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The clinical education experiences of athletic training students present the optimal environment for fostering professional socialization and improving professional preparation. It is in the clinical settings that students have the greatest opportunity to learn the norms, behaviors, culture, and ideology of athletic training. Currently, there is variation in the delivery of clinical education experiences among athletic training programs with some programs utilizing a clinical integration model in which students complete clinical rotations and courses concurrently, and others offering immersive experiences where students are in the clinical setting full-time with little or no concurrent coursework. However, the impact that the use of a clinical immersion model has on the socialization and development of professional commitment is still unknown.

The aim of this study was to determine the influence of clinical immersion and clinical integration experiences in fostering professional socialization and professional commitment in athletic training students. Additionally, the study explored athletic training students' views on the role of clinical experiences on their career goals and commitment. Study participants included 115 final year athletic training students enrolled in accredited athletic training programs at both the bachelor's and master's level in Districts Three and Four of the National Athletic Trainers' Association. Participants completed an online survey that included measures of professional socialization and career commitment. The survey also identified participants' career intentions as well as their attitudes and views of their clinical experiences.

The results of the study indicate that there are no significant differences in professional socialization and career commitment between students that completed clinical integration experiences as compared to clinical immersion experiences. Open-ended response data revealed that athletic training students identify hands-on and autonomous experiences in addition to quality

preceptors as indicators of positive clinical experiences and outcomes. This study adds to the previous research that has recognized the importance of clinical education and suggests that athletic training programs should place greater focus on the quality of the clinical experience and the individuals charged with teaching students, rather than the amount of time spent at the clinical rotation.

INFLUENCE OF CLINICAL EDUCATION MODELS ON PROFESSIONAL  
SOCIALIZATION AND COMMITMENT TO ATHLETIC TRAINING

by

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## CHAPTER I

### PROJECT OVERVIEW

Professional socialization plays a pivotal role in athletic training education and is a key component in professional preparation and the development of realistic views of the profession. The athletic training clinical education experience is an integral part of the professional socialization of students (Young, Klossner, Docherty, Dodge, & Mensch, 2013). The purpose of professional education programs, such as athletic training, is to develop and foster a professional identity (Perna & Hudgins, 1996). The athletic training profession is growing and is expected to see a 21 percent increase in employment between 2014 and 2024 (Bureau of Labor Statistics, 2015). However, the profession continues to be faced with the problem of poor retention indicating a need for effective strategies that will better prepare students to meet the demands of the profession and persist in athletic training. In 2020, the standards for accreditation of athletic training programs will include required clinical immersion experiences (Commission on the Accreditation of Athletic Training Education [CAATE], 2018a). In addition, professional athletic training programs will be required to be at the master's degree level by 2022. With the changes in program requirements, program directors will have the opportunity to consider how to best implement clinical education experiences. The findings of this study will contribute to clinical education best practices and drive future standards for athletic training programs in order to improve the professional socialization of students and commitment of athletic training professionals.

## **Background Literature**

The landscape of higher education is continually changing and educators are tasked with finding innovative teaching strategies that engage and motivate as well as prepare students to be successful after graduation. Professional athletic training education programs are charged with developing knowledgeable and skilled students equipped with the tools needed to successfully pass a national certification exam, the Board of Certification (BOC), and enter the athletic training profession. The athletic training profession is growing and athletic trainers are being employed in a variety of athletic and clinical settings. However, the profession continues to struggle with issues of retention despite increases in employment opportunities. Reasons for leaving the profession have included lack of work-family balance, burnout, and poor professional preparation (Kahanov & Eberman, 2011). While some factors that contribute to poor retention may be difficult to overcome, professional preparation is a factor that directly relates to educational experiences and athletic training programs have the ability to incorporate strategies to improve the preparedness of athletic training students.

### **Clinical Education in Athletic Training**

Athletic training education combines classroom, laboratory, and clinical instruction for the professional education of its students (CAATE, 2012). While the classroom and laboratory instruction provide students with the knowledge and skills of athletic trainers, the clinical instruction provides an opportunity for students to work under the direct supervision of a certified athletic trainer or other properly credentialed healthcare professional (CAATE, 2012). In the clinical setting the student gains exposure and experiences that contribute to professional socialization (Young et al., 2013). Professional socialization is the process by which one learns the behaviors, attitudes, values, and norms of the professional role they intend to assume (Weidman, Twale, & Stein, 2001). This occurs prior to entering the field and is when the

individual may develop expectations or preconceived opinions about the profession through personal observation or through interactions with individuals already working in the desired profession.

A study by Benes, Mazerolle, and Bowman (2014) looked at the influence of clinical experiences on professional development. In this study, the researchers interviewed both athletic training students and preceptors and identified three major themes of experiences that included realistic experience, positive experience, and diversity of experiences. Students that have positive clinical learning experiences are more likely to persist in athletic training programs. Athletic training students and preceptors agree that the clinical setting provides an opportunity for the students to see all aspects of the profession leading to greater awareness and opportunities to apply knowledge and skills (Benes et al., 2014). Much of the clinical education experience contributes to the formal and informal stages of professional socialization and the development of a professional identity can be influenced by faculty, clinical instructors, peers, and patients (Mazerolle, Bowman, & Dodge, 2014; Young et al., 2013). These socializing agents facilitate the legitimization of athletic training students as the student seeks acceptance and affirmation from others of their emerging professional identity as an athletic trainer (Klossner, 2008; Mazerolle, Gavin, Pitney, Casa & Burton, 2012).

A more recent study found that clinical education was a major facilitator in the socialization of professional master's athletic training students as they prepared to transition into practice (Bowman, Mazerolle, and Barrett, 2017). In this study, 56 percent of student participants indicated that the clinical education experiences were the primary reasons they felt prepared for their role as an athletic trainer following graduation (Bowman et al., 2017). Participants also indicated that the diversity of experiences and immersion also played a role in their level of preparedness. In addition, clinical education experiences impact students' decisions to enter the

athletic training profession. A 2010 study identified key elements of professional socialization as reasons why students chose careers in athletic training. The reasons included mentorship by the clinical instructor as well as the clinical instructor's roles, demonstration of professionalism, and attitude towards the work setting (Neibert, Huot, and Sexton, 2010). Students' acknowledgments of the influence that clinical experiences have on their career decisions and preparedness provides additional evidence of the importance of clinical education in the professional socialization process.

### **Delivery of Clinical Education**

Despite the evidence available supporting the positive influence of clinical education on the professional socialization process, little is known about the best delivery methods of clinical education in athletic training. While accreditation standards for athletic training programs require clinical education experiences for students, there is some autonomy given to institutions to direct the implementation of those experiences (CAATE, 2012). This has led to a variety of curriculum models and the manner in which students spend time in clinical settings is dependent upon the institution. Some programs offer a clinical integration model in which students complete clinical education requirements while simultaneously receiving classroom instruction (Elder, Eberman, & Walker, 2017). These students attend classes several days per week and may also spend approximately 20 hours per week at a clinical site. In contrast, in the clinical immersion model students complete their classroom instruction at a time separate from their clinical education. This allows the student to be immersed in the clinical setting full-time and learn the daily work expectations as well as how to maintain work-life balance (Elder et al., 2017). For example, the student may work 40 hours per week at a clinical site for a period ranging from four to fifteen weeks. Students that become immersed in the profession are more apt to learn about the cultures

and attitudes of athletic training due to greater exposure and the absence of time constraints (Elder et al., 2017).

Although research comparing clinical integration and clinical immersion is limited, Elder et al. (2017) suggest institutions consider using clinical immersion or a hybrid of the two models to provide a progressive and comprehensive learning experience. Using a hybrid model, students would attend classes and complete didactic coursework for only part of the semester, or approximately 8 weeks. For the remaining part of the semester, the students would engage in an immersive clinical education experience transferring the knowledge and skills learned in the classroom to the clinical setting (Elder et al., 2017). Recently, CAATE released new standards for the accreditation of professional athletic training programs that will become effective in 2020. One of the newly adopted standards is a requirement of programs to offer an immersive clinical experience for a minimum of four consecutive weeks (CAATE, 2018a). However, there is a lack of empirical evidence focused towards athletic training that supports the recommendation for using immersive clinical experiences or a hybrid model. In addition, little is known about how differences in clinical education models impact professional socialization and professional commitment.

