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# Heavy impact : the experience of sustaining a concussion as a college athlete

Brittainy C. Johnson

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Brittainy Johnson  
Heavy Impact: The  
Experience of Sustaining a  
Concussion as a College  
Athlete

## **ABSTRACT**

This exploratory study was undertaken to determine the extent to which college athletes access mental health services after sustaining concussions and their experience surrounding their recovery process.

Using semi-structured interviews with college-level athletes, the study found that all nine participants were required to seek medical attention following their injury, while none were required or encouraged to seek mental health services such as counseling. Other emerging themes included the experience of Post Concussion Syndrome symptoms by all participants, the stigma surrounding mental health, the need for alternative methods of treatment, and the need for structure and support through the recovery process.

This study concluded that despite the literature and experiential knowledge supporting the benefits of having a mental health alliance during the recovery from a concussion, attention is not given to the mental health of a recovering athlete at the collegiate level. Therefore, this study suggests that as clinicians who often work with these populations, social workers need to not only understand the impact that a concussion can have on an individual, but also advocate for the need for further support and mental health care for this vulnerable population.

**HEAVY IMPACT: THE EXPERIENCE OF SUSTAINING A CONCUSSION AS A  
COLLEGE ATHLETE**

A project based upon an independent investigation,  
submitted in partial fulfillment of the requirements  
for the degree of Master of Social Work.

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2014

## TABLE OF CONTENTS

TABLE OF CONTENTS.....	ii
CHAPTER	
I INTRODUCTION.....	1
II LITERATURE REVIEW.....	4
III METHODOLOGY.....	9
IV FINDINGS.....	15
V DISCUSSION.....	25
REFERENCES.....	31
APPENDICES	
Appendix A: Smith College HSR Approval Letter.....	33
Appendix B: Consent to Participate in a Research Study.....	35
Appendix D: Interview Guide.....	38

# CHAPTER I

## Introduction

The research on concussions sustained by athletes is relatively new and unused, especially in its relation to the clinical social work perspective. While there appears to be a clear link between concussions, either singular or plural, and instances of depression and suicidal ideation (Juengst, Arentz, Whyte, & Skidmore, 2014), application of this information in relation to mental health recuperation is underdeveloped. The medical research in the area of brain trauma is becoming more informed and better understood (Belsen, 2013), however this information has yet to be integrated into the work of mental health professionals working with these clients. The implications that this continued research would have for the social work and clinical professionals working with these at-risk athletic populations, from adolescents all the way to professionals, would hopefully allow a process to start to unfold on how best to meet the needs of this population. Even prior to this expansion of research there is the need to find out exactly who it is that we, as mental health professionals, are working with and the discrepancy, if any, between the population of athletes experiencing concussions and those seeking treatment. Therefore, this research will first and foremost outline the known benefits of mental health treatment when dealing with affect disorders such as anxiety and depression and then ask the question, do athletes who experience concussions seek mental health treatment for related symptoms?

As we begin to look into what research has already been done about concussions in athletes and the effects of brain trauma on mental health in general, it is important to understand key terms and ideas. According to the Centers for Disease Control (2013):

A concussion is a type of traumatic brain injury, or TBI, caused by a bump, blow, or jolt to the head that can change the way your brain normally works. Concussions can also occur from a fall or a blow to the body that causes the head and brain to move quickly back and forth. Health care professionals may describe a concussion as a “mild” brain injury because concussions are usually not life threatening.

A concussion (or, alternatively, mild brain injury, mild traumatic brain injury (MTBI), mild head injury (MHI), or minor head trauma) occurs when an external force traumatically injures the brain (Bodin, Yeates & Klamar, 2012). While these terms are often used interchangeably, for the purpose of continuity in this paper and research the term concussion will be used. A variety of signs accompany concussion including somatic (such as headache), cognitive (such as feeling in a fog), emotional instability, physical signs such as pain and loss of consciousness, behavioral changes, cognitive impairment, and/or sleep disturbances (McCrory, Meeuwisse, Aubry, Cantu, Dvořák, Echemendia & Turner, 2013).

When looking more deeply into the issue of the effect of concussions on athletes in the area of mental health it is important to look at the clients, and effects of the concussion, through theoretical frameworks. A main theory that will have to be explored in the early stages of this research is that of post-concussion syndrome (PCS). Simply put, this syndrome explains the symptoms experienced by a person suffering from a concussion; symptoms such as headache, fatigue, dizziness, and trouble concentrating (Silverberg & Iverson, 2011). Though the nature of the symptoms and their longevity vary greatly depending on the person, the article points out that the majority of those

experiencing concussions do have PCS of some degree. The Article by Silverberg and Iverson also goes deeper into how the Concussion and subsequent PCS affects any preexisting conditions that the patient might have such as anxiety and depression (Silverberg & Iverson, 2011).

