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NCAA Division III Athletes' Perceptions of Athletic Trainers: An Examination of Athletes With
and Without Exposure to Athletic Training Services in High School

A Senior Honors Thesis

Submitted in Partial Fulfillment of the Requirements for Graduation in the Honors College

By

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ABSTRACT

Nearly 70 years ago, the field of athletic training was founded, and has since been recognized by many governing bodies, including the American Medical Association (NATA, 2018). Although the field has grown and evolved since 1950, today less than 50% of high schools in the United States employ an athletic trainer on staff (Pryor et al., 2015). With such an underrepresentation of athletic trainers in high schools, many athletes enter college with little understanding of what athletic trainers do. But does earlier exposure to athletic training services result in better understanding of athletic training services and use of those services? The purpose of this study was to evaluate and analyze the differences in perceptions, knowledge, and utilization of athletic training and its services, comparing athletes with and without exposure to athletic training while in high school. Ten NCAA Division III athletes from a variety of sports were interviewed. Results show a lack of differences in responses between those with and without exposure to athletic trainers. Common themes emerged in both cohorts, such as the stigma with going to see an athletic trainer, a lack of knowledge and utilization for services, and the perceived need for the field.

INTRODUCTION

Sports have become one of the most popular aspects of American society, at all age and skill levels. In fact, according to *TIME* magazine, youth sports alone have become a 15 billion dollar industry (Gregory, 2017). The CDC estimates that nearly 30 million Americans participate in youth sports (Statistics, 2018). With this rise in popularity of sport, people are playing sports earlier and for longer durations which may result in injuries. Youth sports “account for more than 2 million injuries, 500,000 doctor visits, and 30,000 hospitalizations,” each year, and as a result, have brought along the need for professionals in the field of sports medicine (Powell & Barber-Foss, 2000). Within this field are many different members of the sports medicine team, including team physicians, physical therapists, and athletic trainers, among others. The least well known and perhaps most vital of these professions is athletic training.

The field of athletic training was founded in 1950, along with the National Athletic Trainers' Association (NATA) and is made up of over 45,000 members and is recognized by the American Medical Association (NATA, 2018). In order for an athletic trainer to become a certified athletic trainer (ATC), he or she must attend and graduate from an entry level athletic training program that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Currently, there are 208 undergraduate CAATE accredited Bachelor's programs in the United States, and 69 CAATE accredited entry level master's programs (Net, 2017). In these programs, athletic training students learn about the profession in and out of the classroom, and obtain hundreds of hours of clinical experience. Upon graduation, or during their last semester of coursework, students are eligible to sit for the national certification exam, the Board of Certification.

The Board of Certification (BOC) was enacted in 1989 and provides a national certification for athletic trainers across the United States. In addition to BOC licensure, an ATC must also undergo the proper registration/certification/licensure requirements of the individual state that he or she is working in (Cavallario, 2018). Once certified, an ATC must obtain 50 continuing education units (CEUs) every 2 years, 10 of which must be centered on evidence-based practice. These CEUs help to keep professionals up to date with the newest technologies, procedures, treatments, etc. (BOC, 2018). ATCs work under the supervision of a team physician and provide a multitude of services, as described by the five domains of athletic training: 1) Injury/illness prevention and wellness protection, 2) Clinical evaluation and diagnosis, 3) Immediate and emergency care, 4) Treatment and rehabilitation, and 5) Organizational and professional health and well-being (Fincher et al., 2018). Each of the aforementioned domains consist of a significant amount of roles and responsibilities incorporated into each one of them, which when combined help to define exactly what the field of athletic training encompasses.

The first domain includes responsibilities such as administering pre-participation physicals and fitness testing such as flexibility, strength, cardiovascular measurements, and posture and body composition assessments among others. Additional roles include regularly checking the safety of playing surfaces, prophylactic taping and proper equipment fitting, development and implementation of Emergency Action Plans and weather condition policies, as well as education on many aspects such as proper nutrition and hydration, training, and recovery (Fincher et al. 2018). Much of what ATCs do on a daily basis is preventative in nature.

The second domain is evaluating and diagnosing injuries. This process begins with obtaining a thorough history of both the injury itself, and of the athlete. From there, the athletic trainer will run through a series of stress and special tests, palpations, manual muscle tests, and

functional testing to determine the nature and severity of the injury. Once a differential diagnosis has been determined, a treatment plan can be developed as discussed in domain four (Fincher et al., 2018). Injury diagnosis is something that ATCs do on a daily basis, and is a very crucial part of their scope of care. Improper diagnoses can lead to improper treatments, which can lead to regressions or worsening of the patient's symptoms, all of which can happen if someone not qualified or trained (such as a coach) is responsible for making the decisions that should be provided by an athletic trainer.