The body of work that has been reviewed indicates a need to establish effective strategies for the implementation of clinical education as it relates to the improvement of professional socialization and professional commitment in athletic training. While there are apparent changes to the clinical education requirements of athletic training programs there is still a lack of research indicating the effectiveness of clinical education models in athletic training. To fill this gap in knowledge this study will determine the effectiveness of both the clinical immersion and clinical integrations models in influencing the professional socialization of athletic training students' as well as commitment.

## **Purpose Statement**

The purpose of this study is to determine how the type of clinical education model used in athletic training programs relates to the socialization of students and their commitment to the athletic training profession. Understanding how each of these clinical education models influences the socialization and professional commitment of students will aid program directors of athletic training programs in making a more informed decision regarding the design of the clinical education component of their program. The aims of this study are as follows:

1. Determine the influence of clinical immersion and clinical integration experiences in fostering professional socialization and professional commitment in athletic training students.
2. Explore athletic training students' views on the role of clinical experiences on their career goals and commitment.

## **Methods**

### **Participants**

The target population for this study was final year athletic training students currently enrolled in an accredited athletic training education program within Districts Three and Four of the National Athletic Trainers' Association (NATA). District Three of the NATA includes North Carolina, South Carolina, Virginia, West Virginia, Maryland, and the District of Columbia. District Four includes Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. At the time of the study there were 35 athletic training programs located within District Three and 62 programs within District Four that met the inclusion criteria (CAATE, 2018b). The study included athletic training programs at both the bachelor's and professional master's levels. Programs that were seeking a degree change to transition from the bachelor's to master's level were also included. Students that had not entered their final year of the athletic training program

were excluded from the study due to the potential lack of sufficient clinical education experiences. In addition, students enrolled in athletic training programs that are not currently accredited or that are in the process of voluntarily withdrawing their accreditation were also excluded.

The survey instrument was sent to 97 accredited athletic training programs across Districts 3 and 4 of the NATA and 133 participants consented to participate in the study. Participants that did not meet the inclusion criteria of being enrolled in an accredited athletic training program and being a final year athletic training student were excluded, resulting in 121 qualifying participants. An additional 6 participants were excluded because they only completed the demographic portion of the survey and did not respond to the professional socialization scale, career commitment scale or provide information about their clinical experiences. Data analysis included 115 participants.

Of the 115 participants, 82 identified as female (71.3%) and 33 identified as male (28.7%). The majority reported their race/ethnicity as White ( $n = 95$ ) while 9 (7.8%) reported as African-American, 3 (2.6%) as Hispanic/Latino or Spanish origin, 6 (5.2%) as Asian, and 1 (.9%) participant as Other. The respondents ranged in age from 20-33 with an average age of 22.96 ( $SD = 1.77$ ). Most participants ( $n = 91$ , 79.1%) were enrolled in athletic training programs at the bachelor's level and expected to graduate in Spring 2019 (85.2%,  $n = 98$ ). The majority of participants were from District 4 (72.2%) with 35 respondents (30.5%) from institutions located in Ohio. At the time of the survey, 62 of the 97 athletic training programs solicited for participation were within District 4 of the NATA.

### **Instrumentation**

A self-administered survey instrument was utilized to evaluate the relationship between clinical education models and athletic training students' development of professional socialization

and commitment to the profession (Appendix A). The survey consisted of both closed and open-ended questions that included demographic information about the participants and details about their athletic training program and clinical experiences. In addition, the survey assessed participants professional socialization and commitment to athletic training as well as their career intentions.

Hall's Professionalism Scale was adapted to evaluate participants professional socialization. Hall's Professionalism Scale is an attitude scale developed by Richard H. Hall in 1966 to measure the extent of an individual's professional socialization into an occupation (Snizek, 1972). This instrument was chosen because it has been used to study the professional attitudes of individuals in numerous occupations, including healthcare professions. The instrument measures the attitudes and behaviors of professionalism across five dimensions which include: use of the professional organization as a reference, belief in public service, belief in self-regulation, sense of calling to the field, and autonomy (Hall, 1968; Snizek, 1972).

For this study only two dimensions were included in the survey instrument: belief in public service and sense of calling to the field. These two dimensions were chosen because of their relevance to athletic training students views of the profession. Belief in public service refers to the individual's belief that the profession is indispensable and is beneficial to society (Hall, 1968). Sense of calling to the field was an included dimension in the study because it reflects the individual's dedication to the profession and desire to work in the field even in the absence of extrinsic rewards (Hall, 1968). For each dimension participants responded to 5 statements on a 5-point Likert scale ranging from strongly disagree to strongly agree. Total scores ranged from 5-25 on each scale with higher scores indicating greater professionalism.

Career commitment was assessed utilizing a 7-item scale developed by Gary Blau (1988). Blau described career commitment as one's attitude towards their profession and has found that

an individual's level of commitment can explain their intent to leave the profession (Blau, 1988; Blau & Lunz, 1998). Each item on the career commitment scale is measured on a 5-point Likert scale in which 1 equals strongly disagree and 5 equals strongly agree. Total scores on the commitment scale range from 7-35 with higher scores demonstrating greater commitment.

Participants were also asked their immediate and long-term career intentions and to indicate the effects their clinical experiences have had on their career intentions, professional goals, preparation, and commitment. Two open-ended survey items asked participants: 1) What were the most positive aspects of your clinical experiences, and 2) What, if anything, would have made your clinical experiences better?

### **Procedures**

Prior to recruitment of participants, approval was obtained by the Institutional Review Board at the University of North Carolina at Greensboro. The Commission on Accreditation of Athletic Training Education website was used to identify institutions with athletic training education programs within Districts Three and Four of the NATA that meet the inclusion criteria for the study. After identifying the athletic training education programs that meet the inclusion criteria, program directors and clinical coordinators were contacted via email (Appendix B) to solicit their assistance in recruiting student participants. The nature of the study was described to the program directors and clinical coordinators and they were asked to forward the invitation to participate in the study along with a link to the survey to their final year athletic training students.

A follow-up email was sent two weeks after the initial email to remind the program directors and clinical coordinators to forward the invitation to participate in the study to their students (Appendix B). The survey was administered using Qualtrics and participants were informed that their participation was voluntary and that the survey would take approximately 10-

15 minutes to complete. Upon completion of the survey, participants had the opportunity to enter a drawing to receive a \$25 Amazon gift card.

### **Data Analysis**

At the conclusion of data collection, survey responses were downloaded from Qualtrics to SPSS Statistics Version 25 for analysis and interpretation using descriptive, correlational, and inferential statistics. All data were stored using password-protected software. Measures of frequency were obtained for survey items pertaining to demographics, athletic training program, and clinical education experiences. The Pearson correlation coefficient was used to determine the relationships between the professional socialization and career commitment scales. A one-way analysis of variance (ANOVA) was used to compare professionalization and commitment scores of those with clinical immersion experience to those with clinical integration experiences. Additional one-way ANOVAs were conducted to compare those students who did and did not have immediate and long-term professional goals in athletic training on the professional socialization and career commitment scales.

De-identified open-ended responses were downloaded to Microsoft Excel for content analysis. According to Hsieh and Shannon (2005), qualitative content analysis is a method by which text data is interpreted through a systematic coding process and identification of themes and patterns. By using a conventional method of content analysis, categories were derived during the data analysis process. The primary investigator initially reviewed open-ended response data and created a preliminary list of categories by identifying keywords throughout the text. The categories were then reviewed for similarities and combined when appropriate. After creating categories, each response was reviewed a second time by the primary investigator and coded in the appropriate categories. A second coder also reviewed and categorized each open-ended response. Codes were compared between the primary investigator and the second coder to

identify inconsistencies. Responses that elicited differences in coding were reviewed a third time and the final categorization was determined by the primary investigator.

