THE CERTIFIED ATHLETIC TRAINER'S PREPAREDNESS DEALING WITH PSYCHOLOGICAL ISSUES OF THE COLLEGIATE STUDENT-ATHLETE

by

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Abstract

The purpose of this report is to review available literature that identifies various psychological issues collegiate student-athletes may face and how medical professionals, specifically certified athletic trainers (ATCs), are prepared to manage these psychological issues. Considering ATCs are in constant interaction with student-athletes in comparison to other medical professionals it is crucial that research is being completed to make sure athletic trainers are properly caring for student-athlete and acting quickly and appropriately to psychological issues. This report will review research on psychological aspects encountered by athletic trainers in contact with student-athletes, and; furthermore, the ATCs sense of comfort and competence in working with these issues. Questions may arise such as how well the ATC is able to assess the psychological issues and know when to assist or refer these matters, issues which may include training, competence, expectations, and ethical practice. Finally, the review of the research and literature in this area will lead to suggestions and implications for further research and continued understanding of the ATCs role in the psychological aspects of their work with student athletes.

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Dedication

This review has been dedicated my parents, Gary and Marilyn, for their life-long support. Also, to my siblings, Sam, Mike, Jolene and Stacy without their support and endless love I would not be where I am today.

Preface

The idea behind this report came when I started my assistantship as a Graduate Assistant Athletic Trainer and I started my master's education. I wanted to be able to incorporate the Special Education, Counseling and Student Affairs education program along with my assistantship. Initially it was difficult to see how these two different areas could be used together. It was not until a student-athlete's personal experience opened my eyes to how my degree program could be used with my sports medicine assistantship.

This student-athlete slowly started to talk to me about her experience with the surgeries she has obtained while being a student-athlete. Her first surgery occurred while she was a high school student-athlete. She had great success during her high school athletic career despite her surgery she still had a grant in aid offer to continue her athletic talent at a University. Since participating in athletics at the elite level at a University she obtained another three injuries that all needed surgical intervention. She began having personal struggles because though she was completing her rehabilitation she felt as if she would not get back to her athletic ability before her injuries.

For me this was my moment that I considered it my "Light-Bulb" moment. I had a better understanding that this individual and others who strongly identify with their athletic role struggle greatly with losing their athletic identity due to injury and it can be difficult for them to explain, and for others to understand, who have not been through it themselves. This student-athlete then went on to say it took her experience being stuck in a depressive state to seek assistance from a sports psychologist with whom she learned to accept her identity as much more than that of a performing athlete. Understanding her greater identity, helped her to accept and move beyond the injury. Hearing this story was the moment I realized how the

personal/social/emotional components of individual experience emphasized in the curriculum of the Special Education, Counseling and Student Affairs Department could be a valuable link and connection with my assistantship as an athletic trainer. The outcome for merging the academic program with my applied assistantship is this master's report on; The Certified Athletic Trainer's Preparedness Dealing with Psychological Issues Faced by the Collegiate Student-Athlete.

Chapter 1 - Review of Literature

Introduction

When it comes to a collegiate student-athlete there are risks taken by participating at the competitive collegiate level, which includes athletic injury. No matter what the severity of the athletic injury there are a number of both physiological and psychological responses to injury (Roh and Perna, 2000). The implication that there are both physiological and psychological aspects to injury follows with the need to provide an intervention(s) to make sure that both states are taken into consideration with treatment to allow for the best care for that student-athlete.

This report provides a review of current research and professional position statements in regard to the psychological issues encountered by college student-athletes specifically in regards to injury, and with an understanding of the psycho-social issues encountered in general by any student as a developing individual beyond the athlete role. Furthermore, this report will review the expectations of certified athletic trainers (ATC) in regards to preparation and competence in the area of psychological intervention with specific emphasis on the studies that have reviewed how certified athletic trainer's (ATC) opinion on how they are prepared to deal with those issues and the proper management of the problems they encounter.