The third domain, and perhaps the most important and unique domain, is that of immediate and emergency care. ATCs are often the first, and sometimes only, medical professionals to arrive on scene within moments after the injury takes place. Thus, it is crucial for ATCs to perform initial evaluations as quickly and as accurately as possible, in order to rule out any life threatening injuries. Then, if and when necessary it is the job of the ATC to apply life-saving techniques, such as CPR and the use of an Automated External Defibrillator, or AED. Additionally, it is up to the ATCs discretion whether or not to call for additional medical assistance, such as an ambulance, if transportation to a hospital is necessary (Fincher et al. 2018). This aspect of athletic training includes care for everything from a cervical spine injury to treating turf burn on an elbow.

The fourth domain of athletic training, treatment and rehabilitation, is perhaps the most well-known and most associated with the profession. It entails the implementation of a variety of therapeutic interventions and/or modalities, including but not limited to: manual therapy techniques, electrical muscle stimulation, therapeutic ultrasound, ice, moist warm packs, and others. Initially, the goal of treatment is to manage and reduce the patient's symptoms and pain levels. The next stage focuses on returning the patient to pre-injury levels of range of motion,

strength, endurance, and proprioception by adding exercises to the treatments previously mentioned (Fincher et al., 2018).

The fifth and final domain, and probably the least well known is organizational and professional health and well-being. This domain includes much of the “office” and administrative-type work. The most important of this being proper documentation and record keeping, including the use of proper codes for billing and reimbursement. Additionally, being a medical professional requires that ATCs keep in accordance with all Health Insurance Portability and Accountability Act (HIPAA), Federal Education Rights Privacy Act (FERPA) and Occupational Safety and Health Administration (OSHA) guidelines and regulations. Furthermore, ATCs have to abide by all federal and state rules regarding their specific practice guidelines. Lastly, this domain includes any and all budgeting tasks that are to be completed by the ATC every year (Fincher et al., 2018).

The National Collegiate Athletic Association (NCAA) Sports Medicine Handbook states that “an athletics program should feature an adequate number of athletic trainers who are able to provide for the safety and well-being of student-athletes across all sports” (Klossner, 2018). Currently, other than strong encouragement from the NATA, there is no similar legislation or governing body mandating athletic training employment at the high school level. According to the United States Department of Labor Bureau of Labor Statistics in May of 2017, of the 25,010 athletic trainers employed in the United States, 5,310 of them work in the college/university setting, however, only about half as many, 2,870, were employed in the secondary and elementary school settings (Athletic Trainers, 2018). To put this into perspective, as of the 2013-2014 school year there were more than 24,000 public secondary schools in the United States compared to just under 5,000 college/universities (Fast Facts, 2018).

Furthermore, also during the 2013-2014 school year there were nearly eight million high school student athletes, a number that has continued to grow every year for the past 25+ years (NFHS, 2018). Comparatively, there are just over 460,000 NCAA athletes competing at all three divisions (Student-Athletes, 2018). Additionally, in the “most recent study of schools using AT services, the National Athletic Trainers’ Association (NATA) reported that only 42% of high schools employed athletic trainers” (Pryor et al., 2015). When considering full time athletic training services, this number drops even lower: 37% of public schools, just 28% of private schools and 35% overall (Pike et al., 2017). All things considered, this means that of the nearly eight million high school athletes, more than five million of them do not have access to a full time ATC, whereas the 460,000+ NCAA athletes often have access to multiple full time ATCs. These numbers show that currently there is a large gap in access to athletic training services in this country, and much of its youth are not receiving the care that they need in order to keep them healthy and safe, while still being able to perform at their highest levels.

Without access to athletic training, many athletes are unaware of services for injury prevention and where to receive proper treatment of injuries. Recent research examining the perceptions of athletic training speaks to the lack understanding many athletes have of athletic training at the high school and collegiate levels. For example, Pearson (2017) focused on student athletes’ knowledge of athletic trainers’ scope of practice. Her study examined 44 freshman athletes at an NCAA Division I university, through survey questions about the athletes’ knowledge of athletic training education, knowledge of athletic training services (in terms of the five domains of athletic training), and the connection between their knowledge and previous experiences with athletic training. Results found that there was “no significant differences in knowledge of scope of practice scores with regard to previous experience with an athletic

trainer” (Pearson p.15, 2017). Overall, the data showed that the majority of participants held a moderate knowledge (score >60%) of the domains of athletic training, however, only a little over one-third yielded good knowledge (score >80%) (Pearson, 2017).

