
Amount of Direct Contact Time with Clinical Supervisor	Daily	62/106	58.5%
	5 Times/Week	14/106	13.2%
	3 Times/Week	11/106	10.4%
	Once/Week	7/106	6.6%

	Less Than Once/Week	12/106	11.3%
Amount of	All of the time	33	33.1%
Autonomous	Most of the time	53	50.0%
At clinical	Half of the time	10	9.4%
Experience	Some of the time	9	8.5%
	None of the time	1	0.9%

Appendix B

FREQUENCY VALUES FOR OPEN-ENDED SURVEY SECTIONS

Satisfaction Area	Theme	n
Organization of Clinical Experience Plan		
	Allowed appropriate growth	2
	Correct Placement	1
	Lack of staff support	6
	No input for clinical placement	6
	Disconnect of clinical and education	4
	No organization	4
	New program	2
	Inconsistent plan	3
	No autonomy	2
	Lack of funding	2
	Not enough challenge	3
	Lack of outside resources	1
	Lack of mentoring	1
	Conflict of class and clinical experience	3
Learning Opportunities During Clinical Experience		
	Positive research emphasis	1
	Consistent clinical assignments	1
	Vast opportunities (teaching, etc.)	1
	Not enough staff support	3
	Not enough undergraduate interaction	2
	Not enough experience	1
	Disconnect of clinical and education	2
	No new clinical skills introduced	2
	Lack of outside resources	5
	Lack of mentoring	1
	No autonomy	1
	No new experience	1
Progressive Development Of Professional Skills and Knowledge		
	Professional development	1
	Developed new clinical skills	4
	Interaction with outside resources	1
	Autonomous experience	1
	Lacking mentorship	5

	No new experience	1
	Disconnect of clinical and education	1
	No autonomy	1
	Lack of outside resources	1
	Not enough challenge	2
	Lack of staff support	1
	Lack of feedback	1
Evaluation of Clinical Experience		
	Open discussion	2
	No evaluation	6
	Little contact with supervisor	3
	Want more evaluations	7
	Done by inappropriate personnel	3
	Minimal feedback	3
	Need objectives	3
	No formal evaluations	2
Mentorship Received from Primary Clinical Mentor		
	Appropriate amount of feedback	1
	Open discussion	6
	Lacking staff support	9
	Didn't act as a mentor	4
	Lack of communication with mentor	4
	No mentor	2
	Lack of feedback	2
	Lack of consistency	4
Opportunities Compatible with Credentials and Expertise		
	Challenged	4
	Autonomous	3
	Lack of new experience	4
	Lack of autonomy	1
	Not enough guidance	1
Formal and Informal Feedback During Clinical Experience		
	Good communication	2
	Not enough feedback	13
	Not enough evaluations	1

	No formal feedback	2
	No feedback	4
	No advice on how to improve	1
	No discussion	2
	Lacking structure	1
Develop Administrative Decision-Making Skills		
	Made all decisions	3
	Appropriate experience	3
	Given tasks to complete	1
	No experience	10
	Needed permission	2
	Minimal experience	8
	Wanted more guidance	2
Clinical Experience Did Not Interfere with Course Work Instruction		
	Learned time management skills	6
	No conflict with clinical experience	4
	Course work came first	1
	Understanding professors	2
	Conflict with clinical experience	20
	Conflict with evening classes	4
	Rushed course work	1
Clinical Experience Did Not Interfere with Class work Assignments		
	Able to use clinical experience time	3
	Fair work schedules	2
	Learned time management skills	10
	Class work came first	1
	Flexible professors	1
	Interrupted assignments	2
	Not enough time in program	1
	Rushed assignments	5
	Conflict with clinical experience	8
	Lack of staff support	1

