

The Relationship between Masculinity, Race, and Type of Sport on Attitudes Toward Help
Seeking in Retired Male College Athletes

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Abstract

Despite an increased risk of developing mental health difficulties, retired male college athletes are significantly less likely to seek mental health treatment than the general population. Results from previous studies suggest that the type of sport, race, and masculinity level of an athlete may contribute to more negative perceptions of help seeking. The purpose of this study was to fill gaps in the extant literature, raise awareness of stress associated with retirement from sport, and help identify those who may be most at risk for developing mental illness. An analysis of covariance (ANCOVA) was performed to measure the differences in attitudes toward help seeking across type of sport and race, while controlling for the covariate of masculinity. The groups categorized by type of sport were labeled as “collision” (Hockey, football, lacrosse, ice hockey) and “non-collision,” (all other NCAA sanctioned sports), and the groups categorized by race were labeled as “White” and “People of Color” (POC). Results of the ANCOVA showed that masculinity did have a significant effect on attitudes toward help seeking in this group; however, type of sport and race did not have a significant impact. Reasons for the non-significant results may be related to the disparity in age among participants, lack of diversity among racial groups and type of sport, or the recent notoriety and advocacy for mental health and social justice in the sports community. The findings from this study suggest that earlier intervention and more proactive discussions about masculinity risk factors will be important in identifying players who may be at risk and normalizing help seeking for athletes struggling with mental illness. Findings also support the need for further research examining help seeking differences between various sports and racial groups, in order to gain a clearer depiction of the impact these variables may have on the mental health of a retired male college athlete.

Keywords: Retired, Athlete, Attitudes, Masculinity, Sport, Collision, Non-Collision, Race

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Finally, I’d like to end with a quote that has been particularly meaningful to me during this process, and throughout my life, during periods of darkness, uncertainty, and adversity:

“You gain strength, courage and confidence by every experience in which you really stop to look fear in the face. You are able to say to yourself, I have lived through this horror. I can take the next thing that comes along. You must do the thing you think you cannot do.”

-Eleanor Roosevelt

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CHAPTER I

Introduction

Despite an abundance of empirical research examining psychological, physical, and emotional difficulties suffered by athletes, few studies have been dedicated to actually exploring mental illness and attitudes towards help seeking in retired college athletes. Athletes in general, both current and retired, have been identified as an at-risk population for a variety of mental health disorders such as anxiety, depression, substance abuse, and eating disorders (Gavrilova & Donahue, 2018; Gliga et al., 2018; Miller & Buttell, 2018). However, research has shown that athletes are significantly less likely to seek professional psychological help than non-athletes (Watson, 2005). Because athletes experience mental illness at the same or even higher rate than non-athletes, those who negatively view counseling services may be at increased risk for developing aversive mental health conditions (Bauman, 2015; Gavrilova & Donahue, 2018). Additionally, collision sport athletes, and male athletes in particular, may be increasingly susceptible to mental health difficulties due to pervasive, masculine, expectations embedded in sports culture that encourage traits of independence and power, and deter acts of vulnerability and help seeking. There have been a multitude of studies dedicated towards assessing psychological difficulties in child and adolescent athletes, college athletes, and professional athletes; however, retired college athletes, and retired male college athletes, are a population that has largely been unexamined (Miller & Buttell, 2018; Park et al., 2013; Schuring et al., 2016; Simon & Docherty, 2013). This chapter will briefly highlight help seeking behaviors in this population, thoroughly review psychological difficulties suffered by retired college athletes, note the limitations of the current research, and state the purpose, significance, goals, research questions and hypotheses of this study.

The Problem

There are many reasons why athletes have difficulty seeking help, psychological help in particular. Variables contributing to negative perceptions of help seeking, which will be elaborated upon in Chapter II, include the impact of sports culture on the athlete's beliefs, perceived stigma associated with therapy, masculine gender norms, high contact vs. low contact sport participation, and race (Martin, 2005; Steinfeldt et al., 2009, Watson, 2005, Weatherhead, 2015). Sports culture often creates certain "unwritten rules" among athletic communities that emphasize playing through pain, never admitting weakness or defeat, sacrificing one's personal well-being for the sake of the team, and concealing any area of vulnerability. Mantras such as "no pain no gain," "suck it up," and "fight through it" that condition athletes to ignore pain or weakness during competition may also subsequently contribute to athletes viewing mental health treatment as a sign of weakness or quitting (Watson, 2015). Further, studies have shown that male student-athletes were more likely than female student-athletes to perceive that they would be stigmatized for seeking psychological help: and that men involved in high contact sports were even more likely to view mental health treatment as a sign of weakness (Martin, 2005). Sport culture beliefs regarding vulnerability and seeking help are similar to male gender expectations in the general public. According to Steinfeldt et al. (2009), men have exhibited significantly lower resistance to societal stigma associated with seeking professional help than have women. Furthermore, men of color have been found to be significantly less likely than both White men and women of color to receive mental health treatment, and are more susceptible to the stigma surrounding therapy as well (Vogel et al., 2011). All of these factors, in combination with specific emotional and physical struggles of retired male college athletes, drastically increase the risk of psychological illness in this population.

It is important to note that retirement itself is not always a negative experience for college athletes. Many find relief in no longer bearing the extensive responsibilities associated with being a full-time student-athlete, and the extraneous physical, mental and emotional demands of collegiate sports participation. In fact, results from a meta-analysis conducted by Park et al. (2013), examining extant literature on retirement in college athletes, indicated that 23% of studies actually found retirement to be a positive experience for athletes transitioning out of sport. However, many individuals do not adapt well to the loss of their role as an athlete, and tend to experience a significant level of distress during this period.

Retirement in college athletes can often lead to major changes in the individual's physical and mental state, along with maladaptive behaviors to cope with the loss of sport. Research has revealed that many recently retired athletes endorse feelings of helplessness, confusion, low self-worth and loneliness (Gliga et al. 2018, Heird & Steinfeldt, 2013, Lavalley & Robinson, 2007, Sanders & Stevinson, 2017). This is an at-risk population struggling mightily with a plethora of difficulties, and yet there is an extensive gap in both the actual seeking of help, and the extant literature studying mental illness in former college athletes (Gouttebarga et al., 2015; Miller & Buttell, 2018; Simon & Docherty, 2013). Expanding upon the literature to better educate the public about this at risk population and why they may not be seeking help, could promote the necessary steps towards improving treatment options for retired male college athletes.

The present study was designed to provide a better understanding of risk factors that are salient in predicting attitudes towards help seeking specifically in retired male college athletes. The study focused on the effects that level of sport contact and the athlete's race have upon their beliefs towards seeking mental health treatment. The purpose of solely investigating males in this study was based on previous research almost ubiquitously discovering lower levels of help seeking in men in comparison to women (Filiaci & Foley, 2018; Nam et al., 2010; Steinfeldt et

al., 2009; Vogel et al., 2011). By limiting the impact of sex, the effects that other variables such as level of sport contact and race have on attitudes towards help seeking in this population, were more clearly investigated.

Psychological Difficulties Following Retirement

Research has shown that retired male college athletes have a high propensity to experience a multitude of psychological issues. These difficulties include coping with (a) depression and grief, (b) loss of identity, (c) anxiety, (d) sudden and involuntary retirement, (e) serious physical injuries, (f) concussions and neurological disorders, (g) suicidal ideation, (h) chronic physical pain and osteoarthritis, (i) eating disorders, and (j) substance abuse (Gliga et al., 2018, Gouttebarga et al., 2017; Kroshus et al., 2015; Simon & Docherty, 2013; Veliz et al. 2014). Despite these risks, this population has a significantly less positive attitude towards seeking psychological help than non-athletes (Martin, 2005; Watson, 2005). In fact, studies show that approximately 90% of recently retired athletes do not seek psychological help during or shortly after career termination (Gliga et al., 2018).