This thesis and empirical research study will explore what is currently understood about concussions and their effect on those who have sustained one or more. The following literature review will delve into the known effects a concussion has on an individual, both physiologically and psychologically and current treatment methods that are being used. This thesis will also highlight the importance of psychoeducation and mental health in the recovery process and the impact this has on mental health professionals such as clinical social workers in knowing how to care for this population. This empirical research study based around narrative accounts of college athletes who have sustained concussions, will further explore whether or not emphasis is being put on the need to recover psychologically as well as physically after an injury occurs. It will be interesting and informative to see the differences in experiences among a population that is, ideally, open to the same level of physical and mental health care within their respective colleges such as free physical therapy and/or counseling services. The exploration of themes that arise from this study will hopefully lead to further discussion and ideas about how we as clinicians can best meet the needs of this population and aid in the treatment and recovery from head injuries.

## CHAPTER II

### Literature Review

The recent wave of suicides by current and former professional athletes has brought the topic of concussions and brain trauma into the spotlight. Mainstream media, like the *New York Times* and *Sports Illustrated*, have focused more widespread attention on this issue and have pushed clinicians and professionals who work closely with athletes to start thinking about the implications that this information has on their practical work. When beginning research it is imperative to first understand the accentuating symptoms of concussions and why treatment and support in any form, but most notably by a trained mental health professional, is important for continued care. It will then be beneficial to explore the areas in which research has already been done and with what populations, examining how this relates to athletes dealing with the effects of concussions and how this applies to the professionals working with these athletes.

The article titled *The untold story*, by Cathy Gulli, gives great insight into the plight of NHL hockey players who have sustained concussions. Published in 2011, it is one of the first groundbreaking articles where the players themselves speak out in a narrative form about their own experiences. Eric Lindros, an NHL star in the 90's and early 2000's before retiring in 2007 after a series of concussions, speaks openly not only of the struggles he faced with anxiety and depression after sustaining concussions, but also with the struggle of coming to terms with feeling "weak" and not being able cover up his illness in order to play the sport that he had dreamed about playing forever (Gulli, 2011).



This article also outlines studies that show that the depression seen in a concussed person after six months post diagnosis is very similar to the depression seen in a non-concussed person diagnosed with depression (Gulli, 2011). In this regard the effect of a concussion on an athlete is twofold: there is the actual physiological toll on the brain that may cause mood swings, loss of control, and emotional deregulation; then there is the psychological toll on these athletes who are used to being tough, strong, and find themselves suddenly unable to play through an injury that has no blood or outward signs. The athletes are often judged by their teammates for not playing through the pain (Gulli, 2011). Belsen and Boriboon also consider these issues facing athletes, including such ideas surrounding the stigma of receiving treatment and the desire to play through the pain of a concussion (Boriboon, 2013). With there already being a stigma within our society surrounding mental health treatment, it is not surprising that athletes, who are training to be the toughest and best at what they do, are hesitant to seek out help and treatment and possibly appear weak, even if only to themselves (Belsen, 2013).

The focus on high school aged athletes is especially important in many of these studies, as there is the added concern about what such trauma does to a brain still in its developmental stages (Pennington, 2013). Most researchers outline a need for extended rest, monitoring of residual symptoms, and mental health resources. However Johnson specifically speaks to the question of what these guidelines should be in his article, "Return to Play Guidelines Cannot Solve the Football-Related Concussion Problem." This issue not only brings about thoughts surrounding mental health, and the importance of working with each client on an individual basis, but also around the more logistical issues of rules, and safety equipment (U.S. House of Representatives, 2010). While there

is a lot that still needs to be established and understood within these different areas, it is universally agreed upon within the literature that attention has to be given not only to the physiological health of an individual, but the psychological health as well.

Recently, concussions and head traumas have been more widely studied in different populations including athletes and those serving in the military. Most of the research that has been done validates that head trauma has far-reaching effects such as headaches, sleep disturbance, sensitivity to light, anxiety, and depression (Otis, McGlinchey, Vasterling, & Kerns, 2011). Seifert expands upon these ideas and ties them more closely with the injuries received by athletes and their rehabilitation. Although both the Seifert research and that done by Otis, et al. outline that the research is far from over, not much is known about just how far-reaching the effects of concussions are in the long run. De Beaumont, L., Brisson, B., Lassonde, M., & Jolicoeur, P. go even further into the clinical effects of concussions and how they could possibly perpetuate preexisting conditions of depression, or even cause enough damage to the brain to illicit such conditions. The preliminary research that has emerged behind these ideas shows that, while the trauma may happen in different manners – an explosion from an IED versus a hard hit on a football field – the resulting trauma experienced by the brain is very similar and affects the cognitive capabilities of the sufferer in much the same way (Levin & Robertson, n.d.). However, all literature points to the fact that no one really knows how these injuries will manifest in the time continuum as the research and understanding is in its infantile stages.

The standard current treatment for concussions is to rest and wait, both physically and mentally, until all symptoms have disappeared, with the hope that this will allow the

brain time to heal. However, for some people it would seem beneficial to introduce a low level of exercise into the treatment once they have emerged from the acute phase of the injury in the hopes that the exercise will have a stress-lowering and mood-elevating effect (Gulli, 2011).

With continued research it will be imperative to explore new ideas and procedures that are in place surrounding athletes dealing with the effects of concussions and, through this study, to incorporate these findings into the realm of clinical social work practice. While the overt theme in all of these articles was that concussions and brain injuries are having a long-lasting effect on athletes, the underlying question is “what to do with this information?” Ashare and Boriboon, among others, make it clear that the recuperation period after an injury varies greatly between individuals, and that the longer a person has to heal the better, but how do we support these athletes beyond the medical aspect? Furthermore, many of these studies focus on the individual athlete, and not necessarily the relationship between concussions and the work within the mental health field.