Clinical Experience Did Not Interfere with Research Experience		
	Able to use clinical experience time	5
	Fair work schedules	3
	Learned time management skills	3
	Research came first	1
	Interrupted experience	2
	Lack of staff support	5
	Rushed research experience	3
	Conflict with clinical experience	16
Overall Satisfaction of Clinical Education Plan		
	Positive clinical experience	4
	Good clinical education plan	4
	Positive research/classes	2
	Not challenging enough	5
	Unprofessional professors	1
	Disconnect of education and clinical	2
	No change seen after evaluations	1
	More staff support needed	2
	Better mentors needed	1
	More feedback necessary	1
Anything that could be added/changed		
	Better guidance for teaching	1
	More contact with undergraduates	1
	More outside resources	6
	Balance of CE, education and research	6
	New professors	1
	No online classes	1
	Teach how to mentor	1
	More injury evaluation classes	1
	Disconnect of clinical and education	2
	More feedback necessary	4
	Add a pharmacology class	1
	Clear clinical experience goals	1
	More clinical experience sites	1
	More mentors	2
	More open discussions	4
	More lab exposure	1
	More cadaver exposure	1
	Decrease clinical experience hours	1

Increase rehabilitation opportunities	1
Increase administrative opportunities	1
More challenging classes	1
Add a modalities class	1
Increase stipends	2
Implement EBP	1
Teach how to develop an EAP	1

Appendix C

CLINICAL EDUCATION AND POINTS OF DISTINCTIVENESS ASSESSMENT IN POST-PROFESSIONAL ATHLETIC TRAINING EDUCATION PROGRAMS

Nicole Catalano, ATC
Taylor Arman, ATC

Validity Scoring Rubric

Directions: Please rate each question on a scale of 1 to 3.

1 = question is poor and needs to be removed.
2 = question that will be acceptable once revised. (Please comment)
3 = question is good and should remain in the survey as written.

A comments column is provided for you to make suggestions for changes or to provide other feedback. We have also included 2 questions at the end of the survey that we would like you to answer. Thank you for your time!

Section One: Points of Distinctiveness

Question	Score (1-3)	Comments
1. Please select NATA Accredited Post-Professional Athletic Training Education Program that you graduated from.		
2. How satisfied were you with the program's over all development of your advanced knowledge and skills in the area of: (List each individual POD)		
3. Points of Distinctiveness are emphasized in post-professional athletic training programs through various mechanisms. Please select the mechanism in which the points of distinctiveness was emphasized the most. (List POD after question)		
4. Please rank the point of distinctiveness according to the amount of emphasis within the program. (List all PODs to rank)		
5. How influential were the program's points of distinctiveness in your decision to apply to the program?		
6. Prior to this survey, how confident were you in your knowledge of your program's points of distinctiveness?		

7. How influential were your program's points of distinctiveness in your job search?		

Section Two: Clinical Experiences

Question	Score (1-3)	Comments
1. How satisfied were you with your program's organization and structure of clinical experiences?		
2. How satisfied were you that your program's clinical education was able to ensure effective learning opportunities?		
3. How satisfied were you that your clinical experiences were able to reflect provisions for progressive development of professional skills and knowledge?		
4. How satisfied were you with the way in which your clinical experiences were evaluated?		
5. How frequently were your experiences evaluated? (Times per year)		
6. How satisfied were you with the mentorship by the person who evaluates you clinically?		
7. What type of evaluation instruments were utilized for clinical evaluation?		
8. How satisfied were you that your clinical experience presented you with opportunities that were compatible with your credentials and expertise?		
9. How satisfied were you with the clinical feedback you were getting?		
10. How satisfied were you that you were provided with opportunities to develop your administrative decision making skills?		
11. How satisfied were you that the number of hours spent in the clinical experience did not interfere with course work instruction?		

12. How satisfied were you that the number of hours spent in the clinical experience did not interfere with completion of assignments?		
13. How satisfied were you that the number of hours spent in the clinical experience did not interfere with the research experience?		
14. Please rate your overall satisfaction with your clinical experience in your NATA Accredited Post-Professional Graduate Athletic Training Education Program.		
15. Are there any components of clinical education that you would suggest adding or changing?		
16. Did your clinical placement align with your future setting choice?		
17. If no, why did your clinical assignment not align with your future setting choice?		
18. In which setting did you work after graduation?		