## Results

### Clinical Experiences

The two primary modes of clinical education delivery are clinical integration and clinical immersion. Many of the participants reported they had only experienced clinical integration (64.3%), while the remaining participants had experienced either clinical immersion only or a combination of both clinical models (see Table 1). For data analysis, participants that had clinical immersion experience only were combined with participants that had experienced both clinical integration and clinical immersion. Results showed that 46.1% of participants had at least 5 or more clinical integration rotations. In contrast, only 16.4% of participants had more than one clinical immersion rotation. All of the participants indicated that they have completed a clinical rotation in the collegiate setting (100%) and the majority have had rotations in the high school (87%) and clinic settings (58.3%).

*Table 1*

*Clinical Education Models Experienced*

	<i>n</i>	%
Clinical integration only	74	64.3
Clinical immersion only	3	2.6
Both integration and immersion	38	33

### Professional Socialization and Career Commitment

Mean scores on the professional socialization subscales were 15.15 ( $SD = 3.36$ ) for belief in public service and 18.37 ( $SD = 2.63$ ) for sense of calling to the field. Participants had a mean score of 27.09 ( $SD = 5.96$ ) on the career commitment scale (Table 2). A one-way ANOVA was

calculated to compare participants professional socialization and the type of clinical education models they have experienced. There were no statistically significant differences in mean scores for belief in public service,  $F(1, 113) = 0.05, p = .820$ , or sense of calling to the field,  $F(1, 113) = .88, p = .351$ . A one-way ANOVA was also calculated to compare participants career commitment based on clinical education models experienced and there was no significant difference found between mean scores,  $F(1, 113) = 1.68, p = .197$ .

*Table 2*

*Descriptive Analysis and One-Way ANOVA of Professional Socialization and Career Commitment Scores*

	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig</i>
Belief in Public Service				
Clinical integration only	15.09	3.43		
Clinical immersion only or both	15.24	3.27		
Total	15.15	3.36	.05	.820
Sense of Calling to the Field				
Clinical integration only	18.20	2.76		
Clinical immersion only or both	18.68	2.38		
Total	18.37	2.63	.88	.351
Career Commitment				
Clinical integration only	27.62	5.52		
Clinical immersion only or both	26.12	6.64		
Total	27.09	5.96	1.68	.197

\* $p < .05$

Correlations were computed for each of the scores of the professional socialization scales and career commitment scores. Results indicate a positive linear relationship for each correlation (Table 3). This suggests that participants that demonstrate higher levels of professional socialization will have higher career commitment scores.

Table 3

*Correlation Between Professional Socialization and Career Commitment Scores*

	<i>1</i>	<i>2</i>	<i>3</i>
1. Belief in Public Service	-	-	-
2. Sense of Calling to the Field	.457*	-	-
3. Career Commitment	.540*	.407*	-

\* $p < .01$  (2-tailed)

Participants were asked their career intentions immediately following graduation as well as their long-term professional goals. In response to immediate intentions after graduation, 18 participants plan to pursue a graduate/terminal degree in athletic training (15.7%), 41 intend to practice as an athletic trainer (35.7%), and 46 indicated that they plan to pursue a graduate/terminal degree in a field other than athletic training (40.0%). With respect to long-term professional goals, which was described as 10+ years from now, 46.1% of participants ( $n = 53$ ) envision themselves continuing to practice clinically as an athletic trainer and 5.2% ( $n = 6$ ) will pursue work in higher education as part of an athletic training education program. However, 25.2% ( $n = 29$ ) of participants plan to seek employment in a profession not related to athletic training.

A one-way ANOVA was calculated to compare immediate career intention groups on professional socialization and career commitment. Participants that indicated they planned to pursue further education in athletic training or practice as an athletic trainer were compared to participants whose immediate goals were unrelated to athletic training. There was a statistically significant difference found between groups on scores for sense of calling to the field and career commitment scale. However, there was no difference found on the belief in public service subscale (see Table 4). Additionally, there were statistically significant differences in scores for all three scales for long-term professional goals (Table 5). The most notable differences were on

the career commitment scale in which participants that plan to remain in the profession for ten or more years had a total mean score of 30.44 ( $SD = 3.31$ ) compared to a total mean score of 22.83 ( $SD = 5.56$ ) for participants that plan to leave the profession.

*Table 4*

*One-Way ANOVA of Professional Socialization and Career Commitment by Immediate Career Intentions*

	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig.</i>
Belief in Public Service				
Remain in athletic training	15.54	3.06		
Pursue goals unrelated to athletic training	14.70	3.63		
Total	15.17	3.33	1.68	.198
Sense of Calling to the Field				
Remain in athletic training	18.80	2.29		
Pursue goals unrelated to athletic training	17.17	2.90		
Total	18.32	2.62	4.54	.035*
Career Commitment				
Remain in athletic training	29.76	4.60		
Pursue goals unrelated to athletic training	24.33	5.59		
Total	27.38	5.72	29.89	< .001*

\* $p < .05$

Table 5

*One-Way ANOVA of Professional Socialization and Career Commitment by Long-term Professional Goals*

	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig.</i>
Belief in Public Service				
Remain in athletic training	15.78	3.03		
Pursue goals unrelated to athletic training	14.28	3.42		
Total	15.28	3.23	4.39	.039*
Sense of Calling to the Field				
Remain in athletic training	19.05	2.29		
Pursue goals unrelated to athletic training	17.69	2.29		
Total	18.60	2.36	6.90	.039*
Career Commitment				
Remain in athletic training	30.44	3.31		
Pursue goals unrelated to athletic training	22.83	5.56		
Total	27.93	5.50	64.49	< .001*

\*p < .05

**Participant Views on the Influence of Clinical Experiences**

The majority of participants reported that their clinical experiences influenced their post-graduation decisions (83.5%). Participants also reported that their clinical experiences increased their understanding of the athletic training profession (96.5%) and have prepared them to meet the demands of the profession (86.1%). In addition, 76.5% of participants indicated that their clinical experiences had increased their commitment to the athletic training profession.

Analysis of open-ended responses further assessed participants career intentions and the influence of the clinical education experience (Appendix C). A common theme that surfaced among responses was hands-on or real-life experiences. Participants noted the ability to engage in hands-on experiences at the clinical site as a factor that increased both their understanding of athletic training ( $n = 29, 32.2\%$ ) as well as their preparedness to meet the demands of the profession ( $n = 28, 37.3\%$ ). Hands-on experience was also credited for being either the most positive or negative aspect of the clinical experience. Participants that were given more

opportunities to apply their knowledge and skills at the clinical site considered this to be a positive attribute ( $n = 40, 38.1\%$ ) while the participants that lacked these opportunities noted it as an area needing improvement to enhance the clinical experience ( $n = 20, 21.7\%$ ).

Another theme that emerged was the role of the clinical preceptor. Participants noted that both the relationship with the clinical preceptor as well as their willingness to teach and engage students is an important factor in their clinical experience. The attitudes and behaviors expressed by the preceptor influence the students' educational experience and impact their desire to enter the profession as well as their preparedness. Participants that had preceptors that lacked an interest in teaching or failed to provide autonomous experiences expressed negative views of their clinical experiences. One participant stated that their clinical experiences would have been better if they had "a great preceptor that is kind, eager to teach and easy to communicate". On the other hand, there were participants that stated they had good relationships with their preceptors ( $n = 24, 22.9\%$ ) and were provided valuable learning opportunities and mentorship which influenced their development of knowledge, skills, and overall understanding of athletic training. For example, a participant responded that the most positive aspect of their clinical experience "...would have to be my preceptors. I had the freedom to practice my skills while getting good constructive feedback".

In addition to the hands-on experiences and clinical preceptors, being exposed to a variety of clinical rotations was important to participants. For many students, the diversity of settings helped them to decide what they would like to pursue upon graduation ( $n = 27, 32.1\%$ ) as they were able to see what aspects of each setting they like and dislike. Experience with diverse settings was also a common theme that emerged in response to participants preparedness and understanding of the profession. Participants that were placed in multiple different settings felt

more prepared than participants that did not have an opportunity to experience the settings that interest them most.

Participant responses on the open-ended questions of the survey indicate that experiences at the clinical site may have a greater influence on students' attitudes and views of athletic training than the type of clinical education model. These attitudes towards the profession subsequently effect students' intentions to pursue a career in athletic training.