Depression and Grief

According to the NCAA (2016), the median number of hours spent devoted to athletics by Division I football players is at 42 per week, with men's baseball at 40 hours, men's basketball at 34 hours, and all other men's sports averaging 32 hours per week. This number is representative of the "official" time spent in practices, training rooms, coach's offices and film room, but does not encompass all of the time athletes personally spend either studying their sport or around their teammates. Many athletes live with their teammates and often engage in social activities with them throughout the week as well. They may view coaches or older teammates as primary support systems, role models, mentors, and even surrogate parental figures (Watson & Kissinger, 2007; Worthy, 2017). College athletes are often revered and provided favorable

treatment by other students, fans, boosters, and media during their time as student-athletes (Watson, 2005). Through sport, they acquire seemingly unlimited access to high quality clothing, meals, academic resources, training facilities, and medical treatment. All of these variables illustrate the pervasive impact that sports have across all aspects of an athlete's life in general, not just during the time they spend on the playing field. Often, athletes competing at the collegiate level have been playing sports since early childhood. It is not uncommon for competitive child or adolescent athletes to have their schedules, social lives, academic obligations, and family involvement revolve around their participation in sport year-round. The life of an athlete, even a young athlete, is often very structured and organized. Sports can dictate the way individuals establish their diet, sleep habits, social activities, exercise routine, study schedule, and financial management. Leaving the athletic community can therefore be an extremely difficult transition for college athletes in particular, and why many athletes experience symptoms of depression once their careers are finished. Losing this familiar and grounding source of stability that has provided structure across all areas of these athlete's lives often since childhood, can be highly stressful upon their retirement.

A famous phrase in sports culture, known widely across a variety of athletic communities, states that "a sports star will die twice, the first time at retirement" (Vickers, 2013 p. 3). While this adage is a generalized statement used casually to express the difficulty of retirement for athletes, findings from the empirical research actually support the notion as well. Miller and Buttell (2018) state that the loss of sport for an athlete can be an enormous emotional void that can induce feelings of grief and mourning, which can manifest similarly to grieving the death of a loved one. Loss at retirement can manifest emotionally through a depreciation of self-purpose, motivation, and sense of identity. It can also manifest practically through loss of competition, exercise, social relationships and daily routine (Heird & Steinfeldt, 2013). In terms

of intangible value, sport provides many athletes with a source of comfort, control and security that they may have never received from people in their personal life. Sport can be a central coping mechanism, distraction, and outlet. It may be easy to recognize and associate an athlete's struggle to adapt with no longer being on the playing field; however, the process of retirement is a much more complex, omnipresent experience for an athlete than most consider. Werthner and Orlick (1986) actually equate an athlete's involvement with sport as a "living and loving relationship" that ends at retirement. For example, high profile athletes such as NBA player Kobe Bryant have gone so far as to create short films after retirement such as Bryant's "Dear-Basketball," which is a pseudo-eulogy and memoir pronouncing his love and intense relationship with the sport.

Depression in retired college athletes can manifest for numerous reasons in addition to grieving the loss of sport. A study conducted by Simon & Docherty (2013) found that retired Division 1 athletes exhibited significantly higher levels of fatigue, sleep disturbances, pain interference, and physical complications than a non-athlete control group. Other studies also show that retired athletes have significant struggles with burnout, alcohol abuse, career indecisiveness, eating and weight-related disorders, and limitations to daily activity, all experienced at equal or higher rates to non-athlete counterparts. (Gavrilova & Donahue, 2018; Gouttebarga et al., 2015; Miller & Buttell, 2018; Schwenk et al., 2007). One common denominator that often contributes to all of these disorders is over-identification with the athlete role (Brewer et al., 1993; Miller & Buttell, 2018; Sanders & Stevinson, 2017). Those who focus solely on sport during their maturation, while neglecting the development of other interests, skills, hobbies or relationships, typically experience significant difficulty adjusting to retirement. Former athletes have also identified feeling as if they actually lose part of themselves, and their

unique and personal identity in the retirement process as well (Heird & Steinfeldt, 2013; Lavallo et al., 1997; Lally, 2007).

Loss of Identity

Athletic identity, according to Brewer, Van Raalte, and Linder (1990) is defined as “the degree of strength and exclusivity to which a person identifies with the athletic role” (p. 2). The role of “athlete” can at times be as important to an individual as being a parent, student, friend, religious member, or occupational professional. It can be a way through which individuals represent themselves to the world, and an area where an individual feels a sense of importance, pride and belonging in society. Sport is not only an activity, hobby, responsibility or job for many athletes. It often becomes a source of purpose, and part of who they are as a human being. The higher the level of athletic achievement a person reaches, the higher their identity and sense of self coincides with being an athlete (Cieslak, 2004). There are many positive qualities associated with high athletic identity, especially while the athlete is actively competing in sport. Athletes high in athletic identity have endorsed more positive self-perceptions in social settings and romantic relationships, higher rates of physical activity and exercise, higher levels of competence, self-esteem and self-confidence, and lower levels of depression and anxiety (Armstrong, 2009; Cieslak, 2004; Curry & Rehm, 1997). Despite the obvious benefits of a high athletic identity, there are negative attributes associated with athletic identity that can be detrimental to the well-being of an athlete once they lose sport as a primary source of reinforcement and validation.

Research has shown that high levels of athletic identity have correlated with symptoms of (a) identity foreclosure, (b) depression, (c) lack of career maturity, (d) poor physical health, (e) social isolation, (f) substance abuse and (g) eating disorders (Brewer et al., 1993; Oregon, 2010; Weatherhead, 2015). Identity foreclosure can be defined as “commitment to the athlete role in

the absence of exploration of occupational or ideological alternatives” (Brewer & Pepitas, 2017 , p.119). All of these psychological difficulties can become extreme areas of concern once the individual is no longer an active member of the athletic community. Park et al. (2013) found 35 studies throughout the literature examining factors of athletic identity and retirement from sports. Of these 35 studies, 34 identified significant relationships between high levels of athletic identity and identity foreclosure, both of which significantly correlated with a negative retirement experience overall. Additionally, high levels of athletic identity lead to “tunnel vision” syndrome, and a “linear retirement preparation trajectory,” meaning that career options are limited solely to jobs in the athletic community (Martin et al., 2014; Miller & Buttell, 2018; Vickers, 2013). Studies conducted by Alvarez et al. (2004) and Torregrosa, (2015) found that 40% of athletes exhibited a “linear trajectory” retirement plan prior to athletic termination. The study also revealed that all athletes in this particular group exhibited significant difficulties with career planning, accepting social support outside of college athletics, identity foreclosure, and coping with the loss of sport. Statistics further illuminate these results, stating that 78% of Division I men’s ice hockey players have strong beliefs that they will become a professional or Olympic athlete, as do 73% of basketball players, 72% of golfers, and 64% of football players (NCAA, 2016). Given that fewer than 2% of college athletes actually become professionals (NCAA, 2016), those with high athletic identity and a linear, rigid career preparation plan, have an elevated risk for adjusting to retirement in an unhealthy manner.