Part Three: Demographics

Question	**Score (1-3)**	**Comments**
1.On average, how many athletic injuries did you treat/evaluate (does not include taping) in the Athletic Training Clinic on a regular basis?		
2. What percentage of time was spent, at your clinical site, actively performing Athletic Training duties? (Taping, treating, evaluating, etc.)		
3. How many staff members, including yourself, are there at your clinical site?		
4. Did you feel that you had autonomous educational experiences at your clinical site?		

5. Sex		
6. Age		
7. Program Length		
8. Number of credit hours in the graduate program		
9. Number of students in graduating class		
10. What was the average number of hours, per week, completed at your clinical site?		
11. How often did you have direct contact with your clinical supervisor?		
12. At what setting/level was your clinical assignment? (Check all that apply)		

Question 1 for the panel of experts

In your opinion, how long do you think it will take subjects to complete the survey?

Question 2 for the panel of experts

Where should we include the demographic questions, at the beginning or end of the survey?

Additional comments or concerns about the survey instrument:

Section 1-

Section 2-

Section 3-

Appendix D

SUBJECT RECRUITMENT LETTER

Subject: Post-Professional Athletic Training Education Survey

Dear *SUBJECT NAME,*

Our names are Taylor Arman and Nicole Catalano, and we are graduate students at Old Dominion University pursuing a Master of Science in Education Degree with an emphasis in Athletic Training. We are conducting research under the supervision of Dr. Bonnie Van Lunen to study NATA-Accredited Post-Professional Athletic Training Education program assessment. You have been sent this email because you have been identified as a graduate of one of the sixteen programs in the country that offer a NATA-Accredited Post-Professional graduate curriculum. Your participation is essential to the success of this research.

Below you will find a link that will take you directly to an on-line survey that seeks to identify demographic information about you (the graduate), and your overall satisfaction of your clinical experience and your program's points of distinctiveness within your respective graduate program. The survey will require 30 minutes of your time, and your answers will remain confidential. By pressing the "Submit" button on the last page of the on-line survey your responses will be automatically sent it.

All participants will be given the opportunity to enter to win one of two 25 dollar Visa Gift Cards. Participants will also be given the opportunity to receive the results of the study once the research has been completed. Your help with this study is greatly appreciated. Any questions regarding the format or results of this study can be directed towards Taylor at tarma001@odu.edu or Nicole at ncata001@odu.edu. **Please complete your survey no later than November 14, 2010.**

To begin, please click on the link below or copy the link and paste it into your internet browser address area.

https://periwinkle.ts.odu.edu/surveys/UM35T9/

Thank you again for your time and participation.

Sincerely,

Taylor Arman, ATC
Graduate Assistant Athletic Trainer
Old Dominion University
(630) 363-1922 (Phone)
tarma001@odu.edu

Nicole Catalano, ATC
Graduate Assistant Athletic Trainer
Old Dominion University
(516) 457-0339 (Phone)
ncata001@odu.edu

Bonnie Van Lunen, PhD, ATC
Director, Post-Professional Athletic Training Education
Director, Human Movement Science
Old Dominion University
Department of Human Movement Science
Student Recreation Center, RM 2003A
Norfolk, VA 23529
bvanlune@odu.edu
757.683.3516 (Phone)
757.683.4270 (Fax)

Appendix E

CORRECTION LETTER

Subject: CORRECTION: Post-Professional Athletic Training Education Survey

Hello,

Yesterday you received an email from our research team pertaining to a Post-Professional Athletic Training Education Survey. Unfortunately, we have received some feedback that the hyperlink connecting you to the survey is experiencing some technical difficulties. We are in the process of correcting the issue and should have a new and fully functioning survey link to you in the next few days. At this time we would like to ask you to hold off on attempting to complete the survey until a new survey link has been sent to you. Thank you to those individuals who have notified us of the technical error, and we sincerely apologize for any inconvenience this has created.

We truly appreciate your assistance in our research survey and will be sending you a new hyperlink shortly. If you have any questions or concerns, please do not hesitate to ask.