Psychological Issues Faced by Students on College/University Campuses

Researchers have pointed out there has been an increase overall in the prevalence of psycho-social issues faced by students in-general on college campuses. Benton, Robertson, Tseng, Newton and Benton completed research stating that "Counseling center staff, retrospectively, reported that client problems are more severe now than in the past" (2003, p. 66). Benton et. al. (2003) researched what counseling center clients were seeking treatment for over a

13 year period. Their research showed that recently students were coming to the counseling center with more complex problems. Their complex problems included "Both normal college student problems, such as difficulties in relationships and developmental issues, as well as the more severe problems, such as anxiety, depression, suicidal ideation, sexual assault, and personality disorders" (Benton et. al., 2003, p. 69). One explanation for this rise in problems encountered was the assumption that stigma to seek assistance has decreased in recent years making it more likely that what was once hidden problems are now revealed. It is questionable whether this explanation would fit for athletes as they still have social press to maintain an image of confidence and competence to perform. This will be discussed later. Collegiate studentathletes "attend college with much the same academic, emotional, and personal goals and other concerns as other college students" do (Broughton and Neyer, 2001, p. 47) which may also include both situational and development issues. With their non-athlete peers, college studentathletes cope with academic deadlines, financial constraints, forming peer relationships, exploring areas of competence outside of sport, and making decisions about career goals (Storch, Storch, Killiany and Roberti, 2005). So not only are students on college campuses being seen with more complex psychological issues, which a student-athlete can also fall under that statistic because of being a student on that campus as well. There are additional demands that occur when they become involved in a competitive sport which can include:

"Balancing athletic and academic endeavors; balancing social activities with the isolation of athletic pursuits; balancing athletic success or lack of success with maintenance of mental equilibrium; balancing physical health and injuries with the need to keep playing; balancing demands of various relationship, including coaches, parents, family, and

friends; and dealing with the termination of an athletic collegiate career" (Broughton and Neyer, 2001, p. 47-48).

Student-athletes clearly have to create a delicate and demanding balancing act between the various roles and responsibilities associated with being a student and being an athlete. Settles, Sellers and Damas, Jr. (2002) completed research where they interviewed collegiate student-athletes to discuss their personal identities. They looked into whether or not these student-athletes see their role as a student and their role as an athlete as separate identities or as one role (Settles, Sellers and Damas, Jr. 2002). Role conflict can be caused when an individual takes their two separate roles and the responsibilities of each role cause conflict amongst the other demands; it is also due to an individual's perception of what within their lives is defined as a role (Settles, Sellers and Damas Jr. 2002). How much an individual identifies to a given role may cause role conflict due to the importance of demands within that role (Settles, Sellers and Damas, Jr., 2002). When an individual identifies their roles as one and they start to feel the pressures of all of the demands the result can be defined as role overload (Settles, Sellers and Damas, Jr. 2002). Whether a collegiate student-athlete views their roles as one identity or separate roles this can both impact their psychological well-being. Settles, Sellers and Damas, Jr. (2002), found that among those collegiate student-athletes interviewed, those who separated their role of a student and athlete had less distress. Distress, on the other hand, was reported by athletes who experienced interference between the demands of being an athlete and the demands of being a student (Settles, Sellers and Damas, Jr., 2002). Collegiate student-athletes who were able to separate their roles reported less psychological distress because when they were in one role they could solely focus on the demands of that role as that time, they were also able to take advantage of various support services in the separate roles (Settles, Sellers and Damas, Jr.,

2002). It is an ideal situation that an individual can separate their roles but due to publicity of sports it can be difficult to get away from that role of being an athlete.

As Robertson and Newton (2001) noted that due to the reinforcement an athlete receives from their family, supporters and peers it only makes their identity within an athletic role more prominent. Not only do these student-athletes receive reinforcement but it can also become negative because "Athletic failures become news events that people discuss among themselves; fumbles, missed shots, errant passes, and arrests for legal offenses all become part of the community's knowledge and everyday conversations" (Robertson and Newton, 2001, p.94). This is when ATCs have an opportunity to intervene because they are someone who is expected to have an understanding of basic principles including personality traits, trait anxiety, locus of control, internal/external motivation, and patient and social environment interactions as they affect patient interactions (NATA, 2011) and can work with student-athletes to psychologically find what works best with their mental well-being. In summary, the role of the ATC is at the interface of working with students who have pressures to perform as an athlete while at the same time deal with the other psychological concerns of college students. Is the ATC adequately prepared to serve the college student athlete who struggles with psychological concerns? On the other hand, how much response and intervention in these areas are reasonable and able for the ATC?