## **Conclusion**

The benefit of a having a long-term relationship with a mental health professional is well documented, especially in the case of trauma recovery (Krupnick, Sotsky, Simmens, Moyer, Elkin, Watkins, & Pilkonis, 1996). Utilizing a trained professional as an educational resource can aid the recovery and mental stability of a person dealing with a wide variety of issues such as the continuing effects of PCS like depression and anxiety and help them to understand their symptoms and learn how to modify their lifestyles accordingly. Psychotherapy and an alliance with a mental health clinician can also help

an injured athlete work through the difficulty of reassessing and understanding their self worth independent of their identity as an athlete.

Knowing the importance of psychological recuperation and strengthening after sustaining a concussion, the question remains as to why more emphasis is not put on this side of treatment. Athletes that sustain head injuries voice experiencing anxiety and depression long after the physical effects of a concussion have disappeared, and yet the treatment of these symptoms is often overlooked until they have reached an acute level (Krupnick, Sotsky, Simmens, Moyer, Elkin, Watkins, & Pilkonis, 1996). Within this study, the exploration of an athlete's experience from injury through treatment will hopefully shed insight as to whether or not emphasis is placed on the mental recovery, and at what point in the treatment this occurs, if at all. For clinical social workers these themes will be important to help shape the work being done with this clientele, and to show where advocacy is needed in the continued push for mental health awareness.

## **CHAPTER III**

### **Methodology**

The purpose of this study was to explore the relationship that college-aged athletes who have sustained concussions had to the field of mental health prior to, and after, the sustained head injuries, and how they perceived and utilized this area of support. Through a qualitative study utilizing personal interviews, this research gathered valuable insight and information about the experience of a concussion and how we as mental health professionals can help in the area of treatment and continued support for this at-risk population.

The main question surrounding the purpose of this research was, do people who experience concussions seek mental health treatment? And, if so, what should be done with this information regarding brain trauma in athletes once it is gathered and analyzed. How can it be used to further clinical social work practice when working with this population? Further questions within the qualitative piece of this study were whether there is a correlation between the acceptance of the mental health field prior to, or after, a concussion and whether or not outside factors such as gender, socio-economic status, and cultural issues play into the stigma of receiving mental health services?

### **Sample**

Participants in this qualitative study included any current college student/athlete, male or female, over the age of 18 that has sustained one or more concussions while playing a club, junior varsity, or varsity sport at the collegiate level and subsequently had to seek medical attention for said injury. The participants interviewed with me on a voluntary basis and were not required to show medical documentation to prove a head

injury was sustained. Ideally this population would include both male and female participants from diverse socioeconomic backgrounds who participated in a range of sports, however there was no way to predict the actual demographic of the participants. Because the inclusion criteria was very broad, and a large portion of collegiate athletes have experienced head trauma resulting from their sport, it seemed highly feasible to expect a solid pool of participants. Participants were a probability sample recruited through an email sent first to collegiate coaches and athletic departments that then snowballed down to current athletes, which brought out a diverse representation of the collegiate population.

Within this population, biases may include athletes who attended a school via scholarship and therefore felt obligated to view the program and their health afflictions in a certain manner, although the hope was that some biases would begin to emerge around the mental health field and the stigma of receiving services for further research opportunity. Ethically it is important to note that this population could possibly be considered vulnerable if their concussions and head trauma have led to subsequent health issues and concerns.

### **Research Method and Design**

In working with this topic it seemed that using a research design of a qualitative methods approach would be the best way to really gain an understanding of what this population goes through by having a minimally structured narrative design that would allow for rich interviews and informative personal experiences. It was necessary to develop a qualitative set of questions that would help to lead the interview, but would also allow the conversation to follow the path that the interviewee chooses, which would

allow for the most organic accumulation of information. I planned to conduct these interviews, no more than twelve in total, with collegiate athletes who had experienced concussions and had subsequently dealt with the effects of those injuries. I planned to interview participants who were still currently enrolled in college so that their experiences were not only recent, but also conveyed the differences of happenings over a collectively similar time period, age group, and experience. I chose this population because they hopefully come from a varied background, and are playing collegiate sports for a variety of reasons. The hope is that choosing this population also meant that they are in a somewhat controlled environment where they are able to receive the same services as the other athletes, both mentally and physically. It was then important to find out about these athletes' use of a mental health professional (if any) prior to, and/or after, the concussions, and their own willingness to use such means of therapy. It was also important to correlate the amount and frequency of concussions with any instances of depressive symptoms and/or suicidal ideation, however a possible limitation of this would be if the general pool of athletes were unable to recall their mental status prior to the concussion, and/or they are anxious about disclosure. Within this problematic area of disclosure it is interesting to note any intersection between masculinity and willingness to show any type of culturally perceived weakness, and whether or not they are related.