Adjustment and Age

Adjustment to retirement can manifest in a number of ways for college athletes coping with the recent loss of sport. A study conducted by Wippert and Wippert (2010), examined college athletes and adjustment to transition over various phases of early retirement. The authors found that during the first three months, retired athletes experienced a vacillation of reactive

emotions while adjusting to the immediacy of retirement. Feelings of anger, denial, confusion, and distress occurred during this time for recently retired athletes, especially during the first few days and weeks following retirement (Wippert & Wippert, 2010). Three months after retirement signified an athlete's entrance into the "intrusion phase," which includes feelings of low mood and high stress as the athlete copes with the reality of losing sport. The intrusion phase occurs immediately before the "later transition phase," where a return to baseline stress level begins to emerge (Wippert & Wippert, 2010, p. 144). There are still substantial levels of distress occurring three months after retirement, particularly in athletes whose retirement was sudden and involuntary (Giannone et al., 2017; Wippert & Wippert, 2010). This indicates that athletes in this phase are still at risk for psychological difficulties despite being removed from the immediate shock of retirement (Wippert & Wippert, 2010). Park et al. (2013), Weigand et al. (2013), and Miller and Buttell (2018) have also identified inconsistent findings and a lack of research overall examining recently retired college athletes, further supporting the inclusion of athletes who are only a few months removed from retirement. Wippert and Wippert (2004) noted that difficulties faced by younger retired athletes typically reflect the immediate grief and loss of athletic identity affiliated with retirement at a young age. Additionally, studies conducted by Gliga et al. (2018), Lally (2007), and Sanders and Stevinson (2017) found higher risks of psychological distress to be associated with college athletes who involuntarily retired from sport. Given that involuntary retirement is usually associated with career-ending injuries, cessation of a program, or being cut from a team, athletes still eligible to compete at the college level (i.e. ages 18-22) are typically the population affected by involuntary retirement. Therefore, it would have been negligent to exclude younger athletes who are still clearly at risk for mental illness, especially those who retired suddenly and involuntarily. Therefore, athletes who have retired as recently as three months prior to participation in this study were included in the sample for the present study.

There were also no upper limits associated with the age of the retired athlete in the present study, for a number of reasons. Retired athletes of any age may be at risk for the development of a mental health disorder. Older retired athletes and former collision sport athletes in particular, have developed sports-related conditions such as osteoarthritis and Chronic Traumatic Encephalopathy (CTE), both of which typically manifest later in life. These disorders have been affiliated with mental health complications such as depression, sleep disturbances, mood changes, and higher levels of aggression and impulsivity (Finkbeiner et al., 2016; Maroon et al., 2015; Schuring et al., 2016; Schwenk et al., 2007; Simon & Docherty, 2013). Additionally, studies have shown that athletes, male athletes, and male collision sport athletes, across a wide range of ages, are at higher risk than the general population for abusing substances such as alcohol, prescription painkillers, and anabolic steroids (Lisha & Sussman, 2010; Parssinen & Seppala, 2002; Veliz et al., 2014).

Involuntary Retirement

Retirement has been shown to be even more tumultuous for athletes who retire suddenly due to extraneous circumstances such as being cut from a team, program cessation, loss of eligibility, or suffering a serious physical injury (Gliga et al. 2018; Lally, 2007; Martin et al., 2014). Miller & Buttell (2018) note that being able to plan for retirement and having a predictable ending to an athletic career tends to lead to a healthier adjustment to life after sport. A meta-analysis conducted by Knights et al. (2016) further illustrates this point by quoting Alfermann (2004) as stating that planned retirement vs. unplanned retirement for college athletes elicits significantly “higher levels of cognitive, emotional, and behavioral readiness for career transition” (p. 299). Involuntary retirement has specifically been noted throughout the literature to be one of the most pertinent risk factors for athletes developing psychological disorders after their sports career ends. Studies have found that athletes who are unable to proactively redefine

themselves and discover a new identity after sport have a substantially harder time adjusting to retirement, and pose an extremely high risk for depression (Gliga et al., 2018; Lally, 2007; Martin et al., 2014, Sanders & Stevinson, 2017). Being unable to plan, predict, or control how an athletic career ends can add an even higher level of emotional distress for an athlete immediately transitioning to an entirely new lifestyle.

When an unforeseen event occurs, and causes an athlete to suddenly and involuntarily retire, their entire life immediately changes. As previously mentioned, there is clear evidence that sport can infiltrate and substantially influence an athlete's personal schedule, eating and sleeping routine, social life, physical activity level, coping outlets, emotional support systems and sense of self-purpose. Unexpectedly retiring from sport can significantly alter and impact all areas of life and force the athlete to create an entirely new lifestyle, without any form of preparation. This level of immediate and unexpected change has been clinically compared to experiencing a major emotional crisis or traumatic psychological event for some athletes (Heird & Steinfeldt, 2013; Park et al., 2013; Wippert & Wippert, 2008). Park et al. (2013) identified numerous studies discovering that forced retirement can cause athletes to experience "high levels of negative emotions, such as a fear of social death or dying, a sense of betrayal and social exclusion, and a loss of identity" (p. 34). As a result of the unexpected trauma and seemingly intolerable emotional pain, maladaptive coping mechanisms may be used to help the athlete process the transition. Studies have shown that elite athletes who experience an unpredictable, involuntary form of retirement are at risk to use defense mechanisms such as denial, isolation, substance abuse, self-injurious behavior or suicide (Park et al., 2013). Perhaps the greatest risk factor that can lead to these methods of coping is the cessation of a sports career due to a serious physical injury. Involuntary retirement due to a serious physical injury can be one of the most traumatic experiences for an athlete to endure in their lifetime. As noted above, some difficult aspects of an

unplanned retirement for an athlete often relate to a sudden loss of control, stability, purpose, and future. These emotional struggles and feelings of regret can be detrimental and debilitating.

Compounding these feelings with a serious injury, that can also lead to a long-term physical disability, can put members of this population at serious risk for mental illness.

Injuries

Career ending injuries can cause athletes to lose much more than simply their ability to compete and play a sport at a high level. Many times, when a high-profile athlete excelling at the college level sustains a serious injury that removes them from competition, others simply see their absence on the field. What is not seen, however, is the mental and physical anguish that occurs as the athlete attempts to rehabilitate and cope with this major life transition. Unlike other external causes of retirement, such as age, being cut from a team, or a decline in performance, a serious injury is an instantaneous occurrence that can leave the athlete with a tremendous amount of confusion, regret and despair. Sanders & Stevinson (2017) found that involuntary retirement specifically due to a career ending injury was three times more likely to cause depression in a retired athlete than retirement for non-injury reasons.

A major reason why serious injuries are particularly more difficult to cope with relates to the unique relationship athletes have with their physical body. Athletes, particularly elite athletes competing at the collegiate level, typically have a tremendous amount of physiological awareness, and a hyper-focus on the maintenance and improvement of their physical stature. An athlete's body is constantly being monitored. Exercising to build muscle and stamina, receiving treatment for pain, icing and stimulating muscles to relieve soreness, maintaining a healthy and restrictive diet, and attending medical appointments for minor injuries, become routine ways for athletes to maintain their craft. An athlete's relationship with his or her physical body and its performance on the field or court is often an overlooked aspect of competitive sports, as it is

literally their livelihood and physical vehicle to success in their profession. When a serious injury occurs, terminating an athlete's ability to play a sport, this relationship subsequently falters. Often there is a strong sense of betrayal felt by the athlete towards his or her physical body when it becomes compromised to the point of career cessation (Heird & Steinfeldt, 2013; Lally, 2007; Park et al., 2013). This betrayal is often related to the fact that an athlete's ability to control and utilize their physical body has been a way for them to stand out and establish themselves as special, unique, and highly talented. As noted in Park et al. (2013), "Athletes' feelings of loss of control over their bodies can be a source of identity crisis during the career transition process" (p. 36). The athlete may begin to feel extremely frustrated with themselves and wonder why their body is preventing them from continuing to do what they love, what they excel at, what makes them feel happy, and what provides them with positive recognition from others (Brock & Kleiber, 1994; Sparkes, 1998). They may begin to reminisce about times when they were healthy and when their body was cooperating with the physical demands associated with sport (Sparkes, 1998). This sense of nostalgia can further contribute to feelings of grief and depression (Sparkes, 1998). Feelings of anger and resentment towards their physical body can also cause athletes to blame themselves for the retirement (Sparkes, 1998). This blame can continue for years, causing the athlete to feel "haunted by the betrayal" of their physical body, as they ruminate on the loss of a successful and potentially lucrative future (Heird & Steinfeldt, 2013; Lally, 2007, p. 86; Sparkes, 1998). This is especially true for a superior college athlete destined to become a professional, as they can lose thousands if not millions of dollars because of a serious injury. For these athletes, injuries not only affect the ability to perform on the field, but also can reshape their entire future, and the future of their family. Feelings of hopelessness and self-hatred can develop during this grieving process, both of which become extremely dangerous when the

athlete is also removed from familiar social supports and coping outlets associated with sport (Adler & Adler, 1989; Sparkes, 1998).