Another study, conducted by Unruh (1998), also looked at the perceptions of athletic trainers held by 343 college level student athletes, but focused specifically on differences between male and female athletes, high-profile and low-profile sports, and NCAA Division I and NCAA Division II levels. A 36 item questionnaire was employed to gain an understanding of perceptions. High-profile sports were defined as football, basketball, and baseball for males and basketball for females, everything else was considered low-profile. His results yielded higher perception scores for males compared to females, high-profile to low-profile, and Division I compared to Division II (Unruh, 1998). These higher perceptions scores mean that athletes from these groups “possessed a more favorable perception of their athletic trainers and the medical services provided” (Unruh p. 349, 1998).

These previous research studies highlight a mixed understanding of what it is athletic trainers do. An important barrier to providing services is a lack of understanding of the athletic training profession. With the need for athletic training professionals growing at the high school level, it is possible that earlier exposure to athletic training could remove the lack of understanding of the profession and services, eliminate stigma, and increase the use of services earlier in a college athlete’s career. However, there is not any literature that has investigated athletes with and without access to athletic training in high school and whether or not services were utilized earlier once in college. Additionally, most research has been survey based, and since this topic has yet to be investigated, a qualitative study could benefit the field of athletic

training by asking athletes to talk about their perceptions and experiences in greater detail so as to better understand how athletic trainers can enhance accessibility to the field.

Purpose

The purpose of this study is to assess and analyze current perceptions, expectations, and understanding of athletic training as a field, from the viewpoint of ten NCAA Division III athletes. Specifically, this study will interview athletes regarding their perceptions and knowledge of athletic training and athletic trainers, based on whether or not they had previous exposure to the field.

METHODS

Participants

Participants in this study consisted of 10 collegiate athletes from an NCAA Division III college in the Northeastern United States from a variety of sports: women's soccer, wrestling, gymnastics, football, baseball, men's lacrosse, men's and women's indoor and outdoor track, men's basketball, and women's volleyball. Of these 10 participants, four were female ages 20-22 and six were male ages 20-22 as well. Six out of the 10 participants had an athletic trainer while they were in high school (four male and two female) and four did not have any previous exposure to athletic training prior to coming to college (two male and two female). Six participants were juniors (two female and four male) and four participants were seniors (two male and two female). Participants came from different sized high schools: two had less than 100 students in their graduating class (both male), four had 100-200 students in their graduating class (three male and one female), three had between 200-500 in their graduating class (two female and one male) and one had over 1,000 students in their graduating class (female). Participants were recruited in one of two ways: either approached personally by the researcher asking if they would like to participate in the study, or by emailing the researcher about their interest after seeing a flier posted for the study. Participation was strictly voluntary, and had absolutely no effect on their standing with their institution, sports team, or athletic training program. The only requirements for this study were that they were listed on a collegiate sports team roster, and that they gave consent to be audio recorded during their interview. Participants were not provided compensation for participating in any form.

Design and Procedure

The research design for this study was a qualitative descriptive study (Magilvy & Thomas, 2009). By definition, qualitative research “seeks answers to a question, systematically uses a predefined set of procedures to answer the question, collects evidence, produces findings that were not determined in advance, [and] produces findings that are applicable beyond the immediate boundaries of the study” (Mack et al., 2018). Qualitative methods are “effective in identifying intangible factors” such as “behaviors, beliefs, opinions, emotions, and relationships of individuals” (Mack et al., 2018). Qualitative descriptive studies allow for the researcher to analyze themes in a systematic way to best understand an unknown topic. Since the research is limited in understanding the impact of having access or exposure to athletic training or trainers in high school, this design was best suited for our research question.

In this study, athletes took part in semi-structured and audio recorded interviews to talk about their experiences with athletic training and to discuss some possible suggestions to improve the field and how we service athletes. Participants were given an informed consent sheet prior to the interview, and consent was implied based on their participation in the interview and verbal agreement to be audio recorded. Interviews took place in a private area, either in a study room in the library or in the athletic training room after hours, so that they could be conducted quietly and uninterrupted.