Thank you,

Taylor Arman, ATC
Graduate Assistant Athletic Trainer
Old Dominion University
(630) 363-1922 (Phone)
tarma001@odu.edu

Nicole Catalano, ATC
Graduate Assistant Athletic Trainer
Old Dominion University
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Bonnie Van Lunen, PhD, ATC
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Student Recreation Center, RM 2003A
Norfolk, VA 23529bvanlune@odu.edu757.683.3516 (Phone)
757.683.4270 (Fax)

Appendix F

SECOND SUBJECT RECRUITMENT LETTER

Subject: Post-Professional Athletic Training Education Survey

Dear SUBJECT NAME,

Our names are Taylor Arman and Nicole Catalano, and we are graduate students at Old Dominion University pursuing a Master of Science in Education Degree with an emphasis in Athletic Training. We are conducting research under the supervision of Dr. Bonnie Van Lunen to study NATA-Accredited Post-Professional Athletic Training Education program assessment. You have been sent this email because you have been identified as a graduate of one of the sixteen programs in the country that offer a NATA-Accredited Post-Professional graduate curriculum. The Old Dominion University Institutional Review Board has approved this study. Your participation is essential to the success of this research.

Below you will find a link that will take you directly to an on-line survey that seeks to identify demographic information about you (the graduate), and your overall satisfaction of your clinical experience and your program's points of distinctiveness within your respective graduate program. The survey will require 30 minutes of your time, and your answers will remain confidential. By pressing the "Submit" button on the last page of the on-line survey your responses will be automatically sent it. By pressing the "submit" button, you are agreeing to participate in this research study.

All participants will be given the opportunity to enter to win one of two 25 dollar Visa Gift Cards. Participants will also be given the opportunity to receive the results of the study once the research has been completed. Your help with this study is greatly appreciated. Any questions regarding the format or results of this study can be directed towards Taylor at tarma001@odu.edu or Nicole at ncata001@odu.edu. **Please complete your survey no later than November 28, 2010.**

To begin, please click on the link below or copy the link and paste it into your internet browser address area.

https://periwinkle.ts.odu.edu/surveys/43U8FK/

Thank you again for your time and participation.

Sincerely,

Taylor Arman, ATC
Graduate Assistant Athletic Trainer

Old Dominion University
(630) 363-1922 (Phone)
tarma001@odu.edu

Nicole Catalano, ATC
Graduate Assistant Athletic Trainer
Old Dominion University
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Bonnie Van Lunen, PhD, ATC
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bvanlune@odu.edu
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757.683.4270 (Fax)

Appendix G

SUBJECT REMINDER LETTER

Subject: Post-Professional Athletic Training Education Survey Reminder

Dear *SUBJECT NAME,*

Our names are Taylor Arman and Nicole Catalano, and we are graduate students at Old Dominion University pursuing a Master of Science in Education Degree with an emphasis in Athletic Training. We are conducting research under the supervision of Dr. Bonnie Van Lunen to study both clinical experience and points of distinctiveness satisfaction levels of graduates of NATA-Accredited Post-Professional Graduate Athletic Training Education Programs. You have been sent this email because you have been identified as a graduate of one of sixteen programs in the country that offer a NATA-Accredited Post-Professional graduate curriculum. **If you have already had the opportunity to complete the survey, we thank you for your participation.** The Old Dominion University Institutional Review Board has approved this study. Your participation is essential to the success of this research.

Below you will find a link that will take you directly to an on-line survey that seeks to identify demographic information about you (the graduate), and your overall satisfaction of your clinical experience and your program's points of distinctiveness within your respective graduate program. The survey will require 30 minutes of your time, and your answers will remain confidential. By pressing the "Submit" button on the last page of the on-line survey your responses will be automatically sent it.

All participants will be given the opportunity to enter to win one of two 25 dollar Visa Gift Cards. Participants will also be given to the opportunity to receive the results of the study once the research has been completed. Your help with this study is greatly appreciated. Any questions regarding the format or results of this study can be directed towards Taylor at tarma001@odu.edu or Nicole at ncata001@odu.edu. **Please complete your survey no later than November 28, 2010.**

To begin, please click on the link below or copy the link and paste it into your internet browser address area.

https://periwinkle.ts.odu.edu/surveys/43U8FK/

Thank you again for your time and participation.