Athletes who sustain an injury have identified loss of camaraderie and relationships within their sport as perhaps the most difficult aspect of being physically unable to compete (Baillie, 1993; S.M. Murphy, 1995; Heird & Steinfeldt, 2013). An athlete's relationships with teammates are an aspect of sport that can be unnoticed in the public eye. Athletes spend a substantial amount of time with teammates, coaches, managers and trainers. Fans and spectators witness the time on the field or court during competition, however there is a certain bond among athletes that is present across a multitude of settings. Athletes spend social time together bonding in the locker room, trainer's room, traveling on buses or planes, and staying in hotels on the road. Leisure time is spent eating together, socializing at parties and gatherings, recovering from workouts, and even living together. Preparation time is spent together during practice, lifting weights, watching film, meeting with coaches, and scouting other teams. Many college athletes are also in the same classes, fraternity or sorority, and community service organizations together. Quantity aside, this time is also dedicated to working together toward a common goal of personal improvement and team success. All of these factors can create a special, communal bond akin to that of a family. In fact, what many non-athletes do not always understand is that when an athlete suffers a serious injury and is no longer able to compete, they become isolated from all of the above. Lavalley et al. (1997) note that "one of the more frequent experiences is a sense of emotional loss associated with separation from significant others, such as coaches and teammates" (p. 130). Even if the athlete is physically present at meetings or events, there is a very noticeable difference when they are not directly involved with contributing to the team's efforts on the field or court. Often, they are no longer practicing or traveling with the team. They are no longer in the locker room or trainer's room preparing for the next competition. They are

no longer working out or following the same schedule as their teammates and friends. Perhaps most importantly, they are no longer working through adversity with teammates towards a common, unifying goal of team success. An injured athlete's time is mostly spent focused on rehabilitation, resting, and observing their teammates from the sideline. One of the most painful experiences for an athlete is not only being removed from the comfortable presence of teammates, but also knowing that they are no longer contributing to the team's success. Feelings of guilt and helplessness may ensue, with the athlete also no longer having their primary support network to rely on for help. Athletes often feel as if only others in the sports community can truly understand the magnitude of this loss. As noted by Lavalley et al. (1997),

The overall adjustment process may be greater following a distressful reaction if the person to whom one would normally turn in times of trouble is no longer there (Parkes, 1988) For high-level athletes, these individuals are often teammates and /or coaches, with whom there may be considerably less opportunity for interaction after retirement because of their on-going training, competition and travel commitments. This interpersonal loss of significant others may be a risk factor for athletes who assume a narrow identity because their social support may revolve completely around their sporting life (Murphy, 1995; Pearson & Petitpas, 1990; Werthner & Orlick, 1986).

While aspects of help seeking for athletes will be further discussed in the next chapter, it is important to note that loss of support and participation in team activities due to a career-ending injury is a serious risk factor for mental illness in this population. Serious injuries are more likely to occur in sports that involve high-contact collisions and brute physicality. One of the most common, yet most dangerous injuries associated with high contact sports and long-term physical and mental health risk, is a concussion (Iverson, 2014).

Concussions

A concussion, also known as a mild traumatic brain injury (MTBI), can be defined as “a mild brain injury caused by direct or indirect biomechanical forces on the brain resulting in transient disturbances in neurological functioning” (Knollman-Porter et al., 2018, p.778). Individuals at all ages participating in sports that include physical contact are at risk for sustaining a head injury at some point throughout their career. Studies have shown that brain injuries generally occur most frequently in individuals between the ages of 15 -24, with 1.6 to 3.8 million sport-related concussions occurring each year in the United States. (Faul et al., 2009; Harmon et al., 2013). The prevalence of concussions increases substantially in sports, and high-contact sports in particular (Brett & Solomon, 2017; Gessel et al., 2007). Zuckerman et al. (2015) discovered that approximately 10,560 concussions per year are diagnosed throughout college athletics, averaging 4.7 concussions per 10,000 student-athlete exposures to a game or practice. Male wrestlers averaged 10.92 concussions per 10,000 exposures, with men’s hockey at 7.91 and football at 6.71 concussions per 10,000 exposures. Football also exhibited the highest sheer number of annual concussions, with approximately 3,417 clinically diagnosed concussions per year. Short-term symptoms from a sports-related concussion typically involve transient physiological complications such as loss of consciousness, migraine headaches, sensitivity to light and noise, feelings of nausea or vomiting, decreased attention span, and memory loss (Brett & Solomon, 2017; Knollman-Porter et al., 2018; Rice et al., 2017). These symptoms typically last one-to-four weeks and often naturally dissipate with rest (Gouttebauge, 2017; Kroshus et al., 2015; Rice et al., 2017).

In approximately 10-20% of cases, concussion-related symptoms do not subside in a one-to-four week time period, and evolve into a condition known as “post-concussion syndrome” (Gouttebauge et al., 2017; McCrorey et al., 2016; Todd et al., 2018). Post-concussion syndrome

(PCS) occurs when cognitive, visual and balance symptoms continue for months or years after the initial MTBI. While the physical symptoms of this disorder can hinder daily functioning, psychological difficulties are also associated with extended periods of PCS as well. Depression, impulsivity, anger and executive dysfunction are prolonged effects of concussions and PCS that can negatively impact the athlete's health well into retirement if they do not seek help (Brett & Solomon, 2017). Although there are many potential negative consequences associated with this disorder, PCS is often treatable with medical assistance. There are a wide variety of cognitive, visual and balance-related interventions utilized during rehabilitation from PCS aimed at helping the athlete achieve a full recovery and a symptom-free lifestyle (Maroon et al., 2015; Reynolds et al., 2014).

Despite the fact that the symptoms of PCS are treatable, concussion-related brain trauma can still have a significant impact on long-term mental health. Complications such as depression, anxiety, sleep disturbance, impulsivity and substance abuse have all been identified throughout the literature as strongly associated with a history of concussions in former athletes (Finkbeiner et al., 2016; Gouttebarga et al., 2017; Rice et al., 2017). For instance, a study conducted by Didehbani et al. (2013) found that symptoms of sadness, pessimism, guilt, self-criticalness, worthlessness, and suicidal ideation all were significantly correlated with the number of concussions sustained by the retired athlete. Results showed that 40% of retired athletes who had suffered past concussions endorsed mild to moderate levels of clinical depression. Kerr et al. (2014) additionally found that athletes with a history of three or more concussions were 2.4 times to suffer from depression, while other studies have also identified increased levels of impulsivity, aggression, and apathy in this population (Rice et al., 2017). The link between history of concussions and mental illness in former athletes is clearly defined throughout the literature but is not always easily identifiable by the athlete or their loved ones. Many times, these symptoms

do not manifest for years after the athlete retires, and then intensify in a seemingly non-sequential, surprising fashion. This is extremely dangerous if unrecognized, because it can signify the presence of perhaps the most threatening illness associated with repetitive head trauma. This disease is known as Chronic Traumatic Encephalopathy (CTE), and often does not present for years or even decades after the athlete's most recent concussion.