While this method of research has the strength of providing a voluntary pool of participants on the qualitative side, there were ethical concerns and bias as well. Ethically it was important that the participants be aware that they did not have to answer any of the questions, nor feel that their mental health history be stigmatized or misrepresented. Though it can only be assumed that many different biases came about

throughout this process, the ones at the forefront were be the idea of what is athletic, strong, and able, and how that plays into the image of masculinity, and what qualifies as being ‘healthy.’

Above all, this research study seems both feasible in its plausibility, necessity, and impact, as well as important to the growth of clinical social work in relation to this field. From my own personal experience, I know that there is a huge issue with concussions in athletes and the lack of treatment given to them, both willingly and unknowingly, and I feel that the conscious knowledge to change this stigmatized injury would save lives. In this manner, I feel that my own bias would be in favor of proving the need for more in depth clinical and preventative attention surrounding this issue, and therefore I may search out any research that would corroborate with this. Because of this I had to be hyper-vigilant in order to collect and categorize data that is unbiased and fair to both sides of the spectrum and argument.

### **Data Collection Methods**

Initial contact was made via email to athletic departments and coaches of colleges that have varying degrees of athletic programs (i.e., club sports, division I, II, III varsity sports) asking them to forward an introductory email to athletes from their respective programs, or gave this researcher email addresses as well as permission to contact a possible participant directly with the same. After initial contact was made with a possible participant via email, this researcher then emailed or called the possible participant, depending on the preference of the participant, to ask the screening questions. If the possible participant qualified, this researcher then mailed them the informed consent document along with a stamped return envelope. Once the informed consent



document was signed and returned to this researcher, a copy was made and returned via mail to the participant. Once this was completed this researcher then called or emailed the participant, depending on the predetermined preference of the participant, and set up a meeting time for either a face-to-face or over the phone interview. If meeting in person, each participant was greeted in a predetermined private office that this researcher had access to. The participant was informed that the interview was being audiotaped for future use. The interview process was semi-structured with four leading questions and room for organic conversation and follow up questions if needed. The interview then took place and the participant was thanked and offered room for follow up questions upon completion. If the interview took place over the phone, the interviewer called the participant at an agreed upon time and informed them that the call was audiotaped for future reference. The interview then took place and the participant was thanked and offered room for follow up questions upon completion. This researcher thanked the participant for their time and offered them a list of resources including mental health resources available to them at their respective school.

### **Data Analysis**

Demographic statistics that were highly important to this study were the number of concussions experienced, their identified gender, and socio-economic and cultural identity (among others). These were important because they helped to map out an overall understanding of the population in relation to the more inferential statistics. It was important to note the age of concussion in order to evaluate the impact that this may have had on the recovery time. The gender piece was important when evaluating their

conception of mental health services and ideas surrounding masculinity within sports as well as recovery time.

Inferential statistics, as previously stated, included the participants' views on mental health, and ideas of gender within sports (among others). This data helped to flesh out the biases of the participants and the effect that these biases might hold on their recuperation time and willingness to play through injury.

## **CHAPTER IV**

### **Findings**

The study of brain trauma and recovery is a trending research topic in our society right now, being brought to the spotlight by many athletes whose lives have been irrevocably altered after sustaining concussions. This empirical research study was designed to further explore the relationship between people who suffer concussions and the mental health field during their continued recovery. Designed as a qualitative exploratory study based on interviews, this project gives voice and an open platform to the participants so that we, as clinicians, may learn something from their experiences and gain insight for further working with this population.

The participants in this study were all current college students over the age of 18 who had sustained a concussion while playing a sport and subsequently received medical attention for the injury. The participants were asked four open-ended questions pertaining to their experience, which allowed room for the participant to narratively explore their own experience with room for clarifying follow-up questions if needed. Since a requirement for participation in the study was that the participant had experienced a concussion while enrolled in college, the assumption was that despite the possibility of different socioeconomic backgrounds, these athletes would still have access to a comparable level of health care through their respective schools.

Nine participants ended up being qualified for the study and were interviewed. Of the participants, four were male and five were female. All of the participants attended small, liberal arts colleges, in the northeast of the United States. Of the nine participants, three had sustained two or more concussions over their lifetime. Three of the participants

had sustained their concussion in college playing soccer, three while playing rugby, one while playing tennis, one while playing football, and one while participating in an equestrian event.

Even prior to the actual interview, a clear theme emerged surrounding the idea of confidentiality and how the information would be used. I had four emails returned to me from athletic training staff at three separate colleges questioning my study asking if I had permission to work with that particular school. Even after explaining that it was a narrative study on an individual's experience and that all identifying factors would be removed, including the school, I received far less support than I had expected. It would make sense that employees of schools would be wary of a study centered around such an explosive topic, especially considering liability and lawsuits. As will be discussed further in the next chapter, I also found that the participants themselves were hesitant about disclosing their relationship with mental health professionals, often questioning why this was important to the study of concussions, with one male participant stating that mental health "seemed almost taboo and admitting to a weakness or fault to consider speaking to a 'shrink'."

Below I will restate the initial interview question and then outline the findings within each question, including the major themes that will be further evaluated in the discussions chapter.

Question 1: Describe your experience of sustaining a concussion. Did you suffer from depression, anxiety, or trauma reactions (such as nightmares, flashbacks, or sleeplessness) after the concussion?