Sincerely,

Taylor Arman, ATC
Graduate Assistant Athletic Trainer
Old Dominion University

(630) 363-1922 (Phone)
tarma001@odu.edu

Nicole Catalano, ATC
Graduate Assistant Athletic Trainer
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Bonnie Van Lunen, PhD, ATC
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Appendix H

SURVEY INSTRUMENT

Points of Distinctiveness and Clinical Experience in NATA Accredited Post Professional Athletic Training Education Programs

POD Introduction

Thank you for your participation in this survey. There are two sections of this survey. The first includes questions about your NATA Post-Professional Athletic Training Education Program's POINTS OF DISTINCTIVENESS and should take approximately 15 minutes to complete.

According to the Standards and Guidelines for Post-Professional Athletic Training Education Programs (2002), each NATA Accredited Post-Professional Athletic Training Program must establish the program's points of distinctiveness. Points of distinctiveness (POD) are interest areas of the program that guide and focus the education of the students in the specific areas established by the program.

Please read all questions and answer them to the best of your ability. Your completion of this survey will be considered your consent to participate in this study. All information will be kept confidential. Upon completion of each survey page, press the NEXT button and the next page of questions will appear. If you need to stop the survey and return to it later, please press the SAVE button. This will allow you to start the survey from where you left off.

Select School

Please select the NATA Accredited Post-Professional Athletic Training Education Program that you graduated from.
{Choose one}

( ) A.T. Still University
( ) San Jose State University
( ) University of Hawaii at Manoa
( ) Illinois State University
( ) Indiana State University
( ) Indiana University
( ) University of Kentucky
( ) Michigan State University
( ) Western Michigan University
( ) University of North Carolina Chapel Hill
( ) Ohio University
( ) University of Oregon
( ) California University of Pennsylvania
( ) Temple University
( ) Old Dominion University
( ) University of Virginia

ATSU

A.T. Still University

Listed below are A.T. Still University NATA Accredited Post-Professional Athletic Training Education Program's points of distinctiveness. The following questions will be about the program's points of distinctiveness.

1. Advanced knowledge and clinical practice skills in physical examination and diagnosis, orthopedic rehabilitation, and pediatric athletic training.

2. The provision of patient-centered whole person health care services emphasizing evidence-based clinical practice, clinical outcomes assessment, and health care informatics.

3. Professionalism as a health care provider with knowledge of key health care dynamics in the United States and advanced knowledge and skills in athletic training leadership, administration, and management.

ATSU Sat 1

A.T. Still University

How satisfied were you with the program's overall development of your advanced knowledge and skills in the area of:

Advanced knowledge and clinical practice skills in physical examination and diagnosis, orthopedic rehabilitation, and pediatric athletic training.
{Choose one}

( ) Extremely Satisfied
( ) Very Satisfied
( ) Satisfied
( ) Very Dissatisfied
( ) Extremely Dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}

ATSU Emphasis 1

A.T. Still University

Points of Distinctiveness are emphasized in post-professional athletic training education programs through various mechanisms. Please indicate the amount of emphasis each mechanism had in the advancement of knowledge for the point of distinctiveness. Please use the scale listed to the right. You may use a number more than once, but please only list one number per mechanism.

Advanced knowledge and clinical practice skills in physical examination and diagnosis, orthopedic rehabilitation, and pediatric athletic training.

0= No Emphasis
1= Slight Emphasis
2= Moderate Emphasis
3= Strong Emphasis

Faculty Expertise
{Enter text answer}
[ ]

Academic Courses
{Enter text answer}
[ ]

Research Emphasis
{Enter text answer}
[ ]

Clinical Experience
{Enter text answer}
[ ]

ATSU Competencies and SC 1

A.T. Still University

Check all competencies that are related to this POD:

Advanced knowledge and clinical practice skills in physical examination and diagnosis, orthopedic rehabilitation, and pediatric athletic training.
{Choose all that apply}