Psychological Effects Directly Related to Athletic Injuries

Roh and Perna (2000) discussed how collegiate student-athletes assume the risk of athletic injury with at least one in six athletes in the United States having an injury serious enough to keep them out of activity. When an athlete becomes injured the first person they will

interact with on the medical team will be an ATC (Unruh, Unruh, Moorman and Seshadri, 2005). Since ATCs have such a high rate of interaction with student-athletes it becomes crucial to be aware of the psychological issues they face during an injury and rehabilitation. For example, Newcomer and Perna (2003) completed research working with adolescent athletes and posttraumatic distress. They looked into avoidance and intrusive thoughts related to injury and found that "adolescent athletes experience injury-related distress despite having physically recovered from their injuries, and this is similar with adult populations and other medical populations" (Newcomer and Perna, 2003, p. 164). The public minimizes injury and believes it exposes weakness of an athlete (Newcomer and Perna, 2003; Shuer and Dietrich, 1997). Not only is it minimized but phrases become common such as "no pain, no gain", hurt is temporary, pride is forever" and "you can't make it in the club while sitting in the tub" (Shuer and Dietrich, 1997, p. 104). As Newcomer and Perna (2003) found avoidance of trauma related injury only delays the recovery and has a negative prolonged affect, but the public is commonly enforcing the avoidance behavior. The enforcement even goes back to Shakespeare who said "Old men forget...but they shall bare their arms and show their battle wounds" (Shuer and Dietrich, 1997, p. 104). Considering there are risks taken competing at the collegiate athletic level, which include injury, the healing process physiologically and psychologically causes distress but the public continually keeps stressing that athletic individuals have to be stronger than the average person.

Similar research was conducted by Shuer and Dietrich (1997) where they looked at the psychological effects of chronic injury in elite athletes. "The numerous psychological ramifications of injury, including the disruption of social support networks, a compromised relationship with coaches, and a possible change in playing position and team hierarchy, weighed

heavily on the minds of injured athletes" (Shuer and Dietrich, 1997, p. 104). When an athlete continually denied their injury or minimized the effects of the injury they inevitably are slowing the healing process (Newcomer and Perna, 2003), this is known as being frozen in the avoidant state (Shuer and Dietrich, 1997).

Shuer and Dietrich (1997) looked for gender differences in their research. They found that females tended to have higher avoidance scores in comparison to males (Shuer and Dietrich, 1997). While other research has also found that females have a higher number of stressors while being a collegiate student-athlete and have a tendency to internalize stressful situations which may put more distress on themselves (Storch, Storch, Killany and Roberti, 2005). When it came to intrusive thoughts there were no significant gender differences.

In summary, the psychological effects of injury can be profound. Among the many findings in Shuer and Dietrich's research, their reporting on the impacts of injury for elite student-athletes may have said it best. Using the Impact of Event Scale (IES), the same measure used with individuals lived through natural disasters; the researchers found that athlete scores on the IES scale were similar to those individuals.

Rehabilitation of Athletic Injuries

Now that the psychological effects of injury have been discussed for a student-athlete an ATC has to focus on getting that individual back to their pre-injury state. Getting them back is done by rehabilitation and depending on the severity of the injury the rehabilitation can be long and potentially grueling. Rehabilitation can be physically exhausting but what happens psychologically should also be in focus. Collegiate student-athlete face distress during the actual

injury but there are prolonged effects from the injury and a dedication of time and work where the student-athlete spends much of their time completing rehabilitation.

Even in 1993, Fisher and Hoisington completed a study about the attitudes and judgments toward rehabilitation from student-athletes which discussed rehabilitation adherence. Rehabilitation adherence can be described it as "(a) injured athletes' characteristics (e.g., self motivation), (b) characteristics of the rehabilitation setting (e.g., accessibility of the athletic training room), and (c) ATC-athlete interactions (e.g., rapport)" (Fisher and Hoisington, 1993, p. 48). Today, an ATC is required to be competent in Therapeutic Interventions (TI) according to the NATA which includes rehabilitation (2011) and those requirements have not changed much since. Fisher and Hoisington (1993) found that many factors influenced a student-athletes adherence to rehabilitation including physical location of athletic training room, rapport between student-athlete and ATC, crowding in athletic training room but psychologically self-motivation was a large predictor to the adherence of rehabilitation. This was because student-athletes believed their will power contributed their outcome of rehabilitation and at times undermined their potential with self motivation by putting the success on the physical supervision of the ATC (Fisher and Hoisington, 1993). This shows that it is crucial for an ATC to be aware of their influence on the success of rehabilitation with student-athletes and be able to incorporate different psychological strategies during the process when times may become difficult. For example, ATCs commonly should use goal setting with their rehabilitation practice. Though ATCs may not be able to control the physical setting of the athletic training room they can still learn to better assist the student-athlete with goal setting to get desired outcomes during the rehabilitation process and increase their motivation while giving encouragement.