Of the nine participants, only three had sustained more than one diagnosed concussion, and all had only sustained one while playing college sports. Every participant stated that they knew immediately that something was wrong, ranging from “dizziness” to “feeling very confused and out of it.” A very apparent theme that emerged in every account was difficulty sleeping, focusing on schoolwork, irritability, headaches, and a continued anxiety for a long period after the injury occurred. One participant, the equestrian, also stated a feeling of being embarrassed stating, “I knew what had happened and was immediately embarrassed for falling off and not getting right back on, which is what you’re taught at an early age for riding.” Another female soccer player voiced that she felt she had let down her team for being unable to play in the remainder of the season after her injury. A female rugby player describes her experience immediately during and after her injury:

I must have seemed a bit out of it because another teammate approached me and asked if I was okay. When I told her what happened, she sent me over to the captain, who then sent me to the sidelines. Some other teammates there had me sit down and gave me some water. I became more dizzy, and my vision started blurring. My head still hurt, and I just felt "weird." A teammate ran to get a trainer, who came over and talked to me, and concluded I had a concussion. She was young and new, and didn't tell me a number of important things, such as not to exercise at all for the time being and to go see a doctor that day (Friday) or when they opened Monday. She did tell me to stop by the trainers on Monday and to avoid computers and heavy schoolwork as much as possible, which I did. When I saw the head athletic trainer on Monday, she told me that I shouldn't have

been exercising at all that weekend (I went for a bike ride and ran around a bit) and that I needed to see a doctor, which I then did.

The theme of anxiety and affect regulation was present in every account and ranged from frustration over being unable to play and anxiety over “seeing the stitches on my face where I had gotten hurt,” to the account from a male rugby player who, after experiencing his third concussion, said that, “I had about 3 weeks of real trouble sleeping and to this day have trouble focusing when I read. My memory of the month after the concussion is pretty shaky but I do remember having a panic attack that seemed to come out of nowhere. Starting after my concussion in high school and increasing in severity after my concussion playing rugby my anger triggers have increased as well.” The anxiety also translated to their ability to continue playing the sport as told by a female soccer player, “yet, as a goalie I sometimes have flashbacks from similar shots that hinders my skills in practice and in games. It feels like I am frozen in place in fear that I will get hit again. I got severe anxiety that I wouldn’t be able to play well again and even now I get bouts of this anxiety.” Or the anxiety of the equestrian who “had extreme headaches after the concussion and trouble sleeping. I already had documented anxiety, but it definitely was worse when I started riding and jumping again...especially on new horses; I didn’t want to get hurt again.”

Overall, the athletes experiencing the concussion felt that they were supported immediately after the injury and were not pushed to continue playing that sport, if anything they wished they could have resumed physical activity earlier than advised to help combat their anxiety. Four of the participants endorsed anxiety prior to the

concussion, and every participant endorsed a continued anxiety either “in sudden bouts” or “more consistently” since sustaining the concussion.

Question 2: What was your relationship to the mental health field prior to sustaining the concussion? Did you seek mental health treatment after the concussion? Was this encouraged/offered?

Of the nine participants, only three, two women and one man voiced having a therapeutic alliance at some point in their life prior to sustaining a concussion. The therapy was for “personal reasons” including a history of anxiety. All three of these participants voiced an exacerbation of their anxiety post- concussion. One participant stated that “My experience of having a concussion was complicated by the fact that I had been experiencing severe anxiety and depression already, so for some symptoms it was unclear what the source was. For this reason, I had to receive clearance from a nurse practitioner to resume sports, rather than just the trainers. Additionally, I was tapering off of an antidepressant that hadn't been helping but was still causing withdrawal effects.” This participant was the only one who continuously sought mental health treatment throughout the concussion recovery process.

Though all nine of the participants were required to see an athletic trainer on campus after their concussion, none of them were offered or encouraged to see any type of mental health counselor. One participant, who had had relationships with mental health professionals in the past said that they “did speak to my dean after the concussion about school work, etc. but did not go to the counseling center. I did continue to go to the trainer for check- ups until I was cleared by him to work out again.” When asked if they had thought about returning to a mental health professional post this most recent

concussion they said that “in hindsight, and knowing how much therapy has helped me in the past, I should have probably gone to the counseling center after my fall [from the horse], but I just didn’t think to. I guess I felt like a concussion was a silly thing to get counseling for.” The third participant who had previously had a relationship with a therapist for anxiety and familial circumstances said “after the third concussion I did not seek out counseling immediately. In the past year I have seen a therapist off and on because anxiety continued to be a problem for me.”

To recap, of the nine participants only three had had previous experience with a mental health professional; all of them stating that it was positive and helpful in some way. The two participants who are currently seeing a mental health professional, one counselor being a psychiatrist and one a clinical social worker, all speak positively of this alliance and state that it has helped with their preexisting symptoms as well as those exacerbated by their head injury. Seven of the participants are not receiving any mental health treatment at this time, although one had tried to make contact with a mental health professional due to a severe increase in depression but after leaving a message and getting no reply they did not try again.

Question 3: What medical/therapeutic treatment have you experienced that has worked in a positive way for you after sustaining the concussion(s)? What have you experienced that has not worked so well?