( ) Patient-Centered Care: Advocate, educate, and collaborate with the patient's best interest as a priority to develop an effective treatment plan
( ) Interdisciplinary collaboration: Interact with other healthcare professionals to optimize the quality of care for the patient
( ) Evidence-Based Practice: Integrate best available research evidence with clinical expertise and consideration of patient values and circumstances to optimize patient outcomes
( ) Quality Improvement: Continually recognize and identify objectives for improvement, and them implement and assess these objectives through changes in patient outcomes
( ) Use of Healthcare Informatics: Use information technology to manage clinical data and access the most recent evidence pertaining to optimum patient care.
( ) Professionalism: Adherence to NATA Code of Ethics and BOC Standards of Practice in all aspects of clinical practice and personal conduct
( ) No competency is related to this POD

A specialty certification is an advanced clinical practice credential that demonstrates the attainment of knowledge and skills that will enhance the quality of patient care, optimize clinical outcomes, and improve patients' health-related quality of life, in specialized areas of athletic training practice.

What is the likelihood that this POD could develop into a specialty certification?
{Choose one}

( ) Extremely Likely
( ) Very Likely
( ) Likely
( ) Very Unlikely
( ) Extremely Unlikely

ATSU Rank

A.T. Still University

Please rank the points of distinctiveness according to the amount of emphasis within the program.
{Rank the following from 1 to 3}

[ ] Advanced knowledge and clinical practice skills in physical examination and diagnosis, orthopedic rehabilitation, and pediatric athletic training.
[ ] The provision of patient-centered whole person health care services emphasizing evidence-based clinical practice, clinical outcomes assessment, and health care informatics.
[ ] Professionalism as a health care provider with knowledge of key health care dynamics in the United States and advanced knowledge and skills in athletic training leadership, administration, and management.

(1= strong emphasis and 3= slight emphasis)

POD and Applying

How influential were the program's points of distinctiveness in your decision to apply to the program?
{Choose one}

( ) Extremely Influential
( ) Very Influential
( ) Influential
( ) Very Non-influential
( ) Extremely Non-influential

POD Knowledge

Prior to this survey, how confident were you in identifying your program's points of distinctiveness?
{Choose one}

( ) Extremely Confident
( ) Very Confident
( ) Confident
( ) Very Unconfident
( ) Extremely Unconfident

POD Job Search

When applying for positions, how influential were your program's points of distinctiveness in your job search?
{Choose one}

( ) Extremely Influential
( ) Very Influential
( ) Influential
( ) Very Non-influential
( ) Extremely Non-influential

CE Introduction

The second section of this survey pertains to components of CLINICAL EDUCATION PLAN within your NATA Accredited Post-Professional Athletic Training Program in accordance with the NATA Standards and Guidelines for Post-Professional Athletic Training Education Programs (2002).

Clinical education will be defined as the formalized clinical plan, which encompasses a variety of experiences (journal clubs, grand rounds, physician rotations, clinical experiences, etc.) that involve progressive development of clinical skills and decision making.

Clinical experience will be defined as informal learning opportunities during which your skills are actively applied with a patient population in a clinical environment (High school, college, industrial setting, etc.).

Org/Structure

How satisfied were you with your program's overall organization regarding your clinical experience plan?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Learning Opportunities

How satisfied were you that your program's clinical education plan was able to provide effective learning opportunities?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Progressive Development

How satisfied were you that your clinical experiences were able to provide progressive development of professional skills and knowledge?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Evaluation of CE

How satisfied were you with the way your clinical experiences were evaluated?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

How frequently were your experiences evaluated? (Times per year)
{Enter text answer}
[ ]

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Mentor

How satisfied were you with the mentorship you received from your primary clinical mentor?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

What type of evaluation instruments were utilized for clinical evaluation? (Select all that apply)
{Choose all that apply}

( ) Clinical Site Evaluation
( ) Evaluation of the Graduate Assistant/Student by Supervisor
( ) Evaluation of the Clinical Supervisor
( ) Other [ ]

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Opportunities

How satisfied were you that your clinical experience presented you with opportunities that were compatible with your credentials and expertise?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Competency

Please check all competencies that are included in your clinical education plan.
{Choose all that apply}