### **Discussion**

The purpose of this study was to determine how the type of clinical education model used in athletic training programs relates to the development of professional socialization and career commitment. The first aim examined the influence of clinical integration and clinical immersion on professional socialization and career commitment in final year athletic training students. The findings indicate no statistically significant difference between athletic training students that had only experienced clinical integration as compared to students that had one or more clinical immersion experiences on either professional socialization or career commitment. The lack of significant findings suggests that other factors may have a greater influence on the development of professional socialization and career commitment such as students' individual experiences and involvement while at the clinical site rather than the type of clinical education model.

The second aim explored athletic training students' views on the influence of their clinical experiences on career intentions and commitment. Several open-ended questions were included on the survey instrument to explore participants' viewpoints on the most positive and negative aspects of their clinical experiences and how those experiences have impacted their decisions to remain in or leave the athletic training profession. Common themes found among the responses highlighted the importance of hands-on experiences and preceptor relationships. For example, one participant expressed that the best part of the clinical experience was "being able to

work with patients and see how the knowledge I learn in the classroom translates into real-world situations”. However, a different participant noted the hands-on experience aspect of the clinical rotation as an area needing improving stating, “I wish that I had more time being able to integrate myself in the clinical experiences and less time as an observer”. This is consistent with the findings of Young et al. (2013) which found that authentic learning experiences contributed to students’ decisions to either persist or leave an athletic training program.

There are a number of factors that impact professional socialization and career commitment in any healthcare profession. Currently, athletic training programs utilize varying models to deliver clinical experiences to students. Many athletic training programs are looking to add clinical immersion experiences to their curriculums in accordance with the new standards for accreditation that will be implemented by CAATE in 2020. However, there continues to be a lack of evidence of the effectiveness of this type of model in athletic training. Prior to education reform in 2004, there were 2 routes to become eligible for certification for prospective athletic trainers: curriculum-based or the internship route. The curriculum-based route to certification is similar to the current standards but there was an additional requirement that students complete a minimum of 800 clinical hours (Starkey & Henderson, 1995). The internship route required completion of a set of core courses and a minimum of 1500 clinical hours but enrollment in an accredited program was not mandatory (Starkey & Henderson 1995). However, Turocy, Comfort, Perrin, and Gieck (2000) found that the number of clinical experience hours did not influence performance on the BOC exam. This is consistent with the findings of the current study which indicates the amount of time spent at the clinical site has less of an influence on students as the quality of their experiences.

Clinical immersion practices have been utilized for many years in the education curriculums of other healthcare professions such as nursing and physical therapy. For each of

these healthcare professions, clinical immersion experiences are typically administered towards the end of the curriculum to help facilitate students transition to practice (Diefenbeck, Plowfield, & Herrman, 2006; Commission on Accreditation in Physical Therapy Education, 2017). The use of clinical immersion experiences is a relatively new concept in accredited athletic training programs and it may be several years before its usefulness and efficacy is fully understood in athletic training. Nevertheless, athletic training programs may look to nursing or physical therapy education for guidance in sequencing of clinical education. Programs should look to sequence clinical education experiences so that clinical integration is implemented early in the program and clinical immersion experiences take place in the student's final year as they prepare to transition into practice. This will provide students an opportunity to gain more knowledge and skills prior to the immersion experience and grant them the ability to be more autonomous at the clinical site.

Regardless of the chosen mode of clinical education, programs must continue to enhance students' educational experiences. Students are the best resource for feedback on clinical experiences and they have demonstrated that this is an important part of their education. For example, when given the opportunity to express the most positive aspects of their clinical experiences, 91.3% of participants provided an open-ended response. In addition, 80.0% of participants provided an open-ended response describing what could have made their clinical experiences better.

The education provided to students in athletic training programs should be viewed as an investment in the profession. Further research is needed to evaluate the influence of clinical education models on students' perceptions of preparedness as well as differences in opportunities for hands-on experiences. With nearly half of participants in this study intending to pursue opportunities unrelated to athletic training it is imperative that we continue to evaluate the most effective strategies for preparing and retaining athletic trainers.

## CHAPTER II

### DISSEMINATION

Initial dissemination of this research is to deliver a report to the stakeholders of athletic training education including program directors and clinical education coordinators. These stakeholders are positioned to directly impact the delivery of clinical experiences in athletic training education programs. Athletic training program directors have a myriad of responsibilities which include curriculum develop and assessment as well as maintaining program accreditation. Clinical coordinators also have numerous duties such as selecting and assessing clinical sites and preceptors, training preceptors, student clinical placements, and various administrative tasks. By presenting the findings of this research to athletic training educators, there will be an opportunity for these individuals to make evaluations of their program's current clinical education practices and devise strategies for enhancement. I plan to initially share the findings of this study via email with the program directors and clinical coordinators within Districts Three and Four of the NATA that assisted with the study. The report shall include a review of the purpose and aims as well as the findings and recommendations for the implementation of athletic training clinical experiences. Dissemination will also include a one-page summary of the findings along with recommendations for application (Appendix D).

#### **Summary of Study**

Professional athletic training education programs are charged with the development of knowledgeable and skilled students that are prepared to enter the athletic training profession. Therefore, as educators it is imperative to utilize innovative and engaging teaching strategies based on best practices to achieve positive outcomes in both the classroom and clinical settings.

The purpose of this research was to identify effective strategies for implementing clinical education experiences in athletic training programs that may result in greater commitment to the profession. In an effort to identify the best methods for delivery of clinical experiences, this study aimed to:

- Determine the influence of clinical immersion and clinical integration experiences in fostering professional socialization and professional commitment in athletic training students.
- Explore athletic training students' views on the role of clinical experiences on their career goals and commitment.

### **Methods**

A survey was administered to final year athletic training students in Districts Three and Four of the NATA to evaluate professional socialization and career commitment. Participants included students at both the bachelor's and professional master's levels. Professional socialization was evaluated using two dimensions of Hall's Professionalism Scale: belief in public service and sense of calling to the field (Snizek, 1972). A separate 7-item measure was used to assess participants attitudes towards the athletic training profession and their career commitment (Blau, 1988). In addition to the two scales, participants were asked to share their immediate and long-term professional goals, describe how their clinical experiences have influenced their post-graduation decisions, and describe how their clinical experiences have affected their preparedness and commitment to the athletic training profession.

### **Research Findings**

There were 115 participants included in the survey. The majority of participants were between the ages 21-23 (83.5%), mostly female (71.3%), and enrolled in an undergraduate athletic training program (79.1%). Only 35.6% of participants had completed at least one clinical

immersion rotation. Mean scores were calculated to compare students that had clinical integration experiences only to those that had clinical immersion only or a combination of both. The findings of this study indicate that there are no significant differences between clinical education models with respect to professional socialization and career commitment.