Data Analysis

After the interviews were conducted, all were transcribed into separate Microsoft Word documents. After all interviews were transcribed, each participant was emailed only their own transcription for clarity and accuracy confirmation. Transcriptions were given numbers in an

effort to maintain confidentiality, and numbers were not shared between participants. Next, a thematic analysis was applied to all transcriptions to create and uncover any emerging or common themes. As defined by Braun and Clarke, thematic analysis is “a method for identifying, analyzing and reporting patterns (themes) within data” that “minimally organizes and describes your data set in (rich) detail” (Braun and Clarke, p. 79, 2006).

Codes of data were first extracted by each member of the research team and then discussed for commonalities. Once agreement was met, themes were established to highlight shared thoughts and experiences of the participants to generalize the results. The research team provided checks on validity and provided reliability of the codes and themes that emerged.

RESULTS

The results from this study revealed six different themes. These themes include: voluntary avoidance of the athletic training room due to the stigma associated with it, coaches' mentalities towards athletic training, lack of exposure and utilization of services, a lack of understanding and knowledge of the field, the need for education about the facilities and services provided, and the need for and significance of athletic training.

Theme 1: Stigma

The participants highlighted that currently a negative stigma associated with going to the athletic training room exists. This theme was seen in both groups, and leads to athletes avoiding the athletic training room even when they know they are injured. Two participants offered the following:

“I feel like there was a stigma about getting hurt and they stop you from playing...”

“I feel like that’s a tough stigma to erase.”

Additionally, all 10 of the athletes interviewed said that they think that there are other athletes who avoid going to the athletic training room. One participant said:

“I can think of three kids on my team that definitely should go to the athletic training room everyday but just do their own thing at home, ice up, and don’t go.”

Six participants also admitted that they at one point in their collegiate career avoided going to the athletic training room themselves. When asked why, one responded:

“If I think it’s something minor or something that I could just get over, or take a couple days and see how it feels, I’ll ignore it.”

Of these six, three were athletes who had an ATC while they were in high school, which is interesting because it illustrates that having an athletic trainer in high school does not result in increasing the likelihood to use athletic training services when in college. When asked why they personally, or thought other athletes, avoided the athletic training room, participants provided a multitude of reasons for this behavior; the most common being that they did not want to be removed from their respective sport:

“Because with some of the stuff I had bothering me I knew that they were going to take me out, and I don’t like getting taken out...”

Seven of the ten participants listed this as the reason why they think other athletes avoid going to the athletic training room as well. Additional reasons listed as to why athletes might avoid the athletic training room were potential embarrassment that they needed help, as well as not knowing what to do, or where to go, or who to talk to.

Another major reason for avoiding the athletic training room included a sense of pride or toughness in terms of dealing with injuries on their own; athletes felt that they could “fight through the pain” and wait for things to get better on their own. This was the second most common reason given as to why other athletes, or they themselves, avoided going to the athletic training room. This mentality was seen in many other participants, however there was one, ironically enough who did not have an ATC in high school, who thought this mentality was inappropriate:

“Looking back on it, it’s an awful idea, I don’t know why they do it...”

If more athletes shared this belief, then perhaps this stigma would not be as prevalent as it is today. Unfortunately, a major reason why athletes feel the need to have this toughness mentality is because it is instilled in them by their coaches.

Theme 2: Coaches' Influence

A second theme discovered from this data was that coaches play an influential role in the way their athletes perceive, understand, and utilize athletic training services. Coaches are like the parents of sports teams, so it is natural that their players will pick up on and adapt to their perceptions, beliefs, and opinions. This can help explain why some athletes avoid going to the athletic training room as well, as stated by one of the participants without an athletic training in high school:

“It’s drilled hard in high school like my coaches would always say, ‘you know you can go to the doctor, just remember that the doctor is going to take you out for 2-3 weeks’ and I feel like that’s what athletes when they come in, especially from high school, that’s probably what they think of you more as, it’s like going to the doctor’s office.”

This is a perfect example of the “old school” mentality that some coaches have, and this only perpetuates the issues already present and connected to the stigma associated with athletic training. Forty percent of participants said they had, or currently have, coaches who fit the “old school” mentality. Along with this, two participants said that athletes might think that their coach thinks they are weak for going there (athletic training room) every day, and one even said that their coach kept track of people who went every single day, which he thought was excessive. By perpetuating this mentality, and not doing anything to fight it, athletes especially at the high

school level are developing a lack of trust and associated weakness with the athletic training room, in fear of what their coaches will think of them.