The intent of this question was to explore what methods worked for the participants when dealing with the aftermath and symptoms of their sustained concussions. All of the nine participants had no-less-than weekly visits with an athletic trainer and were slowly allowed to begin working out and participating in daily activities;



only one of the participants was cleared to play in the next football game, a week after the injury. These visits often included balance tests, hand-eye coordination exercises, and check-ins regarding ability to focus, read, and sleep. Four of the participants, two male and two female, also took online cognitive tests that they had to pass before returning to practice. The range of recovery time varied greatly between each participant, one returning to their sport after a week, another being out for almost five months. All participants voiced extreme frustration with being unable to exercise and move around after sustaining their injury, one stating, “My anxiety jumps up without exercise, so it was very frustrating that I wasn’t able to release any of that naturally. I actually probably over-utilized my anxiety medication during that time just to get me through. It was hard because all of my previous stress-release tools: riding, reading, running, etc. I couldn’t do.”

Though all participants voiced frustration at being told not to participate in physical activity for at least a week following the injury, four participants admitted to working out almost immediately, one within a day, and realizing that that was a mistake. One participant clearly recounts her recovery progress:

Following my clearance to gradually resume exercise, I was given a step-by-step checklist by the athletic trainers, which was quite helpful. It showed me what I could do to increase my activity a little bit each day, with examples. If I started having any symptoms again, I was supposed to completely start over. I didn't really do that... while increasing my exercise activity, I would experience headaches, lightheadedness, and dizziness when I was pushing myself, and at that point I would stop. I didn't start over from there, though, I just went out the next

day and, again, worked until I had symptoms that prevented me from going farther. It was quite helpful that my coach and captains take safety very seriously; I was never pushed to get back into practicing, and, rather, they encouraged me to step out if I had any symptoms. There was one Friday about two weeks after I sustained my concussion when I insisted I was healed and could play in the game the next day. I was back doing full contact and felt fine. However, in one of the last drills that day I got dizzy and lightheaded again and I was disappointed that my coach insisted I sit out the game.

This frustration and disappointment over being unable to exercise was present in all of the interviews, one female participant finding an alternative by “doing meditation, and when I was well enough I started doing yoga to focus on getting my fitness back up without moving my head much or too quickly.” Another female participant said that she found it helpful to listen to a progressive meditation/relaxation audiotope prior to sleeping at night. A male participant who is current seeking treatment for anxiety also “had a therapist connect me with a boxing coach [once I was ready] and I have been able to keep my anger in check by doing that. I underwent a week long intensive CBT workshop that I had some success with dealing with anxiety.”

While only five of the eight participants endorsed an alternative approach to treatment such as yoga and meditation, those that did felt that it helped immensely not only in their ability to focus, but also in relieving stress levels. Two of the eight participants, one female and one male, voiced an increased use of anxiety medication and “other drugs” without medical clearance in order to deal with their exacerbated anxiety as well as boredom.

Question 4: What recommendations do you have for clinical social workers and mental health professionals when working with this population in the future?

The overall theme in response to this question was organization, support, and being told early on that these services were available. Every participant voiced a similar thought that “one of the most frustrating parts for an athlete that is dealing with a concussion is that they are suddenly pulled out of the rhythm of their lives.” All participants felt that they would have done better if they had been given more structured ways to release anxiety and boredom caused by not being able to continue play and one participant would “recommend that professionals encourage athletes to go to practice and sit on the sidelines, set up equipment, just run warm-ups, etc. even before they can actually return to activity, because being around your team increases connectivity and decreases loneliness, often associated with depression, and going to practice provides structure. Also, if they experience stress-related symptoms, watching practice may be a form of exposure therapy.”

A general consensus among the nine participants also surrounded the anxiety over being students as well as athletes, a stressor that is particular to this population. They felt that it would be beneficial to “create a plan with these students to help them stay organized and calm until they are fully ready again. In addition, help them notify their teachers or school administrators to make this process easier. “ Though this was a feeling shared by all, only one of the participants had gone out of their way to actually visit a dean at their college to aid in this process, the remaining participants had dealt with their professors on their own. Finally, every participant felt it was important to “encourage

athletes to keep up with whatever physical activities they have been cleared for” in order to reduce their anxiety and maintain as consistent a lifestyle as possible.

As will be discussed in the following discussion chapter, very clear themes emerged from these narrative interviews including anxiety, a stigma surrounding mental health, the requirement of medical attention but not mental health counseling post-concussion, alternative therapies as outlets, and the need for organization and supports. While this was a small pool of participants, their athletic backgrounds as well as relationships with the mental health field were varied, further enforcing the consistencies within the themes.

## **CHAPTER V**

### **Discussion**

The intention of this research study was to explore the relationship between college athletes who had sustained a concussion and the mental health field. For this empirical research study eight college athletes who had all sustained at least one diagnosed concussion while participating in their sport were interviewed. . The main questions investigated in this qualitative study centered around each individual's experience as described narratively, if and how they received treatment post- concussion, what kind of treatment that was, and advice they had for clinical social workers working with this population.

After conducting the interviews and compiling the narrative data, clear themes emerged during this study including the stigma surrounding mental health, the need to be “tough” after sustaining an injury, the presence of post- concussion syndrome symptoms for extended periods of time, the lack of mental health treatment, the use of alternative therapies as outlets, and the need for organization and support for this population.