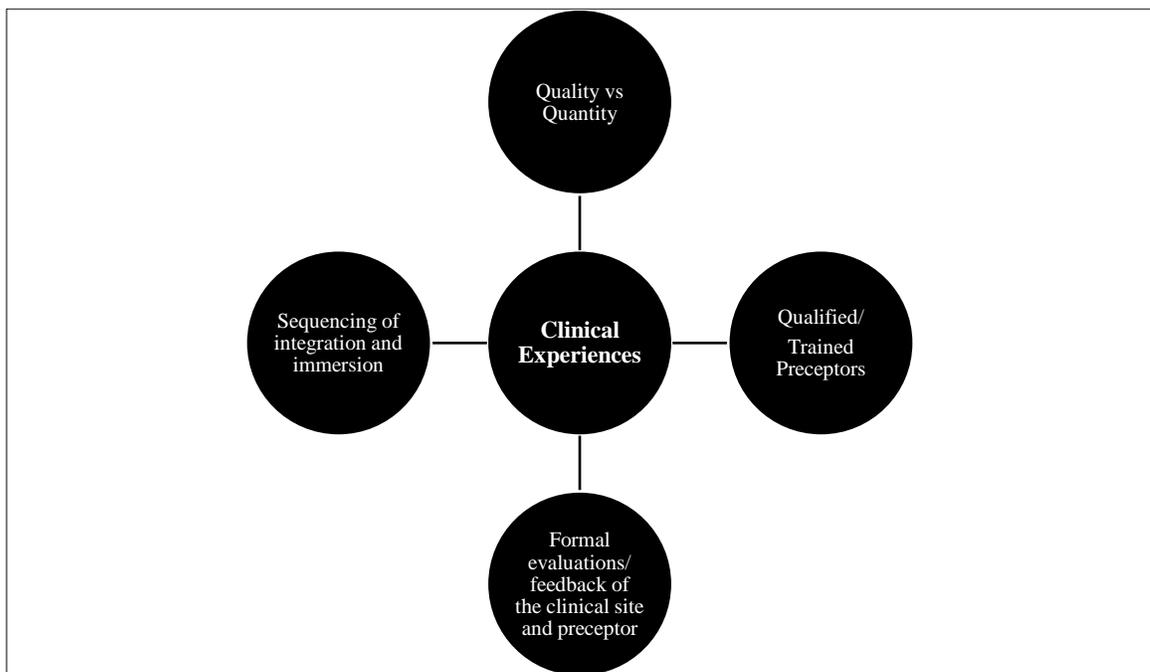
A little more than half (51.3%) of the participants intend to practice as an athletic trainer or pursue additional education in the field upon graduation. Clinical experiences were reported as an influencing factor in participants post-graduation decisions (83.5%) in addition to contributing to students understanding of the profession (96.5%), commitment (76.5%), and feelings of preparedness to meet the demands of the athletic training profession (86.1%).

Participants' open-ended responses revealed several common themes. First, students place a high value on the opportunities to gain hands-on experiences in the clinical setting. Regardless of the type of educational model employed, students that had more opportunities to apply their knowledge and skills expressed greater satisfaction with their clinical experiences and felt more prepared to meet the demands of the profession. Secondly, the role of the clinical preceptor is important to the professional development of students. Students seek preceptors that show an interest in teaching and provide students with autonomous experiences. Another common theme was diversity of experiences. Participants enjoyed having clinical rotations in a variety of settings and felt that it helped them feel more prepared to enter the profession and decide which setting they felt was most fitting for them personally. However, some students stated they did not feel they had enough clinical rotation options or they were not exposed to settings that they were interested in pursuing as a career.

### **Recommendations**

The purpose of this study was to determine if the type of clinical education model used effects the professional socialization and career commitment of athletic training students. While

no significant differences were found in this study, the findings still present opportunities to explore strategies to improve the athletic training clinical experience. Students indicate that the clinical experience influences their career intentions but only about half intend to remain in athletic training. The findings of this study coupled with previous research on clinical education suggest that improvements of the clinical experiences of athletic training students are necessary. With a renewed focus on enhancing clinical education there is an opportunity to both improve students' educational experience as well as their commitment to athletic training. Recommendations that may assist athletic training educators in the assessment and improvement of clinical education curriculum include: focusing on quality versus quantity of clinical experiences, improved preceptor selection and training, using formal evaluations and feedback for clinical site and preceptor improvements, and effective sequencing of clinical integration and immersion experiences (Figure 1).



*Figure 1. Recommendations for Improved Clinical Experiences.*

## **Quality vs Quantity of Clinical Experience**

When evaluating students' clinical experiences, greater focus should be placed on the quality of the experience rather than the amount of time spent at the clinical site. Students completing a clinical immersion rotation at a site that does not foster their educational development or provide hands-on or autonomous experiences has no greater advantage over the student completing a traditional clinical integration rotation. Programs should ensure that the selected clinical sites and preceptors are including athletic training students in the daily tasks and responsibilities of a certified athletic trainer and are providing opportunities for direct patient care. This can be accomplished by evaluating the amount of clinical rotation proficiencies and objectives completed in real-time versus simulation for each student and/or clinical site. While there may be limitations in athletic training students' abilities, students should not spend the majority of their time at the clinical site as an observer. Athletic training educators should work with clinical preceptors to identify any potential barriers that may inhibit the integration of athletic training students such as scheduling, knowledge and skill level, or motivation.

## **Preceptor Selection and Training**

The clinical preceptor plays a vital role in the education of athletic training students. When selecting individuals to serve as clinical preceptors, programs must consider more than just the credentials, knowledge, and experience of the health care professional. The clinical site must be one that fosters a learning environment. Selected preceptors should express enthusiasm for teaching and mentoring, have strong communication skills, an ability to provide constructive feedback, and a positive attitude towards the profession. Additionally, preceptors' attitudes and beliefs about athletic training are critical components in students professional socialization development. Therefore, it is important to select individuals that are passionate about athletic training and promote the profession. Preceptors that possess these characteristics will have a

greater ability to develop competent athletic training students and are more likely to engage the student and provide autonomous learning experiences. The process for identifying clinical preceptors should be selective and programs should consider the use of a standardized screening process to create consistent experiences across clinical rotations.

### **Evaluations and Feedback**

Athletic training programs currently perform routine evaluations of students, program faculty, clinical preceptors, and clinical sites. These evaluations can produce valuable feedback highlighting the positive aspects of the program and areas needing improvement. When evaluating clinical preceptors and sites, program leaders should place additional focus on the volume of hands-on experiences and direct patient care. Students have expressed that the ability to apply knowledge and skills in real-time is important to their learning, development, and attitude towards the profession. Programs should include evaluation measures that allow students to report on the frequency in which they are able to apply hands-on skills and opportunities for autonomous experiences. The clinical education coordinator should use this feedback to make determinations about the effectiveness of the clinical preceptor and/or clinical site.

### **Sequencing of Integration and Immersion Experiences**

The new 2020 Standards for Accreditation set forth by CAATE will require at least 4 continuous weeks of a clinical immersion experience. The increased time at the clinical site through clinical immersion experiences gives greater exposure to the daily roles and responsibilities of an athletic trainer. However, careful consideration should be given to the timing and sequencing of clinical integration and clinical immersion in the overall curriculum. Students spending 40 or more hours a week at their clinical rotation with only minimal classroom knowledge and skills will not benefit as much from an immersion experience as students nearing the completion of an athletic training program. As program leaders look to meet the CAATE

requirement for clinical immersion they should consider placing the immersion experience towards the end of the curriculum. This is consistent with the education practices of other healthcare professions such as physical therapy. The current Standards and Required Elements for Accreditation of Physical Therapist Education Programs requires both integrated and full-time immersion clinical education experiences, with the immersion experience occurring after the completion of the professional curriculum (CAPTE, 2017). By following this model, athletic training students would complete the immersion experience after they possess the knowledge and skills in the major content areas of athletic training (i.e. prevention, clinical evaluation, therapeutic interventions, etc.). Sequencing the clinical education curriculum in this manner puts students at an advantage because they can utilize a greater range of skills and have the ability to be more involved with patient care.

Further research is needed to explore the effectiveness of both clinical educational models in developing professional socialization and commitment to athletic training. However, athletic training educators should continue to evaluate the most effective strategies to meet the educational needs of their students. Athletic training programs should continue to encourage student engagement at the clinical site and consistently screen and evaluate clinical preceptors as they play a significant role in students' perceptions of the profession and readiness to enter the field.

### CHAPTER III

#### ACTION PLAN

The findings of this study will contribute to clinical education best practices and drive future standards for athletic training programs in order to improve the professional socialization of students and commitment of athletic training professionals. All athletic training programs are required to offer students clinical experiences but previously there has been little evidence available to suggest the best methods for delivery. The upcoming transition to the professional master's coupled with new 2020 standards for the accreditation of professional athletic training programs puts many educators in a unique position in which they can make significant and impactful changes to their education programs. The results of this study did not show any significant differences between clinical integration and clinical immersion on professional socialization or career commitment. However, the study did affirm the importance of clinical education and uncovered additional areas of focus that may affect athletic training students' professional socialization and commitment to the profession.