Theme 3: Lack of Exposure and Utilization

A third theme that developed through data analysis is the overall lack of exposure and utilization of services. All four participants that did not have an ATC in high school said they would have been more likely to use athletic training services in college if they had been previously exposed to it. However, interestingly enough, not all participants with an ATC in high school said that that made them more likely to utilize athletic training services in college, and half of them also openly admitted to avoiding the athletic training room even though they already had prior exposure to it in high school. More than one participant said that during their early collegiate careers, they did not even know where the athletic training room was located. Furthermore, an athlete without an ATC in high school said:

“I didn’t have a level of comfort. I was kind of on edge about coming down here probably my whole freshman year...”

Theme 4: Lack of Knowledge of Athletic Training

This lack of exposure and utilization was combined with the next theme, a lack of knowledge and understanding of the profession. Again, this theme was seen in both groups, as neither really had any consistency in their definitions of an athletic trainer’s most important jobs. Overall, five said rehabilitation and treatment of injuries (three with an ATC in high school), four said preventing injuries (two from each group), two said emergency care (one from each group), and two said injury diagnosis (both with an ATC in high school). Although collectively they hit four of the five domains of athletic training, not one was able to hit more than two of

them individually, and were only able to get 50% (5/10) at the most altogether. With the exception of injury diagnosis, having an ATC in high school did not make anyone more knowledgeable of what it is athletic trainers do. One participant said

“In high school, I didn’t even know what an athletic trainer was, I didn’t even know they were a thing...”

Regardless of whether or not a participant had an ATC in high school, both groups illustrated an overall lack of knowledge and understanding of the profession and all the services it provides.

Theme 5: Need for Education

These previous two themes leads into the next one, which is a means of correcting them: the implementation of a comprehensive and educational pre-season tour of the athletic training facilities, with introduction of the staff as well. In fact, 70% of participants believed that some sort of pre-season tour with a meet and greet with the staff ATCs would be very helpful in many ways. Firstly, this would solve the issue of people not knowing the location of the athletic training room, but also make them more likely to seek out help. Additionally, participants believed that this would be a great way to build relationships between the athletes and the athletic trainers:

“That would definitely help athletes feel comfortable to go and talk to them (athletic trainers) about what’s going on with them...”

Furthermore, one participant believed that this combined with an educational seminar or class about athletic training would be even more beneficial, because she received that kind of education at a previous college and said:

“It helped me because first off I figured out like why they do the things that they do, and also why it’s important...”

Theme 6: Need for Athletic Training

Finally, the last theme is that both groups feel that athletic training is a necessary and essential field in the world of sports. 10 out of 10 participants said they feel the field of athletic training is important, and half of them believe that every high school should have one.

Participants stated:

“I probably wouldn’t have been able to make it through four years without athletic trainers.”

“After being injured and coming back from injuries, I think they’re great, and I think that having them is essential in a sporting context.”

Unfortunately, as mentioned earlier, only 35% of all high schools have access to full-time athletic training services (Pike et al., 2017). When informed of this number, more than 50% of participants said that this number needs to be higher, with responses like:

“That’s horrid, that’s absolutely horrible.”

“Kind of shocking.”

“I think it’s crazy.”

All four participants without an ATC in their high school wish that they had one, looking back, and said that their school could have benefited from having one. In the cases where an ATC was not present, the responsibility then falls on the coaches, or in some cases the school nurse, in terms of dealing with injuries, making return to play decisions, referral to doctors, etc. Again, all

four participants felt their coaches, or other school personnel, were not qualified or properly trained to be dealing with injured athletes, all the more reason to have an ATC on staff. When asked what they would say to their school to convince them to higher one, some responses included the rising injury rates in high school sports, injury prevention such as proper taping, as well as injury rehabilitation and treatments. Furthermore, all four participants without an ATC argued that ATCs are worth the expense, and could potentially even save the school money, while all six with an ATC reported that they could not think of any drawbacks or negatives to employing an ATC.

DISCUSSION

The purpose of this study was to examine the differences between athletes with and without exposure to athletic training in high school in terms of their perceptions and knowledge of the field. The results from this study were consistent between groups, and echo results from previous studies as well. With the current results in mind, the field of athletic training can utilize these results to better educate and promote the field.