Theodorakis, Beneca, Malliou and Goudas (1997) researched the importance of goal setting, self efficacy, pretesting anxiety, and self-satisfaction during rehabilitation. Goal setting is considered both a psychological technique and intervention that an ATC needs to be competent in to practice athletic training (NATA, 2011) and allows an individual utilizing this technique to give direction to their efforts, enhance persistence, develop new strategies to improve their performance (Theodorakis, et. al., 1997). Specifically working with athletes they stated that setting specific and challenging goals kept rehabilitation in a successful direction in comparison to goals which were vague and easy to obtain (Theodorakis, et.al., 1997) which along with the student-athlete and ATC they can complete attainable but challenging goals while keeping the health and safety of the student-athlete at the foremost importance. When it came to self-satisfaction the goal setting group reported lower level of self-satisfaction because they felt "Continuous rise of standards against which performance was evaluated" (Theodorakis, et,al, 1997, p. 362) which again shows an ATC needs to be properly educated to set goals that do not decrease an individual's satisfaction because it can in return hurt their motivation that Fisher and Hoisington (1993) reported having a positive influence on rehabilitation.

Theory to Practice

Harris found that Chickering and Reisser's vectors was critical for an ATC to have an understanding "The effect injury might have on a student-athlete's developmental process and on the physical healing process" (2003, p. 76). Especially, looking at the fifth vector and a collegiate-athlete establishing an identity because as Settles, Sellers and Damas Jr. (2002) pointed out a student-athlete strongly identifies with that athletic identity. For example, looking at collegiate student-athletes who strongly identify with their athletic role, they may believe they

have found their identity but due to a crisis such as a career ending athletic injury it will potentially cause them to regress to a previous vector or become stagnant within that vector (Harris, 2003), just as the individual student-athlete did who was discussed during the preface.

As noted, there are a variety of psychological issues a collegiate student-athlete faces whether it is due to injury or even just their normal developmental issues but now let's look into how prepared an ATC is to deal with those issues. First, let's look at the education preparation that is involved to become an ATC.

Educational Preparation and Certification of Athletic Trainers

An ATC is assigned to care for a given athletic team while following their practice domains which are set by the Board of Certification (BOC). As of January 2011 the domains have been set into five which include; injury/illness prevention and wellness protection, clinical evaluation and diagnosis, immediate and emergency care, treatment and rehabilitation, organization and professional health and well being. In order to become an ATC an individual has to go through an athletic training degree program which is accredited through the Commission on Accreditation of Athletic Training Education (CAATE). During this education program it includes both classroom and clinical education. The clinical education includes a variety of diverse experience sites including high schools, universities/colleges, hospitals, emergency rooms and healthcare clinics. Once the student is enrolled into their last semester of their education they are able to apply to sit for the BOC exam. If they pass their exam they are then considered an ATC. They then have to continue educating themselves with continuing education units (CEU). Additionally, an ATC must follow their state determined regulation. These may vary from licensure, certification, registration, and exemptions based upon their state

regulatory agency. Before the athletic trainer can get to point of practicing their athletic training skills, it is important to have an understanding of the level of learning an ATC attains in order to practice, which is dictated by ATEP Competencies put into place by CAATE.

Athletic Training Education Competencies

During a student's education within a CAATE program there are a variety of competencies that a student has to be considered competent in to complete the program and sit for the BOC exam. One of those competences is titled Psychosocial Strategies and Referral (PS).

This competency is broken up into three sections which include; Theoretical Background, Psychosocial Strategies and Mental Health and Referral (NATA, 2011). Theoretical Background includes having a basic understanding of how different principles can be applied and may affect interactions with the patients, how different considerations including confidence and motivation can affect return to play for patients, and how effective communication relates to patients and other healthcare professionals who are involved with working with this patient (NATA, 2011). Next, competencies related to providing psychological strategies such as imagery, positive self-talk, and relaxation/anxiety reduction techniques are required. What's more, ATC develop an understanding of how different psychological and psychosocial factors such as emotionality, locus of control, personal values and beliefs and social background may affect a patient's rehabilitation. Lastly, Mental Health and Referral emphasizes that ATCs have an understanding of different healthcare professionals who can be involved with the psychosocial health of the patient, proper referral to the appropriate healthcare professional, and be able to indentify different signs of mental health disorders (NATA, 2011).