As outlined in Chapter II, I plan to disseminate the findings of this study to primary stakeholders including program directors, clinical coordinators, and preceptors. This will be accomplished through direct dissemination of the report and presenting at professional conferences and meetings. In an effort to reach a larger audience of stakeholders, I plan to submit my research findings to the NATA Research and Education Foundation's Free Communications Program for June 2020. The Free Communications Program provides an opportunity for a poster presentation during the NATA Clinical Symposia. The NATA Clinical Symposia is attended by thousands of athletic trainers and educators. Not only are the research findings important to

educators but many athletic trainers also serve as clinical preceptors or faculty members who play a significant role in the educational experiences of students. Additional opportunities to present findings include the annual Athletic Trainers' Educators Conference as well as more local athletic training organizations such as the Mid-Atlantic Athletic Trainers' Association Symposium and the North Carolina Athletic Trainers' Association Symposium.

Dissemination may also include a direct report of the findings to members of the CAATE leadership. CAATE is responsible for the development of the *Standards for Accreditation of Professional Athletic Training Programs*, which athletic training programs must comply with in order to maintain accreditation (CAATE, 2012). Dissemination of study results to this organization could influence the development of future standards or modifications to clinical experience requirements. Submission of an opinion editorial to the *NATA News* presents another opportunity to reach a majority of stakeholders. The *NATA News* is an athletic training magazine that is distributed monthly to all members of the NATA which totals more than 45,000 members (National Athletic Trainers' Association [NATA], 2019). Through this avenue, findings could be shared with far more stakeholders nationally than just the individuals that attend professional conferences and meetings.

### **Short-Term Plans**

As a certified athletic trainer, I intend to immediately utilize the information brought forth by this study to guide my role as a clinical preceptor and mentor to athletic training students. I am a clinical preceptor and I also supervise other certified athletic trainers that are preceptors. My department receives students from two athletic training programs and has students completing both clinical integration and clinical immersion experiences. In an effort to make a positive impact on the students we serve, I plan to evaluate our current teaching practices and the hands-

on opportunities we offer our students. In addition, I will work to ensure that our students are engaged by taking advantage of teachable moments in the clinical setting.

Hands-on experiences and student engagement at the clinical site are two specific areas that research has indicated to be important to the athletic training student's clinical experience. This can be accomplished by having an initial conversation with the athletic training student at the start of their rotation to identify areas of strengths and weaknesses in regards to their clinical skills. We can then use this information to provide additional opportunities to take advantage of the student's strengths by allowing them to use those skills with patients in real-time. This will not only help them to become more proficient, but also enhance their confidence in working with patients. Down-time at the clinical site can be used to focus on the students' weaknesses. As preceptors, we can use this time to help the student practice and develop their hands-on skills. This time can also be used to discuss current events and issues related to the field which allows the student to gain the insight from the preceptor on relevant topics.

### **Long-Term Plans**

Long-term plans for professional impact include additional research examining the feasibility of implementing valuable clinical immersion experiences in athletic training programs. This would include identifying any barriers that may inhibit positive learning environments for students. The use of a clinical immersion education model has the potential to provide a more enriching experience for athletic training students and could be combined with clinical integration experiences for a well-rounded curriculum. However, the clinical site and preceptors play a major role in the successful implementation of either model. Therefore, further research is needed to help develop strategies for recruiting and training dedicated preceptors.

Preceptors have a direct impact on students' development of professional socialization and the behaviors they model can influence a student's commitment to the profession either

positively or negatively. Through careful and deliberate selection and training, programs can pair students with knowledgeable and skilled health care professionals that value students' education, demonstrate positive attitudes towards the profession, and possess the ability to effectively teach and communicate with students. Therefore, the next step in the long-term action plan would be the development of a standardized screening instrument for athletic training clinical preceptors. This tool would be used by athletic training programs and would provide the ability to set a standard for quality clinical experiences.

### **Preceptor Screening Instrument**

While there are minimum requirements set by CAATE for the selection of preceptors, there currently is no standardized screening instrument widely used in athletic training. Cotter, Eckardt, and Moylan (2018) developed the Cotter Preceptor Selection Instrument (CPSI) designed for the selection of nursing preceptors. The CPSI evaluates 14 attributes on a scale of 1 to 3 and requires that the individual achieve a minimum score of 35 to be accepted as preceptor (Cotter, Eckardt, & Moylan, 2018).

Currently, there is little research on the effectiveness of this instrument's impact on student experiences due to its recent development. However, it does provide a framework for other healthcare professions that utilize preceptors for clinical education. The screening instrument for athletic training preceptors should include evaluation of clinical competence, communication skills, leadership, commitment, attitudes towards the profession and clinical site, and involvement in professional development. A standardized screening instrument for athletic training preceptors will raise the standards of clinical education and may result in more positive clinical experience outcomes.

## **Preceptor Training for Student Engagement**

Following the selection of highly qualified clinical preceptors, it is necessary to provide the selected individuals with proper training. Athletic training programs currently provide training to clinical preceptors that orient them with the program and outline their roles and responsibilities. However, the next step of my long-term action plan would be to develop guidelines and strategies for preceptors that would teach them not only how to foster good relationships with students but how to most effectively engage and integrate them into the clinical site. Training would include strategies for identifying students' goals, interests, strengths, and weaknesses and then using this information to create meaningful clinical experiences. It would also provide suggestions for effective scheduling and use of down-time or non-peak hours. The training guidelines would initially be used among my athletic training staff but could be further developed as a workshop or in-service and later incorporated into athletic training programs' overall preceptor training.

Previous research has identified the importance of clinical education in athletic training however, there is a continued need to concentrate on effective strategies for improved commitment to the profession. Improved commitment becomes difficult to achieve when students are placed in environments that do not foster professional socialization. By focusing on the quality of clinical experiences and the qualifications of the individuals responsible for teaching students in the clinical setting it is possible to create effective change in athletic training education.

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APPENDIX A  
SURVEY INSTRUMENT

**CONSENT**

You are invited to participate in an online survey examining the influence that clinical education models may have on professional socialization and career commitment in athletic training. This research project is being conducted by Janah Fletcher, a doctoral candidate at the University of North Carolina at Greensboro. The survey will take 10-15 minutes to complete.

Your participation in this study is completely voluntary and you may discontinue your participation at any time, for any reason, without penalty.

Research studies are designed to obtain new knowledge. It is expected that this research will help identify effective strategies for the implementation of clinical education but there is no guarantee that you will personally experience benefits from participating in this study. Other than the time you spend on this survey, there are no foreseeable risks involved with this study.

There is no guaranteed compensation for participation in this study. However, upon completion of the survey you will have the opportunity to enter into a drawing to receive 1 of 10 Amazon gift cards valued at \$25 each. If you choose to participate in the drawing you will be asked to provide your email address.

All information obtained in this study is strictly confidential unless disclosure is required by law. Your survey responses will be confidential and the survey will not contain information that will personally identify you. Data will be stored in an electronic password protected format. However, absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. If you choose to participate in the drawing upon completion of the survey your email address will be requested. However, your email address will be stored separately from any data collected in the study.

If you have questions or want more information about this study, please contact Janah Fletcher (Principal Investigator) at [jefletch@uncg.edu](mailto:jefletch@uncg.edu) or Pam Brown (Faculty Advisor) at [plkocher@uncg.edu](mailto:plkocher@uncg.edu).

If you have any concerns about your rights or how you have been treated in this study please contact the Office of Research Integrity at UNCG at 1-855-251-2351.

Clicking the " Agree" button below indicates that:

- You have read the above information
- You voluntarily agree to participate
- You are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by clicking "Disagree"

- Agree
- Disagree

**DEMOGRAPHICS**

1. To which gender do you identify most?

- Male
- Female
- Other \_\_\_\_\_

2. Race/Ethnic Background

- White
- Black or African American
- Hispanic, Latino, or Spanish Origin
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other \_\_\_\_\_

3. What is your age? \_\_\_\_\_

4. Please select the response that best reflects the athletic training program in which you are currently enrolled.

- Accredited bachelor's
- Accredited professional master's
- My program is not currently accredited
- I am not enrolled in an athletic training program

5. I am a senior and/or final year student in an accredited athletic training program.

- Yes
- No

6. Please indicate the name and location of your institution.
7. Please indicate when you expect to complete/graduate from your athletic training program.