#### **Themes**

Present among every participant was the introduction of post- concussion syndrome including the exacerbation of any preexisting anxiety or depression as well as confusion, inability to sleep and/or focus, and headaches, all outlined in the writing by McCrory, Meeuwisse, Aubry, Cantu, Dvořák, Echemendia & Turner (2013). Participants who voiced a previous history of anxiety stated that their panic attacks got worse after the concussion, with two participants stating an abuse of medication to deal with the symptoms, and two continuing treatment for this anxiety. These findings reinforced the

study done by Silverberg & Iverson (2011) regarding the presence of PCS as well as the exacerbation of preexisting conditions after sustaining a concussion. Because all of the participants sustained their concussions within the past four years while still in college, it is unknown what the long-term effect will be on their anxiety and/or depression and it is therefore difficult to corroborate such work as Juengst, Arenth, Whyte, & Skidmore's (2014) who make clear connections between head injuries and long-term anxiety, depression, and even suicide; however at the time none of the participants endorsed a complete stoppage of their symptoms, only a lessening at best.

As noted in the previous chapter, the stigma around mental health emerged early on in my research. Two of the eight participants questioned the confidentiality surrounding the interview and how their disclosure of having a relationship with a mental health professional would be utilized. Four of the participants voiced a clear aversion to receiving mental health services after their injury, stating things such as "I don't even know if there was a mental health clinic on campus," to it being "taboo" to seek out mental health treatment. This stigma surrounding mental health treatment is still very present within our society, despite a conscious shift to try and change it. And despite the fact that literature such as that by Krupnick, Sotsky, Simmens, Moyer, Elkin, Watkins, & Pilkonis (1996) outlines the clear advantages of having a long-term relationship with a mental health professional, all but two of these participants chose to not pursue any mental health treatment to deal with their perpetuating symptoms, even if they had previously utilized therapy in the past.

Following with the theme of stigma surrounding mental health and the athletic world, there was a theme present of the need to act tough after the injury and feelings of

embarrassment and/or shame over being unable to continue playing their sport right away. One participant even spoke about the added need to be “extra tough” as a woman playing rugby at a small, Christian school, where this “masculine sport was extra stigmatized.” This theme of masculinity and the fear of appearing weak supports Gulli’s study (2011), which showed this very same theme emerge in NHL players who had sustained concussions. This theme was also explored by Belson (2013), and Boriboon (2013), with the same findings; even at the collegiate level it is apparent in these interviews that the athletes feel an underlying sense of failure when being unable to participate in a sport and yet have no visible injury to show.

The findings corroborated much of the literature, such as Ashare (2009) and Boriboon (2013), that there is no definitive timeframe to recovery from a concussion, as some participants were ready to return to activity after only a week, and others were out for months. While this literature also pointed out that the main way to deal with a concussion was to rest and wait, which most of the participants either did, or felt that they should have, Gulli’s study (2011) supported the findings that many athletes should begin light exercise as soon as the injury is no longer acute. To do this, many of the participants used alternative methods to relieve their anxiety and stress such as yoga and meditation, and all of them reinforced the need to get back into a routine of exercising as soon as it was safe to do so.

While literature such as Krupnick, Sotsky, Simmens, Moyer, Elkin, Watkins, & Pilkonis (1996) pointed out the benefits of a partnership with a mental health professional to deal with issues such as anxiety and depression, symptoms that all participants endorsed, not one of the participants sought out mental health counseling immediately

following the injury. Contrary to the findings in Gulli (2011) where athletes expressed the benefits of seeing a professional for their psychological health post concussion, not one of the participants was required or encouraged to seek out counseling. This theme was the most interesting within the study, and also the most important to continued care and work with this population.

### **Strengths and Limitations**

When referring back to the main focus of this study, do people who experience concussions seek mental health treatment related to their symptoms, it is clear that they do not. This empirical study focused on interviewing athletes was designed to include only voluntary participants currently enrolled in college with the idea that they would all have access to mental health services at their respective institutions. Participants were asked only their identified gender, and were not required to divulge anything regarding their socioeconomic background. This can be interpreted as both a strength and a limitation-- a strength because each student still had the same services offered to them regardless of background, and a limitation because cultural ideas surrounding mental health were not taken into account.

Though the sample could have been larger, and is therefore a limitation to the overall generalizability of this study, the fact that the participants played a wide range of sports, attended different schools, and yet none of them were required or encouraged to seek mental health treatment after their concussion, while the physical treatment was a requirement, shows that this study was consistent in its findings. The strength of utilizing an open-ended narrative interview approach allowed participants room to not only answer the questions surrounding their experience of sustaining a concussion, but allowed for an



honest thought process and space to give advice to clinical social workers working with this population, which was the overall goal of this exploratory study.

A strong theme throughout these interviews, and the larger implication for clinical social workers working with this population, was the need for support and organization while those who suffer concussions recover. Every participant voiced frustration and anxiety about not being able to keep up with the normal rhythm of their lives. With the clear discrepancy in the literature and the findings between knowing that mental health treatment is important and beneficial and yet not encouraged or utilized nearly enough by this vulnerable population, it seems as though there is a clear necessity for advocacy among mental health professionals. Many colleges employ clinical social workers within their counseling centers, and so the question remains, why should athletes be required to receive medical treatment after sustaining a concussion, but not mental health counseling? It would be important in further studies to explore how athletes recovered from concussions while receiving support both mentally and physically, and ways in which mental health professionals can take proactive steps in this process.