The results from this study are consistent with previous research. Specifically, the role of the coach and coaches' knowledge of athletic training was influential on the participants' knowledge and understanding of athletic training. For example, a study assessed coaches' knowledge of athletic trainers and found that many coaches did not understand or have any knowledge of their qualifications (Mensch, Crews, and Mitchell, 2005). Additionally, of the twenty coaches interviewed, ten of them were not able to give the name of their ATC's direct supervisor, the team physician, and two of these ten stated that they were the supervisor themselves (Mensch, Crews and Mitchell, 2005). Similar results were seen in this study, as coaches do not have proper knowledge and education of what it is athletic trainers do:

“I know that when somebody goes down they have no idea how to deal with it. I feel like my coach here needs you guys, but doesn't make it an emphasis.”

This lack of knowledge and false perceptions can become dangerous to the field of athletic training, especially when combined with the “old school” mentality as described previously. Coaches are role models, and athletes will structure their mindsets based off that of their coaches'. So, if coaches have negative and/or false perceptions of their ATCs, then it is plausible that their athletes will adopt similar mindsets as well. This only feeds into the stigma

that is far too present, plaguing the field. On the contrary, if coaches were better informed, and held more informed and positive views of athletic training, then perhaps their athletes would develop these mentalities instead.

One way to address this lack of understanding with coaches would be to mandate and implement athletic training courses in their curriculum when obtaining their coaching degrees in college. Courses could include the basics of AT, such as the roles, responsibilities, and qualifications of ATCs, as well as why they do the things that they do, as far as treatments and rehabilitations are concerned. By teaching coaches more about the profession and its significance, more positive relationships between coaches and ATCs could be fostered. In addition, communication would improve because coaches would have a better understanding of how to talk to the ATCs, which is something that all twenty coaches stated was important to have in order for a team to be successful (Mensch, Crews and Mitchell, 2005).

Coaches are not the only ones who need more education about athletic training. As seen in Theme 5, athletes too feel that they could benefit from more information about the field. Results show that there were not very many differences in terms of knowledge in understanding between those with and without exposure to athletic training. This shows that we need not only an increased amount but also more comprehensive education for all athletes at the collegiate level regardless of their previous levels of exposure. By making athletes take courses on athletic training similar to the ones taken by the coaches, or by including information in courses, athletes could not only develop a greater understanding of what it is ATCs do, but also develop better relationships with their ATCs and be less influenced by the stigma that is associated with athletic training. In addition to education classes, every team should go through a preseason tour of their Athletic Training Facility, especially including the freshman and transfer students. This tour

would be a great way for athletes to meet their respective ATCs and also to establish a face to face relationship with them, all while learning more about their facility, all the services offered, how to get there, and much more. By establishing these relationships early on and providing early exposure, athletes would become more comfortable with their athletic training facilities much earlier on in their career, which is something that many of the participants touched upon in this study. Many had no idea where the athletic training room was, nor felt much comfort in seeking out assistance from the professionals within it. Holding a preseason tour would help to resolve both of these issues, and is a relatively easy task to accomplish.

A third group of individuals who need more education on the field of athletic training are secondary school administrators. In a study conducted by Gould and Deivert, 234 administrators were surveyed, and 212 of them said that they believed “that an athletic trainer is the most qualified person to treat athletic injuries” (Gould and Deivert, p. 59, 2003). However, when asked if they employed an athletic trainer, 45% of them said no; “The high number of responses indicating that schools do not employ ATCs suggests that administrators for those schools have not established student-athletes health care as a priority” (Gould and Deivert, p. 61, 2003). When asked why they thought their school did not employ an ATC in this study, most every participant stated funding as the number one reason. However, they also all believed that ATCs are worth the expense, and in some cases could even save the school money in terms of liability issues, which was also agreed upon by half of the administrators as well (Gould and Deivert, 2003). There are many alternative methods of obtaining athletic training services without paying the full price of a salary. For example, high schools can negotiate contracts with local sports medicine and/or physical therapy clinics for athletic trainers to spend X amount of hours per week at the high school covering practices and competitions. Additionally, a similar means of

coverage can be achieved through graduate assistants (GAs) in which a college or university pays for tuition and in most cases provides a stipend in return for athletic training services from the student. There is a significant gap in the amount of high school student athletes and the amount of high school athletic trainers employed to take care of these athletes and keep them safe.

One limitation for this study is the small sample size. Only 10 participants were recruited, which means that were some sports that were either not represented in this study or underrepresented. Additionally, all of the participants were juniors or seniors, leaving out the underclassmen. Another limitation is that because the institution was Division III, there are no scholarships for athletics, which can affect the type and number of athletes that choose to attend that school. Furthermore, compared to the larger Division I schools, the overall student body is significantly smaller, potentially offering less variety and diversity of possible participants.