- Fall 2018
- Spring 2019
- Summer 2019
- Other \_\_\_\_\_

### **CLINICAL EDUCATION**

The following questions seek to understand your clinical education experiences. Please use the descriptions below to assist in answering the questions relative to your athletic training clinical rotations.

Clinical Integration: Traditional clinical education model in which classes and clinical experiences are simultaneous. Typically, classes are held during the morning and clinical experiences are in the afternoons and on weekends. Students often average around 20 hours per week at the clinical site.

Clinical Immersion: A practice-intensive clinical education model. Students participate in the full-time day-to-day role of an athletic trainer spending an average of 40 hours per week at the clinical site. There is typically no simultaneous classroom instruction but the student may be enrolled in an online course.

8. How many assigned clinical rotations have you completed?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

**9.** In which settings have you completed a clinical rotation? Check all that apply.

- Collegiate athletics
- High school
- Professional sports
- Clinic (rehabilitation, orthopedic, and/or sports medicine)
- Hospital
- Military
- Industrial
- Other \_\_\_\_\_

**10.** Please indicate which clinical education models you have experienced in your athletic training program.

- Clinical integration only
- Clinical immersion only
- Both integration and immersion

**11.** How many clinical integration rotations have you completed?

- None
- 1
- 2
- 3
- 4
- 5 or more

**12.** What was the longest duration of time spent in a clinical integration rotation?

- 1-4 weeks
- 5-8 weeks
- 9-12 weeks
- 13-16+ weeks

I have not completed a clinical integration rotation

**13.** How many clinical immersion rotations have you completed?

None

1

2

3

4

5 or more

**14.** What was the longest duration of time spent in a clinical immersion rotation?

1-4 weeks

5-8 weeks

9-12 weeks

13-16+ weeks

I have not completed a clinical immersion rotation

### **PROFESSIONAL SOCIALIZATION**

The following questions ask about your attitudes and behaviors as a member of the athletic training profession. There are five possible responses to each statement. Please rate how much you agree or disagree with each statement by selecting the appropriate response. Some statements may seem similar or appear to repeat however, please provide a response for each statement.

**15.** Other professions are actually more vital to society than mine.

Strongly  
agree

Somewhat agree

Neither agree or  
disagree

Somewhat  
disagree

Strongly  
disagree

**16.** I think that my profession, more than any other, is essential for society.

Strongly  
agree

Somewhat agree

Neither agree or  
disagree

Somewhat  
disagree

Strongly  
disagree

**17.** People in this profession have a real "calling" for their work.

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>18.</b> The importance of my profession is sometimes over stressed.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>19.</b> The dedication of people in this field is most gratifying.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>20.</b> Some other occupations are actually more important to society than mine.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>21.</b> It is encouraging to see the high level of idealism maintained by the people in this field.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>22.</b> Most people would stay in the profession even if their incomes were reduced.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>23.</b> If ever an occupation is indispensable, it is this one.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
<b>24.</b> There are very few people who don't really believe in their work.				

Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
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**PROFESSIONAL COMMITMENT**

The following statements represent feelings that an individual might have towards their profession. With respect to your own feelings about the athletic training profession please indicate how much you agree or disagree with each statement by selecting the appropriate response.

**25.** If I could go into a different profession other than the athletic training which paid the same, I would probably take it.

- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
26. I definitely want a career for myself in the athletic training profession.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
27. If I could do it all over again, I would not choose to work in the athletic training profession.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
28. If I had all the money I needed without working, I would probably still continue to work in the athletic training profession.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
29. I like the athletic training profession too well to give it up.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
30. This is the ideal profession for a life's work.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
31. I am disappointed I ever entered the athletic training profession.
- |  |                |                |                           |                   |                   |
|--|----------------|----------------|---------------------------|-------------------|-------------------|
|  | Strongly agree | Somewhat agree | Neither agree or disagree | Somewhat disagree | Strongly disagree |
|--|----------------|----------------|---------------------------|-------------------|-------------------|

### **CAREER INTENTIONS & INFLUENCE OF CLINICAL EDUCATION**

The following questions seek to gain your views and opinions of your clinical education experiences. Please reflect upon your clinical rotations as you answer each question.

32. What are your immediate intentions upon graduating from your athletic training program (within 1 year of graduation)?

- Pursue a graduate/terminal degree in athletic training
- Pursue a graduate/terminal degree in a field other than athletic training
- Practice as an athletic trainer

- Seek employment in a profession other than athletic training
- Undecided
- Other \_\_\_\_\_

**33.** What are your long-term professional goals (10+ years from now)?

- Continue to practice/advance as an athletic trainer (clinically)
- Work in higher education as part of an athletic training education program
- Seek employment in a profession not related athletic training
- Unsure
- Other \_\_\_\_\_

**34.** Have your clinical education experiences influenced your post graduation decision? Please explain.

- Yes \_\_\_\_\_
- No \_\_\_\_\_

**35.** Have your clinical education experiences increased your understanding of the athletic training profession? Please explain.

- Yes \_\_\_\_\_
- No \_\_\_\_\_

**36.** Do you feel your clinical education experiences have prepared you to meet the demands of the athletic training profession? Please explain.

- Yes \_\_\_\_\_
- No \_\_\_\_\_

**37.** Do you feel your clinical education experiences have increased your commitment to the athletic training profession? Please explain.

- Yes \_\_\_\_\_
- No \_\_\_\_\_

**38.** What were the most positive aspects of your clinical experiences?

**39.** What, if anything, would have made your clinical experiences better?

Thank you for taking the time to complete this survey. If you would like to be entered into a drawing to win 1 of 10 Amazon gift cards valued at \$25 each please select the appropriate response below. If you choose to enter the drawing you will be redirected to another page to provide your email address.

**40.** Would you like to be entered into the drawing?

Yes

No

APPENDIX B  
RECRUITMENT EMAILS

**Initial Email Correspondence to Program Directors and Clinical Coordinators**

Dear Athletic Training Education Program Director or Clinical Coordinator,

My name is Janah Fletcher and I am a doctoral student at the University of North Carolina at Greensboro. I am completing a research project to fulfill requirements of my dissertation and would like to invite your athletic training students to participate in my study. The purpose of the study is to examine the influence that clinical education models may have on professional socialization and career commitment in athletic training. The study has been approved by the University of North Carolina at Greensboro Institutional Review Board.

I am seeking **final year athletic training students** to participate in a web survey that should only take 10-15 minutes to complete. There are no foreseeable risks associated with your students' participation in this study and their participation is completely voluntary.

If you agree to have your students participate in this study, I kindly request that you:

1. Send the following student message and link to the survey to your **final year athletic training students**.
2. Provide the total number of final year athletic training students that the message and survey were forwarded to.

If your program is currently transitioning from the bachelor's to master's level, please be sure to include all students that are in their final year of the athletic training program.

I would greatly appreciate any assistance you may offer. My hope is that this study will identify effective clinical education strategies that will improve the education and experiences of athletic training students and enhance the athletic training profession. If you would like to receive a summary of the results obtained from this study, please email me so that I may share them with you upon completion.

Thank you for your time and consideration.

Sincerely,

Janah Fletcher, MS, LAT, ATC  
Doctoral Candidate, EdD in Kinesiology  
University of North Carolina at Greensboro

## **Follow-up Email Correspondence to Program Directors and Clinical Coordinators**

Dear Athletic Training Education Program Director or Clinical Coordinator,

I recently contacted you regarding a research study I am completing that will examine the influence that clinical education models may have on professional socialization and career commitment in athletic training. My hope is that this study will identify effective clinical education strategies that will improve the education and experiences of athletic training students and enhance the athletic training profession.

I am seeking **final year athletic training students** to participate in a web survey that should only take 10-15 minutes to complete. If you have already forwarded the survey to your students I would like to ask that you remind them to complete it, if they so choose. I greatly appreciate your assistance as I know your time is valuable.

If you have not yet forwarded the message and survey to your students and agree to have them voluntarily participate, I kindly request that you:

1. Send the following student message and link to the survey to your **final year athletic training students**.
2. Provide the total number of final year athletic training students that the message and survey were forwarded to.

I am hopeful that you will be able to assist me in the recruitment of participants. I would be happy to send you a summary of the results at the conclusion of this study.