This Psychosocial Strategies and Referral competency along with eleven others have been put into place since 1999 (Stiller-Ostrowski and Ostrowski, 2009). As education has evolved for the athletic training profession another landmark event was in 2004, this time was when for students to sit for the BOC they were required to be enrolled in a accredited athletic training education program (ATEP) (Stiller-Ostrowski and Ostrowksi, 2009). This landmark change demonstrates that as the field of athletic training is growing the standards are being set to what education is required to become an ATC and represent the profession. Research from practitioners in the field indicates that frequent need for these competencies in an ATCs daily practice is greater than the preparation provided, especially Psychosocial Strategies and Referral.

Competence of Athletic Trainers with Psychological Issues

Are practicing ATCs adequately prepared for dealing with the psychological issues of student athletes? Do they see themselves as ready to recognize when a student athlete needs referral sources? Misasi, Davis, Morin, and Stockman (1996) randomly selected 132 college/universities that had intercollegiate athletics and surveyed the ATCs who were employed by that university/college. Participants answered various questions relating to demographics, educational preparation and counseling areas. Misasi et. al. (1996) included alcohol, nutrition, drug use/abuse, injury prevention, injury rehabilitation, relationship issues, sexual issues, suicide, family matters, racial issues and financial issues into the counseling areas that ATCs need to be prepared for. Of those areas above fifty percent of ATCs responded that their clinical and academic education prepared them to counsel areas of nutrition, injury prevention and injury rehabilitation while the other areas all fell well below fifty percent (Misasi et. al., 1996). This fact can be unsettling as ATCs are supposed to be educated in those areas, and even if not at least

need to be able to refer when necessary. On a positive side, over fifty percent of ATCs responded that they want to see more emphasis put in these areas both clinically and academically during their education (Misasi et. al., 1996). ATCs want to become better educated in these areas and become better prepared. Not only would they want to receive a better education but again over fifty percent of respondents would be willing to participate in continuing education for all of the areas discussed (Misasi et al, 1996). While this study came before there was a standard for an ATCs education, the next study discussed came after the standards increased for the education but it seems the preparation did not.

Stiller-Ostrowski and Ostrowski (2009) completed research after students were required to complete an ATEP program and sit for the BOC exam to become an ATC to look at their educational preparation dealing with psychosocial interventions and referrals. Psychosocial strategies and referral is one of the competencies the National Athletic Trainers' Association (NATA) puts into place to facilitate adequate education for students. The NATA defines Psychosocial Strategies and Referral as:

"Athletic trainers must be able to recognize clients/patients exhibiting abnormal social, emotional, and mental behaviors. Coupled with recognition is the ability to intervene and refer these individuals as necessary. Additionally, athletic trainers appreciate the role of mental health in injury and recovery use interactions to optimize the connection between mental health and restoration of participation" (2011, p. 26).

When the NATA implemented these competencies it was in hope to better prepare and educate students while CAATE made sure to enforce these competencies (Stiller-Ostrowski & Ostrowski, 2009). To complete their research Stiller-Ostrowski and Ostrowski (2009) sat down with ATCs and discussed how well their undergraduate ATEP program prepared them on

communication practice, strategies to keep athletes motivated during rehabilitation, maintain or ensure athlete adherence with rehabilitation programs, stress management, relaxation, visualization/imagery, recognizing, intervening, and referring for various psychosocial issues. With the research Stiller-Ostrowski and Ostrowski (2009) reached out to different levels of ATCs who received their undergraduate ATEP at a National Collegiate Athletic Association (NCAA) DI, DII, or DIII institution and from that compared how that could have influenced their education. Out of all of the different divisions of ATEPs all ATCs within this study responded that they did not recall learning anything about social support while working with student-athletes but, "Rather, these ATs developed an understanding of appropriate counseling and social support provision during their graduate work or through practical experiences as ATs" (Stiller-Ostrowki and Ostrowski, 2009, p. 71). "Topics that ATs covered in their required classes included emotional response to injury, stress management, relaxation, and visualization and imagery, although ATs were quick to state the each of these topics was covered at a very superficial level" (Stiller-Ostrowski and Ostrowski, 2009, p. 71). These quotations should be unsettling considering the ATCs who responded that way completed an ATEP and then sat and passed their BOC without being prepared for psychological issues that have been shown to be encountered during their practice. These results lead to a conclusion that individuals are falling through the cracks and becoming an ATC when maybe they first need a better education and clinical preparation.