Future research should expand upon these results with a larger sample and perhaps using a survey. Specifically, future research should address the knowledge, perceptions and understanding of athletes fresh out of high school, targeting more freshman and sophomores. This will provide more insights as to whether having an athletic trainer in high school or not has any effects in collegiate athletics. Additionally, future research may want to evaluate the utility of formal educational pre-season tours and sessions with athletes, to see if they do in fact provide any benefit to the athletes. Studies incorporating the implementation of pre-season tours could assess before and after utility rates, knowledge, and perceptions of athletic training.

In conclusion, this study found that mere exposure to athletic training services does not necessarily equate with knowledge and willingness to use those services. It is the hope of the researchers that these results can make athletic departments at the high school and collegiate

level aware that stigma does exist, but more importantly that purposeful actions to eliminate these stigmas are vital to the well-being of student athletes.

References

- Athletic Trainers*. (2018). *Bls.gov*. Retrieved 14 April 2018, from <https://www.bls.gov/oes/current/oes299091.htm>
- BOC - Athletic Trainers*. (2018). *Bocatc.org*. Retrieved 18 April 2018, from <http://www.bocatc.org/athletic-trainers#maintain-certification>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research In Psychology*, 3(2), 77-101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Cavallario, J. (2018). *BOC Exam and BOC Pass Rates*. *CAATE*. Retrieved 18 April 2018, from <https://caate.net/program-outcomes/boc-exam-and-boc-pass-rates/>
- Fast Facts*. (2018). *Nces.ed.gov*. Retrieved 15 April 2018, from <https://nces.ed.gov/fastfacts/display.asp?id=84>
- Fincher, L., Boyle-Walker, K., Brown, S., Detwiler, K., Dieringer, K., & McDonnell, D. et al. (2018). *ATHLETIC TRAINING SERVICES*. *Nata.org*. Retrieved 14 April 2018, from https://www.nata.org/sites/default/files/guide_to_athletic_training_services.pdf
- Gould, T., & Deivert, R. (2003). Secondary-School Administrators' Knowledge and Perceptions of Athletic Training. *Athletic Therapy Today*, 8(1), 57-62.
<http://dx.doi.org/10.1123/att.8.1.57>
- Gregory, S. (2017). How Kids' Sports Became a \$15 Billion Industry. *Time*. Retrieved 21 April 2018, from <http://www.time.com/4913687/how-kids-sports-became-15-billion-industry/>
- Klossner, D. (2018). *2013-2104 NCAA Sports Medicine Handbook* (24th ed., p. 11). Indianapolis, Indiana 46206-6222: THE NATIONAL COLLEGIATE ATHLETIC

- ASSOCIATION. Retrieved from <https://www.ncaa.org/sites/default/files/201314%20Sports%20Medicine%20Handbook.pdf>
- Mack, N., Woodsong, C., MacQueen, K., Guest, G., & Namey, E. (2018). *Qualitative Research Methods: A DATA COLLECTOR'S FIELD GUIDE*. Research Triangle Park, North Carolina 27709: Family Health International. Retrieved from [https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%](https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20A%20DATA%20COLLECTOR'S%20FIELD%20GUIDE.pdf)
- Magilvy, J. K., & Thomas, E. (2009). A first qualitative project: Qualitative Descriptive Design for Novice Researchers. *Journal for Specialists in Pediatric Nursing*, 4, 298-300.
doi:10.1111/j.1744-6155.2009.00212.x
- Mensch, J., Crews, C., & Mitchell, M. (2005). Competing perspectives during organizational socialization on the role of certified athletic trainers in high school settings. *Journal of Athletic Training*, 40(4), 333-340.
- NATA. (2018). Retrieved 14 April 2018, from <https://www.nata.org/>
- Net, B. (2017). *Search for Accredited Programs*. CAATE. Retrieved 9 November 2017, from <https://caate.net/search-for-accredited-program/>
- NFHS.org. (2018). *High School Participation Increases for 25th Consecutive Year*. Retrieved 15 April 2018, from <https://www.nfhs.org/articles/high-school-participation-increases-for-25thconsecutive-year>
- Pearson, J. (2017). *Student-Athletes' Knowledge of Athletic Trainers' Scope of Practice*(MS). Georgia Southern University.

Pike, A., Pryor, R., Vandermark, L., Mazerolle, S., & Casa, D. (2017). Athletic Trainer Services in Public and Private Secondary Schools. *Journal Of Athletic Training*, 52(1), 5-11.