Thank you again for your time and consideration.

Sincerely,

Janah Fletcher, MS, LAT, ATC  
Doctoral Candidate, EdD in Kinesiology  
University of North Carolina at Greensboro

## **Recruitment Message to Student Participants**

Dear Athletic Training Student,

My name is Janah Fletcher and I am a doctoral student at the University of North Carolina at Greensboro. I am completing a research project to fulfill requirements of my dissertation and would like to invite you to participate in my study. The purpose of the study is to examine the influence that clinical education models may have on professional socialization and career commitment in athletic training. My goal is to identify effective clinical education strategies that will improve the education and experiences of athletic training students and enhance the athletic training profession.

If you choose to participate in the study, you may access the survey at the link below. The survey will take 10-15 minutes to complete. Upon completion of the survey you will have the opportunity to enter a drawing to receive 1 of 10 Amazon gift cards valued at \$25 each. Drawings will take place on November 30, 2018.

Your participation in this study is completely voluntary and you may discontinue your participation at any time, for any reason, without penalty. Survey responses will be confidential, and the survey will not contain personally identifiable information.

To access the survey please click here or copy and paste the following link into your web browser. Survey Link: [Click Here to Begin the Survey](#)

If you have any questions, please email me at [jefletch@uncg.edu](mailto:jefletch@uncg.edu).

Thank you for your time!

Sincerely,

Janah Fletcher, MS, LAT, ATC  
Doctoral Candidate, EdD in Kinesiology  
University of North Carolina at Greensboro

APPENDIX C

SAMPLE OF OPEN-ENDED RESPONSES

<i>Have your clinical education experiences influenced your post-graduation decision? Please explain.</i>	
<b>Post-graduate degree</b>	I think that having a Master's would allow me to accept positions at a slightly higher level institution.
<b>Stay in athletic training</b>	My rotations have solidified that I want to be a clinically practicing AT
<b>Desired athletic training setting</b>	I entered the athletic training world thinking I wanted to work in the performing arts realm, but figured out that I really like the high school setting the most.
<b>Pursue another field</b>	I enjoyed the clinical setting over the others I experienced and want to further my education within this setting by continuing my education in Physical.
<b>Time commitment/salary</b>	Realizing the amount of time and effort put into the job is not worth the pay. The clinical hours really burned me out and made me not want to continue.
<b>Plans unchanged</b>	My post-graduation plans were to always get a job in the field.

<i>Have your clinical education experiences increased your understanding of the athletic training profession? Please explain.</i>	
<b>Hands-on experience</b>	Hands-on learning has helped immensely. Classroom learning is important, but putting it into action hands-on really makes it click.
<b>Greater understanding of the profession</b>	I had very little knowledge of athletic training before my clinical education. I never really understood how much we actually do.
<b>Diversity of settings</b>	The variety of different setting opened my eyes to how many different people ATs can work with.

<i>Do you feel your clinical education experiences have prepared you to meet the demands of the athletic training profession? Please Explain.</i>	
<b>Hands-on experiences</b>	I think the immense hours put in have definitely prepared me clinically because I had so much hands on/real experience outside of the classroom.
<b>Greater understanding of the profession</b>	My clinical education has shown me what the daily life of an athletic trainer really looks like.
<b>Diversity of settings</b>	I've had a variety so I've seen many different placements and can now think creatively about the wide variety of experiences.
<b>Feel fully prepared</b>	Yes I feel prepared for when I graduate to be successful at my future job.
<b>Not confident</b>	I believe that I am prepared to meet the demands, however I also feel that due to my extensive time working in a college setting I may lack skills needed in other settings.
<b>Still more to learn</b>	I do not believe that experiences alone can prepare anyone for this profession, it kind of just develops with doing the actual job and gaining experience that way.

<i>Do you feel your clinical education experiences have increased your commitment to the athletic training profession? Please explain</i>	
<b>Increased love/dedication</b>	Although they've showed me the long hours and hard work, it made me realize that I still love the profession and am committed to it no matter the hours or work
<b>Greater appreciation for the profession</b>	I think my rotations help me get more of an understanding and appreciation for the profession. It made me want to learn and study more to help me evolve as a clinician.
<b>Preceptors</b>	Some clinical experiences have not been the best where preceptors don't allow students to use their skills
<b>Reward/gratification</b>	Because I can put my learning to use and I see the rewards of this profession first hand.
<b>Time commitment/salary</b>	It's hard to commit so much time to something in your undergrad when you are not being paid--especially when the time requirements succeeds 400 hours a semester.
<b>Decreased commitment</b>	After being an AT student for 4 years, I cannot see myself working as a ATC for the entirety of my professional career

<i>What were the most positive aspects of your clinical experiences?</i>	
<b>Diversity of settings</b>	The fact that my program places us in so many different settings is most positive. It has allowed me to sample the many areas and find what interests me the most.
<b>Preceptors</b>	I was lucky to have an experienced mentor who was willing to teach me and let me develop my own ideas and relationships for treating patients.
<b>Patient relationships</b>	I enjoyed forming trusting relationships with my athletes that enabled me to give them the best treatment.
<b>Hands-on experiences</b>	Getting a true hands on experience with clinicians in the direct setting I am interested in. Learning on the job and becoming more confident in my abilities by actually practicing daily and not just occasionally.
<b>Networking</b>	Meeting good people and networking/making connections

<i>What, if anything, would have made your clinical experiences better?</i>	
<b>More time in clinical rotation</b>	Being able to stay for more time without being penalized for going over an hours limit would have enhanced my experience because I was not always able to experience as much as I would have liked to.
<b>Preceptors</b>	More preceptors who have both passion for and experience with teaching an AT student and do not see the student at simply a pair of helping hands.
<b>Diversity in settings</b>	Being able to have a clinic rotation or pro rotation because they would be different from college or high school
<b>Hands-on experiences</b>	More learning opportunities. If students could have opportunities to come up with RTP protocols, limitations for athletes, etc. As a student, those are still very difficult to come up with for me. I think some practice with a preceptor would help before having to do this on my own after I graduate.
<b>Fewer academic requirements</b>	Decreased class load in combination with the clinical experiences. It becomes difficult to be fully focused on the patients and the clinical experience when you have a lot of other classwork hanging over your head.
<b>Fewer clinical hours</b>	Although clinical hours are important, sometimes they interfered with my academic success. Athletic training also got in the way of some social events
<b>Compensation</b>	Getting paid

## APPENDIX D

### STAKEHOLDERS' ONE-PAGE HANDOUT

# Fostering commitment in athletic training

## THE ROLE OF THE CLINICAL EXPERIENCE

### PURPOSE

Professional socialization plays a pivotal role in athletic training education and is a key component in professional preparation and the development of realistic views of the profession. The athletic training clinical education experience is an integral part of the professional socialization of students.

This study evaluated the relationship between clinical education models and athletic training students' development of professional socialization and commitment to the profession among 115 final year athletic training students in Districts 3 & 4. Specifically, the study compared scores on professional socialization and career commitment scales between students that experienced clinical integration only to students that had completed clinical immersion rotations.

**Clinical integration:**  
Students take courses concurrently with clinical rotations; typically average 20 hours per week at clinical site

**Clinical immersion:**  
Students immersed in the clinical setting full-time; average 40 or more hours per week at the clinical site

### KEY FINDINGS

- ◆ No significant difference between students that had only experienced clinical integration models as compared to those that experienced one or more clinical immersion experiences.
- ◆ Quality is of greater value rather than quantity of time spent at the clinical site.
- ◆ Hands-on experiences were found to be most important to students' understanding of and commitment to the profession.
- ◆ The quality of the rotation provided based on the preceptor's engagement was also shown to increase student satisfaction and commitment to the program.



UNC GREENSBORO

Regardless of the type of educational model employed, students cite **hands-on experiences** as most important



Preceptor engagement increases student satisfaction

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### TIPS FOR PRECEPTORS:

- Identify students strengths and weakness at beginning of rotation
- Allow students to build confidence by actively participating in strong areas
- Spend extra time with student to improve upon weaknesses
- Allow as many hands-on experiences as possible