Chronic Traumatic Encephalopathy is a neurodegenerative disease associated with years of repetitive head trauma and concussions that affects behavior, cognition, mood, personality, and brain chemistry of the affected individual (Finkbeiner et al., 2016; Maroon et al., 2015). CTE causes difficulties in learning and memory, executive dysfunction, impulse control, aggression, apathy, depression, anxiety, and suicidality (Brett & Solomon, 2017; Finkbeiner et al., 2016). Originally deemed "punch drunk syndrome" in the late 1920's, CTE was recognized as a disorder that negatively affected the cognitive abilities of retired boxers (Gouttebauge, 2017). The medical research pertaining to CTE did not drastically progress until the past decade, when it was discovered that football players and other high-contact sport athletes were also at risk of developing the disease. This research discovered that CTE was directly correlated with repetitive exposure to traumatic brain injuries, rather than solely being related to participation in any individual sport like boxing (Gouttebauge, 2017). Neuropathology-based CTE research indicates that years of repetitive head trauma cause the brain to accumulate and distribute an overabundance of "neurofibrillary inclusions in the form of neurofibrillary tangles, neuropil threads and glial tangles; β -amyloid deposits and widespread TDP-Proteinopathy" (Iverson, 2014 p. 162). Unlike PCS, the neurological changes in CTE often occur in a gradual, latent manner, and typically do not become noticeable until middle adulthood (Finkbeiner et al., 2016; Maroon et al., 2015; Stern et al., 2011). The latent nature of CTE and symptom presentation years after the retirement of an athlete can camouflage the disease, mimicking effects of other mental health

disorders such as early onset dementia or Alzheimer's disease. While some symptoms of CTE such as impaired memory and executive dysfunction are similar to these illnesses, other implications of CTE pose a much greater threat to the mental health and safety of the individual.

Although there are many behavioral and psychological symptoms that can indicate the presence of CTE in an individual, an autopsy is currently the only medical test that can definitively diagnose the illness (Gouttebarga et al., 2017). Loss of memory and executive function are two distinct cognitive components of CTE; however, they often present conjunctly with more severe changes in mood and personality. Poor impulse control and aggression are two signature traits of personality change in CTE, often resulting in behaviors such as substance abuse, conflict with others, and self-harm (Finkbeiner et al., 2016; Maroon et al., 2015). As previously mentioned, CTE does not manifest for years after the individual's most recent MTBI, so the connection between these behavioral changes and previous head trauma is not always a readily made observation. Therefore, not understanding the nature of the behavior changes can cause extreme anxiety, fear, and confusion for not only the athlete, but for their families as well. To cope with these new, unexpected and intense emotions, the athlete may resort to methods that are impulsive and dangerous. According to data from Hoyert & Xu (2011) on death in the United States, suicide and accidental deaths such as drug overdoses account for 1.5% and 4.8% of deaths respectively in a given year. In the population diagnosed with CTE, death by suicide has accounted for 11.7%, while accidental deaths have accounted for 17.5% of the total number of deaths (Maroon et al., 2015). In addition to death resulting from impulsive decisions such as suicide and substance abuse, those with CTE have been shown to die earlier from any cause than those without the illness. Maroon et al. (2015) notes that the average age of death in CTE sufferers is 60-69, while the average age of death for men in the general population is approximately 76.2 years. Since over 99% of diagnosed CTE cases have been men, this data is

important to incorporate when working with male athletes in contact high contact sports (Maroon et al., 2015).

One of the primary goals of the present study is investigating attitudes towards help seeking in retired male athletes. Male athletes, particularly those involved in high contact sports, are the dominant at-risk group in terms of concussions and CTE. Maroon et al. (2015) conducted a literature review examining 153 known cases of CTE. Throughout this literature, 152 of those cases were men, with athletes competing in boxing (45.1%), football (41.2%) hockey (3.3%) and wrestling (2%) making up this population. There have been additional cases of CTE found in other contact sport athletes as well, and many more former athletes have been diagnosed since this review in 2015. An additional major concern is the lack of awareness and recognition of these symptoms even as they occur. While CTE is an extreme example of the effects of concussions, even those who do not contract this disease are still at risk from previous head trauma in their sport. Many athletes experience a substantial number of undiagnosed concussions that are never treated, which allows them to continue competing in their sport while unknowingly suffering from a mild traumatic brain injury. For instance, a study done by Cottler et al. (2011) investigating opioid abuse in former NFL players, displayed that 98% of drug abusers in the study's sample also reported a history of undiagnosed concussion as well (Finkbeiner et al., 2016). Despite the severity of risk factors associated with injuries, and head trauma in particular, athletes are extremely resistant to seeking help or even discussing the long-term health implications of sport. This places these individuals at an elevated risk for current and future health complications both physically and emotionally, many of which they do not recognize or plan for during their years of college athletics.

Physical Health Complications

Concussions, career-ending injuries, and retirement in general can clearly impose a serious risk on an athlete's mental health. When long-term or permanent physical health challenges additionally influence an athlete's quality of life, the risk of mental illness drastically increases. Simon & Docherty (2013) conducted a study comparing the perceived quality of life in retired Division I college athletes to a non-athlete control group. Results of the study confirmed that retired athletes exhibited poorer scores in categories of physical functioning, depression, fatigue, sleep disturbances, and pain interference. Schwenk et al. (2007) also found that long-term physical health complications of retired athletes, particularly football players, were extremely common. In this study involving 1,617 retired college and professional football players, 48% of participants identified struggling with chronic pain, 29% loss of fitness and exercise, 28% weight gain, 28% trouble sleeping, and 27% transitioning to retirement. Pain can often be a common denominator in many of these conditions and is a major contributing factor to symptoms of depression and anxiety as well. Athletes competing at the college level exert a tremendous amount of physical effort on a daily basis. They often continue to play and practice while injured, and over-train without allowing the body adequate time to heal. Simon & Docherty (2013) found that 70% of former Division I college athletes admitted to playing or practicing with an injury, while only 33% of non-athletes reported exercising while injured. While the athlete's body may be able to withstand the relentless physical demands that occur while competing, long-term physical health often suffers as a result. Evidence of joint and spine degeneration has been found to be significantly higher in retired athletes compared to the general population, with substantial increases in conditions such as osteoarthritis (Kucera, 1995; Simon & Docherty, 2013; Videman et al., 1995).

Osteoarthritis (OA) is recognized as the most common joint disorder in the world, causing significant harm and deterioration to musculoskeletal joints and cartilage. (Arden, 2006; Hunter et al., 2008; Schuring et al., 2016). Symptoms of pain in the affected joints are directly associated with the presence of OA, often leading to limitation in mobility and daily functioning. Approximately 10-20% of men in the United States over the age of 35 suffer from Osteoarthritis. The prevalence of OA in retired male athletes is significantly higher, with approximately 33% suffering from this disease (Schuring et al., 2016). Collision sport athletes such as those participating in football, hockey, wrestling, and lacrosse are at an increased risk for developing osteoarthritis later in life due to the higher risk of injury associated with these sports. Research has shown that osteoarthritis is a very common condition among retired college athletes, and can often lead to depression, anxiety, and lower perceived quality of life (Schuring et al., 2016; Schwenk et al., 2007; Simon & Docherty, 2013). In fact, Turner et al (2016) found that 37% of retired athletes with OA also suffered from depression and anxiety, in comparison to 19% of those without OA. The pain associated with Osteoarthritis can be a debilitating factor in quality of life, as it prohibits individuals from maintaining an active lifestyle. Compared to non-athletes, retired Division I athletes were found to be 2.5 times more likely to be limited in daily activities such as personal hygiene, interacting socially, completing activities at work, and exercising (Simon & Docherty, 2013). The presence of pain in OA not only contributes to the development of mental illness in retired college athletes, but often prohibits them from engaging in protective factors such as exercise.