<http://dx.doi.org/10.4085/1062-6050-51.11.15>

Powell, J., & Barber-Foss, K. (2000). Sex-Related Injury Patterns among Selected High School Sports. *The American Journal Of Sports Medicine*, 28(3), 385-391.

<http://dx.doi.org/10.1177/03635465000280031801>

Pryor, R., Casa, D., Vandermark, L., Stearns, R., Attanasio, S., Fontaine, G. and Wafer, A. (2015). Athletic Training Services in Public Secondary Schools: A Benchmark Study. *Journal of Athletic Training*, 50(2), pp.156-162.

Methods%20-%20A%20Data%20Collector's%20Field%20Guide.pdf

Statistics. (2018). *Stopsportsinjuries.org*. Retrieved 30 April 2018, from

<https://www.stopsportsinjuries.org/STOP/Resources/Statistics/STOP/Resources/Statistic.aspx?hkey=24daffdf-5313-4970-a47d-ed621dfc7b9b>

Student-Athletes. (2018). *NCAA.org - The Official Site of the NCAA*. Retrieved 15 April 2018, from <http://www.ncaa.org/student-athletes>

Unruh, S. (1998). Perceptions of Athletic Training Services by Collegiate Student-Athletes: A Measurement of Athlete Satisfaction. *Journal Of Athletic Training*, 33(4), 347-350.

Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1320586/>

APPENDIX

Interview Guide

Hello, my name is Zachary Dunbar and I am a senior in the Athletic Training and Honors Programs here at The College at Brockport. I'd like to ask you some questions about yourself before we get started on the questions for this study.

What is your age?

Sex?

Race and Ethnicity?

What Sport(s) do you play?

How long have you been playing this sport?

What year are you in school?

What do you do for fun?

What other sports did you play in high school?

How big was your graduating class?

I'm here today to better understand the differences that appear in athletes based on whether or not they had an athletic trainer in high school. Some things I will be looking at include knowledge and understanding of athletic training, use of athletic training services, perceptions of athletic trainers, and others. Athletic trainers are medical professionals that can be employed in a variety of settings, and have a multitude of roles and responsibilities.

With that being said,

1. Did you have an athletic trainer in you high school?
2. Tell me, in your own words, what an athletic trainer's most important jobs are?
3. Do you feel that the field of athletic training is important? Why or why not?
 - 3a. Where are possible places that athletic trainers can be employed?
4. What percentage of high schools do you think have access to a full time athletic trainer in the United States?
 - 4a. Less than 40% of high schools have access to full time athletic training services. What is your response to this number?
5. What is the difference between an athletic trainer and a physical therapist? Are there any?
6. Do you personally avoid going to the Athletic Training Room? If, yes why?
7. Do you think other athletes avoid coming to the Athletic Training Room? If yes, why?
8. Do you think that athletic trainers prefer certain sports over others? If so, what sports and why?
9. Do you think that athletic trainers keep athletes out of practices for longer than they should?
10. How many injuries have you had in your previous sports experiences?
 - 10a. How many injuries kept you out of practices/games for one week or more?

If YES to having an ATC in high school:

1. Did you like your high school athletic trainer? Why or why not?
2. What did you like most about them? Least?
3. Did you feel like he/she was passionate about what they did?
4. How often did you go down to the Athletic Training Room in high school?
5. How often do you go down to the Athletic Training Room now in college?
 - a. Do you think that having an athletic trainer in high school made you any more or less likely to use athletic training services in college? How so?
6. Do you think there was any drawbacks to having an athletic trainer in your high school?
7. If you could go back and give your high school athletic trainer any suggestions, what would you say to them?

If NO to having an ATC in high school:

1. Do you wish you had?
2. If someone got hurt who determined what the injury was and if they would have to be removed from play and for how long?
 - a. Do you feel like this person was properly qualified/trained on how to do this?
3. Do you think your high school could have benefited from having an athletic trainer?

- a. Do you think there would have been less injuries if there was an athletic trainer at your high school?
4. Was there a sports medicine clinic nearby that you could go to for rehabilitation purposes?
5. Why don't you think your high school employed an athletic trainer?
 - a. Do you think athletic trainers are worth the expense? If so, what would you say to your school to convince them to hire an athletic trainer?
6. Did you have any knowledge of the field of athletic training, and what it is athletic trainers do before coming to college?
7. Do you think you would be any more or less likely to take advantage of the athletic training services offered in college if you had been exposed to athletic training in high school?

Is there anything you'd like to add? Any questions I should have asked but didn't?

Thank you so much for your time.