( ) Patient-Centered Care: Advocate, educate, and collaborate with the patient's best interest as a priority to develop an effective treatment plan
( ) Interdisciplinary collaboration: Interact with other healthcare professionals to optimize the quality of care for the patient
( ) Evidence-Based Practice: Integrate best available research evidence with clinical expertise and consideration of patient values and circumstances to optimize patient outcomes
( ) Quality Improvement: Continually recognize and identify objectives for improvement, and then implement and assess these objectives through changes in patient outcomes.
( ) Use of Healthcare Informatics: Use information technology to manage clinical data and access the most recent evidence pertaining to optimum patient care.
( ) Professionalism: Adherence to NATA Code of Ethics and BOC Standards of Practice in all aspects of clinical practice and personal conduct
( ) No competency is related to this POD

Feedback

How satisfied were you with the formal and informal feedback about your performance during your clinical experience?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Admin/Decision Making Skills

How satisfied were you that you were provided with opportunities to develop your administrative decision making skills?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Hours/Instruction

How satisfied were you that your clinical experience(s) did not interfere with course work instruction?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Hours/Assignment

How satisfied were you that your clinical experience(s) did not interfere with completion of classroom assignments?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Hours/Research

How satisfied were you that your clinical experience(s) did not interfere with the research experience?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

If you chose any answer besides "Extremely Satisfied," please explain here.
{Enter answer in paragraph form}
[ ]

Expectations

How satisfied were you with the number of hours spent at your clinical experience based on the hour expectations set in your clinical experience plan?
{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely dissatisfied

Overall Satisfaction

Please rate your overall satisfaction with your clinical education plan in your NATA Accredited Post-Professional Graduate Athletic Training Education Program.

{Choose one}

( ) Extremely satisfied
( ) Very satisfied
( ) Satisfied
( ) Very dissatisfied
( ) Extremely satisfied

If you chose any answer besides "Extremely Satisfied," please explain here.

{Enter answer in paragraph form}

[ ]

Changing

Are there any components of clinical education that you would suggest adding or changing?
{Enter answer in paragraph form}
[ ]

Future Setting

Did your clinical placement align with your future setting choice (high school, collegiate, etc.)?
{Choose one}

( ) Yes
( ) No

If no, why did your clinical assignment not align with your future setting choice?
{Enter answer in paragraph form}

[ ]

In which setting did you work after graduation?
{Choose all that apply}

( ) College/University
( ) High School
( ) Clinic-Out reach
( ) Professional Sports
( ) Doctoral Studies
( ) Other health professions studies
( ) Not Yet Determined
( ) Other [ ]

Demo 1

On average, how many injured athletes did you treat/evaluate (does not include taping) in the Athletic Training Clinic on a daily basis?
{Enter text answer}
[ ]

What percentage of time was spent, at your clinical site, actively performing Athletic Training duties? (Taping, treating, evaluating, etc.)
{Choose one}
( ) 25% of the time
( ) 50% of the time
( ) 75% of the time
( ) 100% of the time

How many staff members, including yourself, are there at your clinical site?
{Enter text answer}
[ ]

Did you feel that you had autonomous educational experiences at your clinical site?
{Choose one}
( ) All of the time (100%)
( ) Most of the time (75%)
( ) Half of the time (50%)
( ) Some of the time (25%)
( ) None of the time (0%)

Demo 2

Sex:
{Choose one}
( ) Male
( ) Female

Age
{Enter text answer}
[ ]

Graduation Year from Post-Professional Athletic Training Education Program
{Choose one}
( ) 2009
( ) 2010

Program Length
{Choose one}
( ) 1 year
( ) 2 years

Number of credit hours in the graduate program:
{Enter text answer}
[ ]

Number of students in graduating class:
{Enter text answer}
[ ]

Demo 3

What was the average number of hours, per week, completed at your clinical site?
{Enter text answer}
[ ]

How often did you have direct contact with your clinical supervisor?
{Choose one}
( ) Daily
( ) 5 times/week
( ) 3 times/week
( ) Once/week
( ) Less than once/week

At what setting/level was your clinical assignment? (Check all that apply)
{Choose all that apply}
( ) Division I
( ) Division II
( ) Division III
( ) Junior College
( ) High School
( ) Clinic
( ) Military
( ) Industrial
( ) Teaching/laboratory
( ) Other [ ]

Thank You

The survey will be complete once you click the "submit" button. Thank you for your participation.