Exercising and maintaining an active lifestyle are widely known as major protective factors against both physical and mental illness. Exercise has been proven to lower risk of anxiety, depression, anger, diabetes, hypertension, heart disease, cancer, obesity, and bone/musculoskeletal conditions (Simon & Docherty, 2013; US Department of Health & Human

Services, 2017; Warburton et al., 2006). In sports, athletes often exercise intensely every day, regularly producing endorphins and feelings of productivity. When they retire, although they lose the benefit of active competition, athletes can still rely upon familiar coping strategies such as exercise to feel healthy and manage symptoms of distress. However, when an athlete's body is compromised to the point of chronic pain or osteoarthritis, exercise no longer becomes a feasible option. Athletes often focus on short-term production and success while competing at an elite level during their college career. They will often go to extreme measures such as overtraining in order to compete at a high level during the next game, match, or meet. The long-term physical ramifications of these behaviors are extremely dangerous however, as they have been shown to lead to musculoskeletal conditions, osteoarthritis, and eventually depression (Schuring et al., 2016). Limited ability to exercise, interact socially, or engage in once pleasurable activities can often lead to a higher intensity of depression, causing the athlete to resort to alternative methods of coping such as overeating or using substances.

Additional long-term health consequences suffered by retired athletes that can lead to mental illness are related to food intake, nutrition habits, and substance abuse. Studies have shown that 42% of retired athletes have exhibited significantly higher levels of "adverse nutrition behaviors," while only 26% of current athletes report engaging in the same food related practices (Gouttebarga et al., 2015 p.196). Although many athletes prioritize their fitness and nutrition behaviors, these results may reflect the fact that some habits can become detrimental to long-term health. For example, athletes in collision sports such as wrestling and football have a higher focus on maintaining a certain weight necessary to play while they are actively competing. Wrestlers are categorized into specific weight classes that they are required to achieve in order to compete. NCAA Football players are not mandated to meet a specific weight-criteria in order to play; however, they are often asked to maintain a certain playing-weight during the season. It has

been shown that wrestlers will often utilize radical and dangerous methods to meet a specific weight criterion such as extreme dehydration, restricted caloric intake, and excessive last minute exercise. Studies by Alderman et al. (2004) and Crighton et al. (2016) identified cases in which wrestlers actually lost 10% of total body mass in less than 24 hours prior to a weight measurement. These unhealthy eating behaviors may develop during an athlete's college career but can negatively affect the athlete well after they retire from sport. In fact, results from a study done by Rouveix et al. (2007) reported a high prevalence of eating disorders in this population. Studies examining retired athletes involved in weight-cycling sports such as boxing and wrestling have also noted that prior eating and weight cutting habits may contribute to the development of obesity later in life (Saarni et al., 2006). Research conducted by Pihl & Jurimae (2001) discovered that "most former athletes (59.3%) tend to gain weight during 15-30 years after their sports career is discontinued" (p. 1061). While this may appear to be an obvious occurrence due to the natural aging process and decreased physical activity, studies have found that retired athletes cite excessive weight gain as a contributing factor to depression and suicidality (Hatton, 2013). In addition to unhealthy eating behaviors and excessive weight gain, symptoms of depression and suicidality can often cause retired male athletes to resort to dangerous coping strategies. This is especially true in men who are not familiar, willing, or comfortable with openly discussing negative feelings, as they may resort to self-medicating with drugs and alcohol.

Substance abuse is an issue for many athletes throughout their lifespan, used to enhance performance, numb physical pain, or alleviate emotional discomfort. Studies have shown that athletes are at a higher risk for abusing substances such as alcohol, prescription painkillers, and anabolic steroids than the general population (Lisha & Sussman, 2010; Parssinen & Seppala, 2002; Veliz et al., 2014). Research has additionally demonstrated that male athletes involved in

high contact sports have the highest propensity for substance abuse in the athletic community (Veliz et al., 2017). The connection between high-contact sports and substance abuse may be attributed to a variety of factors. The increased likelihood of collision and aggressive nature of such sports places these athletes most at risk for injuries and medical intervention. In order to ease the pain associated with injuries, recover from surgery, or play through pain, athletes in high-contact sports often rely upon substances. These sports also prioritize brute strength and aggression, leading athletes to resort to performance enhancing drugs such as anabolic steroids. Finally, most athletes who play high-contact collision sports are men. Men have been shown to have much lower incidents of help-seeking than women and may resort to more impulsive methods of coping such as self-medication, than openly talking about negative feelings. Etiology aside, research has stated that substance abuse is highly connected with mental illness such as depression and anxiety, physical complications, and suicide (Di Lorenzo et al., 2014; Juyal & Bhavnagar, 2017). Anabolic steroid use, which is commonly found in the athletic community, has been shown to alter behavior and negatively impact both physical and mental health.

According to Parssinen & Seppala (2002), “several case reports (Bahkrke et al., 1996; Thiblin et al., 1999; Thiblin et al., 2000) have described the association between [anabolic steroid] use and violent crimes such as murders, child abuse, spouse battery, rapes, and other forms of violence” (p. 90). The combination of increased mental illness and low levels of help-seeking in this population illustrates that retired male college athletes are at increased risk for substance abuse. Because substance abuse is so highly correlated with mental illness, particularly in this population, there is a need to expand upon the literature and increase awareness of these risks before athletes enter into the retirement phase of their career.

Collision vs. Non-collision sports

Substance abuse and several of the mental health complications listed above have been found to be even more prevalent in certain subpopulations of sports culture. Collision sport athletes, and athletes of specific racial and demographic groups, are at increased risk for not only mental health challenges, but avoidance of help-seeking as well. Despite the significant findings of risk embedded in participation of collision sports, few studies have specifically examined the effects that these sports have on retired college athletes. For example, Veliz et al. (2014) found that adolescent collision sport athletes were significantly more likely to abuse drugs and alcohol than were athletes in non-collision sport athletes. Schwenk et al. (2007) found that retired professional football players were at higher risk than the general population for long-term conditions such as chronic pain, osteoarthritis, sleep disturbances, and difficulty adjusting to transition out of sport. Steinfeldt and Steinfeldt (2012) investigated conformity to masculine norms in active college football players but did not examine the same phenomenon in retired college football players or other collision sport participants. This trend throughout the literature continues in studies measuring help seeking in collision sport athletes as well. A study conducted by Martin (2005) found that collision sport athletes have lower levels of help seeking than non-collision sport athletes; however, this research was conducted with high school athletes. It is also important to note that even studies that have investigated help seeking trends in retired athletes, have largely utilized populations of either former professional athletes, or athletes from other countries. Iverson (2014) conducted a review of the literature on CTE and suicide in retired athletes, but this study focused predominately on studies including professional collision sport athletes. Similarly, Martin, Fogarty and Albion (2014) measured life satisfaction among retired professional athletes; however, they studied retired athletes from Australia, rather than the United States. Additionally, a meta-analysis conducted by Park et al. (2013) reported that nearly half of

the previous studies examining mental health issues in retired college athletes have been qualitative investigations. There is a clear need for current, quantitative, empirical studies to analyze mental health in retired college athletes from different sports, and across racial groups, in a more specific and scientific approach. Such research is warranted, as collision sport athletes and minority populations in the United States have both been identified as more susceptible to stigma associated with mental health services, and mistrust of related healthcare providers (Martin, 2005; Vogel et al., 2011). Research thus far has largely focused on help seeking behaviors in current athletes; however, there is a substantial gap investigating mental health and help seeking in retired athletes, and retired athletes of different sports and racial groups in particular (Heird & Steinfeldt, 2013; Martin et al., 2004; Miller & Buttell, 2018; Schwenk, 2007).