This study provides a snapshot of the experiences of a very vulnerable population that clinical social workers deal with both on the professional level and the personal level as well. With all that is known about the importance of mental health and the benefit of having an alliance with a mental health professional, it is worrisome to think that such a vulnerable population, and one that feasibly has access to social workers within their schools and programs, is not getting the support that could aid them in their recovery. And while the discussions

surrounding the long-term effects of concussions are getting a lot of attention, it seems as though a large piece of recovery and care, the psychological one, is being ignored. Social workers have the responsibility to be advocates as well as clinicians, and perhaps this is the time to take steps towards a more holistic approach to brain injury recovery.

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Appendix A

HSR Approval Letter



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**School for Social Work**  
Smith College  
Northampton, Massachusetts  
01063  
T (413) 585-7950 F (413) 585-  
7994

February 11, 2014

Brittainy Johnson

Dear Brittainy,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

*Please note the following requirements:*

**Consent Forms:** All subjects should be given a copy of the consent form.

**Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,



Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Claudia Bepko, Research Advisor

Appendix B

Consent to Participate in a Research Study



SCHOOL FOR SOCIAL WORK

Consent to Participate in a Research Study  
Smith College SSW • Northampton, MA

.....

**Title of Study: Concussions: Heavy Impact**

**Investigator(s): Brittainy Johnson, Smith School of Social Work, phone number**

.....

**Introduction**

- You are being asked to participate in a research study on the effects that concussions and head injuries have on the mental health of college-aged athletes.
- You were selected as a possible participant because you played a varsity or club sport while in college and self-disclosed experiencing a concussion during that time.
- We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

**Purpose of Study**

- The purpose of the study is to gain more knowledge of the effects that concussions have on college-aged athletes, their attitudes about accessing mental health services, and the implications for the professionals working with them in order to form new ideas and processes for the clinical social workers working with these athletes.
- This study is being conducted as a thesis requirement for my master’s in social work degree.
- Ultimately, this research may be published or presented at professional conferences.

**Description of the Study Procedures**

- If you agree to be in this study, you will be asked to do the following things:  
Participate in a 30-minute interview either in person or via telephone surrounding these issues.

### **Risks/Discomforts of Being in this Study**

- There is the risk of discomfort at discussing the incident or of re-experiencing the traumatic aspects of the injury.

### **Benefits of Being in the Study**

- Participants will have a chance to reflect on their choices regarding help after sustaining a concussion and may use the interview as a chance to evaluate how they feel they have benefitted or not from treatment. They will be indirectly sharing their experience with others in a way that will be useful to those helping people with similar experiences.

### **Confidentiality**

- The records of this study will be kept strictly confidential. Research records will be kept in a locked file, and all electronic information will be coded and secured using a password-protected file. Audiotape recordings will only be accessible by the researcher and will be deleted once the interview is transcribed. We will not include any information in any report we may publish that would make it possible to identify you.
- The data will be kept for at least three years according to Federal regulations. They may be kept longer if still needed for research. After the three years, or whenever the data are no longer being used, all data will be destroyed.

### **Payments**

- You will not receive any financial payment for your participation.

### **Right to Refuse or Withdraw**

- The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely at any point during the study. If you choose to withdraw, the researcher will not use any of your information collected for this study. You must notify the researcher of your decision to withdraw by email or phone by [*add a date*]. After that date, your information will be part of the thesis, dissertation or final report.

### **Right to Ask Questions and Report Concerns**

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, [*name*] at [*email*] or by telephone at [*phone number*]. If you like, a summary of the results of the study will be sent to you. If you have any other concerns about your rights as a research participant,



or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

**Consent**

- Your signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep, along with any other printed materials deemed necessary by the study researcher.

.....

Name of Participant (print):

\_\_\_\_\_

Signature of Participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Researcher(s): \_\_\_\_\_ Date: \_\_\_\_\_

.....

**[if using audio or video recording, use next section for signatures:]**

**1. I agree to be [audio or video] taped for this interview:**

Name of Participant (print):

\_\_\_\_\_

Signature of Participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Researcher(s): \_\_\_\_\_ Date: \_\_\_\_\_

**2. I agree to be interviewed, but I do not want the interview to be taped:**

Name of Participant (print):

\_\_\_\_\_

Signature of Participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Researcher(s): \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix C

### Interview Guide

1. Describe your experience of sustaining a concussion. Did you suffer from depression, anxiety, or trauma reactions (such as nightmares, flashbacks, or sleeplessness) after the concussion?
2. What was your relationship to the mental health field prior to sustaining the concussion? Did you seek mental health treatment after the concussion? Was this encouraged and/or offered to you?
3. What medical/therapeutic treatment have you experienced that has worked in a positive way for you? What have you experienced that has not worked so well?
4. What recommendations do you have for clinical social workers and mental health professionals when working with this population in the future?