All ATCs within this study denied learning about stress-response models to deal with student-athletes and their emotional response to injury and forced inactivity (Stiller-Ostrowski and Ostrowski, 2009). This contradicts the NATA required ATEPs to "Explain the theoretical background of psychological and emotional responses to injury and forced inactivity (e.g.,

cognitive appraisal model, stress response model)" (2011, p. 26). Just as Misasi et. al. (1996) discussed these ATCs also reported they want to become more educated when it comes to psychosocial issues to allow them to provide the best care for their student-athletes (Still-Ostrowski and Ostrowski, 2009).

Chapter 2 - Conclusions and Recommendations

Conclusion

"It seems likely that student-athletes are under more pressure across the board today" (Etzel, Watson, Visek and Maniar, 2006, p. 521) and that pressure can range from typical college student concerns to the expectations society places on collegiate student-athletes. Society places such a large emphasis on University/College athletics that depending on how well a highly profiled sport finished a season can influence the attractiveness to potential students to that University/College (Howard-Hamilton and Sina, 2001). This is what keeps the world of athletics such a high stressful environment, the impact athletics have can affect a number of people.

Research studies keep indicating that athletes who participate at the elite level put themselves under a great deal of distress. Athletic personnel, including practicing ATCs, are not well trained in recognizing signs of psychological distress (Storch, Storch, Killiany and Roberti, 2005). It has been reported that coaches have a difficult time recognizing signs of depression amongst their athletes and a student-athlete's distress can be a sign of weakness rather than the individual getting the appropriate referral (Storch, et. al., 2005). This point is when the ATC needs to potentially intervene and be prepared to take the proper steps necessary to get the best help those student-athletes need.

Recommendations

After reviewing these topics, I start to questions why are there more complex issues being seen on college campuses today in comparison to a decade ago? Potentially the negative stigma of needing assistance psychologically is being lifted amongst the general population, but that is not true when it comes to athletics. The negative stigma amongst college athletics still stands when it comes to psychological assistance. First, it is important to take measures to help erase

the negative stigma of psychological issues amongst the athletic population including those who are directly and indirectly involved. An initial crucial step is for individuals to become educated on these mental health topics that are facing many people today.

A second recommendation recognizes that ATCs are the frontline of interaction with the collegiate student athlete. As such the trainer must have an ability to make appropriate and timely referral to other medical professionals (Unruh, Unruh, Moorman and Seshadri, 2005; Barefield and McCallister, 1997). These abilities would include understanding the signs and symptoms of both the physiological and psychological issues at an early stage before they grow into more serious problems. ATCs are reporting that they want to be better educated when it comes to work with patients and their psychological issues (Moulton, Molstad and Turner, 1997; Misasi et al, 1996; Roh and Perna, 2000). Though the NATA started taking proper steps to ensure the best treatment of patients by ATCs and requiring all ATEP to become accredited by CAATE, more still needs to be done.

An important recommendation to enhance preparation or continuing training of ATC was the suggestion to include the implementation of case study methodology about psychosocial issues faced by the individuals ATCs might encounter in practice. Stiller-Ostrowski, Gould and Covassin (2009) noted that practitioners found that understanding real life simulations that dealt with psychological issues confronting the collegiate student athlete was a positive experience in their education and preparation for their professional setting (Stiller-Ostrowski, et. al., 2009).

The final and most important recommendation I would make is the need for further research looking into how much ATCs and coaches deal with issues with their student-athletes that are not related directly to the athletic experience (Biviano, 2010). The athlete is affected by many external factors outside of sport, as well as personal issues that generally could impact any

student, which cannot be separated from their role as an athlete. Etzel, Watson, Visek and Maniar (2006) suggested that the personnel, such as ATCs, who interact closely with these student-athletes, need to be educated on early signs and symptoms to be able to intervene quickly and refer appropriately to resources on the campus or in the community.

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