Race

Despite inconsistency throughout the research on athletes, studies have revealed that in general, people of color view help-seeking and mental health services less favorably than White Americans (Corrigan & Watson, 2007; Vogel et al., 2011). This is an area of concern, particularly for retired athletes already at risk for a plethora of psychological difficulties, because it adds an additional factor potentially deterring them from seeking psychological assistance. For example, Rao and Hong (2016) reported that male football players of color exhibit the highest rates of suicide in college athletics. Given that 53% of college football players are men of color, equating approximately 39,000 student athletes, these numbers are particularly alarming (NCAA, 2018). Statistics from the NCAA (2016) as well as empirical studies such as Sellers and Damas (1996) have also indicated that male athletes of color are significantly less likely to feel a sense of inclusiveness and acceptance on their athletic teams, and they have lower levels of life satisfaction than White college athletes. Furthermore, NCAA (2018) reports that graduation rates

specifically among Black male football players (73%) were substantially lower than graduation rates among White male football players (91%). A study conducted by Beamon and Bell (2006) states that levels of athletic identity may be higher in male athletes of color, while identification as a student athlete may be lower in this population. As previously discussed, high levels of athletic identity often lead to negative psychological ramifications for athletes, particularly during retirement (Brewer et al., 1993; Martin et al., 2014; Oregon, 2010; Weatherhead, 2015). Despite this evidence suggesting that retired male athletes of color may be at increased risk for a plethora of mental health complications, there continues to be a significant lack of help-seeking in this population. Chapter II will primarily focus upon potential causes associated with lack of help-seeking, while simultaneously highlighting the extant research and empirical gaps found in studies that address risk factors and help-seeking in retired college athletes of color.

Purpose of the Study

The purpose of the present study was to further investigate the lack of help-seeking in an at-risk population. Many of the psychological and physical difficulties reviewed above are pervasive for many athletes involved in a wide variety of sports. However, as previously noted, it is evident that many of these issues are experienced at a higher level in retired athletes, male athletes, and retired male athletes in collision sports. Despite the risks, this is a population in which mental health counseling is either ignored, unexamined, or highly stigmatized, due to societal assumptions related to masculinity and self-reliance associated with this group. The objectives of this study were multifaceted. One main priority was to address existing gaps in the literature and to better understand specific factors that are affecting attitudes toward help seeking in this population. The influence of sport culture, masculinity in collision sports, and race are all factors that may be lowering perceptions of help seeking yet are very much unexamined in the extant research. An additional gap in the literature involves the population itself. Many studies

related to mental health in sports investigate young athletes, active college athletes, or professional athletes. Retirement is an enormous stressor for athletes, yet it is not a highly prioritized variable in most empirical studies. Retirement is a significant stressor for athletes, and yet, it is not a highly investigated variable in most empirical studies. Athletes who have dedicated their entire lives to sport participation, particularly college athletes, who do not achieve a professional career or identity in sports, are at-risk, and yet, not being studied.

Retirement can be even more detrimental to the mental health of an athlete if they are not aware of the psychological implications associated with loss of sport or are not open to seeking-professional help when experiencing emotional distress. Understanding if there is a significant difference in help seeking between various sports and racial groups allowed us to identify which athletes may potentially be most at risk upon retirement. Men of color formerly involved in sports such as football, wrestling, hockey, and lacrosse, may be the most at-risk population in the entire culture of sports for developing mental illness. This study attempted to provide concrete evidence for this hypothesis, stimulate conversation and notoriety for this population, highlight the obstacles that may prevent help-seeking, and contribute to future treatment methods.

Significance of the Study

Statistics from the NCAA (2016) show that approximately 98% of student athletes do not continue their career at the professional level. In 2018, 91,867 male athletes competed at the college level in the four sports of football, hockey, lacrosse, and wrestling, (NCAA, 2018). The data thus suggests that approximately 90,029 student athletes in these sports eventually experience the loss of sport following retirement from college athletics. Furthermore, as previously mentioned, approximately 90% of recently retired athletes do not seek mental health services during or shortly after career termination (Gliga et al., 2018). This is an inordinate number of people at risk for mental illness, with very little empirical research investigating the

factors placing them at risk. This study benefited a very specific subset of the population that many are not even aware are in danger of developing such pervasive illnesses. Data from this research contributes to lowering stigma in the sports community by normalizing mental health struggles of athletes. It increases awareness of both mental illness and maladaptive help seeking behaviors in this group by identifying those most at risk. Results provide rationale for earlier intervention and more proactive discussions about mental health, allowing athletes, parents, coaches, and trainers to better identify warning signs of psychological distress. This study additionally assists in clinical work, by providing mental health professionals with information about etiology, risk, and psychological patterns of clients in the athletic community. Future research could also benefit from this study, as mental health professionals now have an increased understanding of attitudes towards help-seeking in this population. Expanding upon the literature to better educate the public about the risk factors for this population and their low incidence of help-seeking is a progressive step towards increasing awareness and treatment of retired college athletes.

Research Questions

The following are the research questions that were addressed by this study:

1. Do participants who score higher in masculinity and traditional male role norms have less positive attitudes toward help seeking?
2. After controlling for masculinity, do retired male athletes in non-collision sports (baseball, swimming, golf, track, tennis, and volleyball) have more positive attitudes toward seeking help than those who competed in collision sports (football, ice hockey, wrestling, and lacrosse)?
3. After controlling for masculinity, do White retired male college athletes have more positive attitudes towards seeking help than retired male college athletes of color?

Hypotheses

1. Participants who score higher in masculinity and traditional male role norms will have less positive attitudes toward help seeking.
2. After controlling for masculinity, retired male athletes in non-collision sports will have more positive attitudes toward seeking help than those who competed in collision sports.
3. After controlling for masculinity, White retired male college athletes will have more positive attitudes towards seeking help than retired male college athletes of color.

Definition of Terms

Collision Sports: Collision sports are those during which routine, purposeful, body-to-body collisions occur as an intentional goal, and a legal and expected part of the game (Meehan, 2016; p. 255). For the purposes of this study, collision sports included football, ice hockey, wrestling, and lacrosse.

Race: For the purposes of this study, race was defined as self-reported membership in one or more of the following groups: White/Caucasian, Black/African American, Asian or Pacific Islander, Hispanic/Latino, Native American, Other.

Masculine Norms: Masculine norms are thoughts, attitudes, and behaviors associated with male gender norms of aggressiveness, heterosexuality, competitiveness, dominance over women, physical strength, not showing emotion, actively playing sports, and a desire to attract the opposite sex (Mahalik et al., 2003; Rosenberg et al., 2017; Steinfeldt & Steinfeldt, 2012). For the purposes of this study, masculine norms were defined as the participant's score on the Male Role Norms Inventory-Short Form (Levant, Hall & Rankin, 2013).

Attitudes Toward Help-Seeking: Help seeking involves a "request for assistance from informal supports or formalized services for the purpose of resolving emotion, behavioral, or

health problems” (Unrau & Grinnell Jr., 2005, p 516). For the purposes of this study, attitudes towards help seeking were defined as the participant’s score on the Attitudes Toward Seeking Professional Psychological Help instrument (Fischer & Farina, 1995).

Athletic Retirement: Athletic retirement is "the process of transition from participation in competitive sport to another activity or set of activities" (Coakley 1983, p. 1). For the purposes of this study, a retired athlete was removed from their former athletic team’s official roster and had not competed or practiced with the team for at least three months.