If you would like to be entered in the drawing for a $25 Visa gift card, please enter your e-mail address below. Again, thank you for participation in this study.

E-Mail Address
{Enter text answer}
[ ]

Table 1. Demographic Descriptive Data

Demographic		N	Mean	Standard Deviation
Age (years)		106	25.35	2.03
	Male	41	26.05	2.25
	Female	65	24.91	1.77
Graduation Year				
	2009	50		
	2010	56		
# of Staff Members			4.65	4.71
Direct Contact with Supervisor (Times per week)				
			4.01	1.41
Class Size			11.30	4.23

Table 2. Level of Satisfaction Within Each Clinical Area (mean ± SD)

Satisfaction Area	Mean ± SD
Overall Organization of Clinical Experience Plan	4.17 ± .889
Learning Opportunities During Clinical Experience	4.25 ± .967
Progressive Development Of Professional Skills and Knowledge	4.42 ± .804
Evaluation of Clinical Experience	4.03 ± 1.13
Mentorship Received from Primary Clinical Mentor	4.08 ± 1.12
Opportunities Compatible With Credentials and Expertise	4.57 ± .731
Formal and Informal Feedback During Clinical Experience	4.20 ± 1.10
Develop Administrative Decision-Making Skills	4.23 ± 1.03
Clinical Experience Did Not Interfere with Course Work Instruction	4.18 ± 1.02
Clinical Experience Did Not Interfere with Classroom Assignments	4.20 ± 1.03
Clinical Experience Did Not Interfere with Research Experience	4.14 ± 1.04
Hours Spent at Clinical Experience	4.10 ± 1.13
Overall Satisfaction with Clinical Education Plan	4.27 ± .911

Table 3. Ordinal Regression Results (Dependent Variable = Satisfaction Scores)

Variable	Estimate	*Wald*	*p*-value
Autonomy	-.153	.124	.724
Performing Duties	.652	1.02	.313
Contact Time	-.519	.875	.350
Number of Staff Members	21.343	<.0001	.998

Table 4. Mann-Whitney U and Wilcoxon Rank Sum Results

Item	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon Rank Sum
Less Than 20 Hours Per Week Spent at Clinical Placement	43.67	655.00	535.00	655.00
Greater than 20 Hours Per Week Spent at Clinical Placement	55.12	5016.00		

Table 5. Values for Spearman Correlation

Variable 1	Variable 2	r	*p*
Opportunities compatible With credentials and Expertise	Percentage of time Spent actively performing Athletic training duties	.114	.243
Provided with effective Learning opportunities	Percentage of time Spent actively performing Athletic training duties	.170	.081
Provided with effective Learning opportunities	Amount of clinical Autonomy	.171	.080
Formal and informal Feedback about Performance during Clinical experience	How often participants Had direct contact with Their clinical supervisor	.287	.003
Mentorship that Participants received from Their primary clinical mentor	How often participants Had direct contact with Their clinical supervisor	.510	<.001

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Education

2009-Present	Old Dominion University, Norfolk, VA Post-Professional Athletic Training Program, M.S.Ed. Anticipated Graduation Date: August 2011
2005-2008	State University of New York College at Cortland, Cortland, NY Bachelor of Science in Athletic Training Graduation Date: December 2008, Cum Laude, Honors Program

Clinical Experience

Fall 2009-Spring 2011	Virginia Wesleyan College – Graduate Assistant Athletic Trainer for Women's Soccer, Women's Basketball, Softball and Field Hockey
Spring 2007-2008	State University of New York College at Cortland - Athletic Training Student Cornell Football, Cortland Baseball, Women's Basketball, and Track and Field

Teaching Experience

Fall 2010	HE 224: Co-Instructor for Advanced First Aid & Emergency Care Old Dominion University Norfolk, VA
Fall 2008	Undergraduate Teaching Assistant ATR 323- Advanced Clinical Skills
Fall 2007	Cortland Experience Teaching Assistant

Presentations

Spring 2010	Implementation of the Ankle Disablement Model 2010 Clinical Preceptor Meeting Old Dominion University, Norfolk, VA