CHAPTER II

Introduction

This chapter will focus on the extant literature examining factors that may influence negative attitudes towards help seeking in retired male college athletes. Building upon the discussion in Chapter I, that identified the need for this study, which included investigating the various disorders suffered by former college athletes, and citing gaps in the current literature, Chapter II will describe specific reasons suggested in the literature related to underutilization of mental health services for this population. Because there is a limited amount of research focusing specifically on retired male college athletes, this literature review will discuss the impact of help seeking variables on both current and former college athletes, while noting empirical gaps and discrepancies in the extant research. The chapter will begin by outlining sports culture and cultural expectations of self-sufficiency and resilience that may deter athletes from seeking professional psychological help. Next, research on stigma towards mental health counseling in both mainstream society and sports culture will be reviewed, with focus upon concepts such as self-stigma, public-stigma, and the invisibility of mental illness. The chapter will continue by examining the impact of collision sport participation and high levels of masculinity on attitudes towards help seeking in athletes. Finally, patterns of help seeking within different racial groups will be reviewed, particularly focusing on how aspects of shame, stigma, and mistrust associated with mental health treatment contribute to low levels of help-seeking in people of color. The chapter will conclude with a general summary of the current literature, and review how this study expanded upon previous research to help at-risk athletes.

Sports Culture

Sports culture has many positive benefits that help foster personal growth both on and off the athletic field or court. Concepts such as mental toughness, teamwork, trust, stamina and

persistence are introduced to athletes from the time they initially begin their sporting careers as children. Participation in competitive sports contributes to the socialization and development of certain personality characteristics in young athletes (Steinfeldt et al., 2009; Vogel et al., 2007). According to Coulomb-Cabagno & Rasclé (2006). Sports culture “is actively involved in the individuals socialization and one often highlights the role it plays in developing moral values such as support fair play, solidarity or cooperation” (p.1981). College athletics, in particular, provide athletes with social and professional opportunities, leadership skills, and confidence in both goal setting and conflict management (Ackerman, 2011; Melendez, 2006; Watson, 2005). There is clear evidence that participation in sport and immersion in sports culture has a multitude of benefits to the personal development of an athlete. There is also a substantial amount of research however, that illustrates potential negative consequences of involvement in sports culture as well.

Mantras such as “suck it up”, “push through the pain” and “never show weakness” are frequently utilized in the sports world to empower an athlete to handle the pressure and adversity that often accompany participation in competitive sports (Martin, 2005; Watson, 2005). These ideologies can absolutely be beneficial in terms of enhancing an athlete’s ability to develop resilience during periods of extreme physical exertion and high pressure. Problems arise however, when athletes develop anxieties, stressors, and issues of emotional distress that inhibit their ability to cope with adversity in a healthy manner (Brewer et al., 1993; Kissinger et al., 2011, Watson, 2003). Mantras regarding toughness in sports culture are predominately utilized to motivate athletes to push through discomfort and help themselves or others attain a specific goal. When they feel tired, weak, or vulnerable during a workout, practice, or game, athletes are conditioned to ignore these sensations and complete the objective at all costs (Watson, 2003). While these qualities can provide many benefits to the athlete with respect to resilience, they are

not conducive to endorsing mental health counseling as an acceptable emotional outlet (Bauman, 2015; Ong & Harwood, 2018; Watson, 2003). Athletes who have been positively reinforced for their mental toughness and perseverance are simply not trained to openly express pain and vulnerability, two major facets of seeking psychological help (Bauman, 2015; Kissinger et al., 2011). Mental health counseling is considered a taboo topic that can signify weakness, incompetence, and instability in athletes who are expected to exhibit high levels of strength and resiliency at all times (Steinfeldt et al., 2009; Etzel & Watson, 2007; Watson, 2005). Studies have shown that over-identification with sports culture traits of toughness and perseverance leads athletes to view mental distress as a weakness, intentionally avoid mental health providers, and underutilize mental health services (Beauchemin, 2014; Etzel & Watson, 2007; Watson, 2005). As noted by Bauman (2015), “mental toughness and mental health are seen as contradictory terms in the world of elite performance” (p. 135). In a result-driven environment like sports where there are clear winners and losers, athletes may see help seeking as a lack of self-sufficiency and an admission of defeat (Watson, 2006). Sports culture encourages the general avoidance of help seeking behaviors and can also demean or denigrate individuals who exhibits any form of emotional vulnerability (Kissinger et al., 2007; Kroshus et al., 2015; Watson, 2006). In an at-risk population such as retired male college athletes who were raised and socialized through sports culture, retaining this negative perspective of help seeking can be detrimental to mental health.

An additional factor of sports culture that can discourage athletes from seeking psychological help is the closed system mentality of college athletics (Ackerman, 2011; Ferrante et al., 1996; Watson, 2003). According to Watson (2003), intercollegiate athletics have been described as a closed system within the institution that operate somewhat independently of the university, and attempt to address all issues and services related to athletes, within the athletics

department. While this closed system of college athletics may no longer directly pertain to older, retired college athletes, the mentalities developed during their active career may have discouraged help seeking from providers not associated with sports. Research has suggested that college athletes have more negative attitudes toward receiving professional counseling services than the general population, and are likely to utilize people they personally trust such as a coach, trainer or teammate for support during times of emotional distress (Ackerman, 2011; Watson & Kissinger, 2007; Worthy, 2017). Despite the closed system mentality, counseling services, and psychological help have historically been scarce in college athletic departments. Noren (2017) reported that as of January 2014, fewer than 25 Division I college athletic departments had a full time licensed mental health practitioner employed on staff. According to the NCAA (2019), there are nearly 350 colleges and universities that are members of Division I, indicating that as of 2014, only 7% of these athletic programs had full time licensed mental health professionals on staff. These numbers have significantly increased over the past few years, with almost 40% of all Division I athletic departments hiring mental health clinicians as of 2016; however, this also means that approximately 60 % (about 250 Division I athletic programs) still did not employ full time mental health counselors. These statistics undeniably illustrate that seeking psychological help has not been a priority, expectation, or norm in the culture of college athletics for a very long time (Kliegman, 2017). Athletic departments typically have substantial resources located on site dedicated to physical health, strength and conditioning, performance training, and nutrition; however, by not including mental health services as an available resource, the literature suggests that athletes may perceive counseling or psychological help to be of lesser importance (Kliegman, 2017). Leaving the athletic department to seek help may elicit uncomfortable feelings for athletes, which may be misconstrued as being not normal or not expected for individuals competing at the collegial level (Kliegman, 2017). Emphasizing and prioritizing

counseling services in athletic departments has been widely cited throughout the literature as a way to normalize mental health treatment for athletes, and reduce common misconceptions or negative stereotypes associated with help-seeking in sports culture (Kliegman, 2017; Watson & Kissinger, 2007; Watson, 2003).

Among the many negative beliefs held by college athletes cited in the literature regarding lack of help-seeking, one of the most pertinent is the belief that a nonathletic professional would not have the capacity to understand or empathize with their psychological struggles (Ackerman, 2011; Gavrilove & Donahue, 2018; Martin et al., 1997; Watson, 2005). Despite the various challenges and areas of distress associated with participation in college sports, many stereotypes exist throughout the general public that view athletes as a privileged group (Watson, 2005; Watson & Kissinger, 2007). While there are many benefits of being a college athlete, these assumptions of privilege do not pertain to all athletes in college sports, and ignore additional stressors that are in fact unique to this population. Assumptions are often made about college athletes living a “celebrity” lifestyle, and receiving preferential treatment from the university because of their high-status position (Ackerman, 2011; Watson, 2005). Again, while this may be true for a select group, it is not an accurate assumption for all college athletes. An additional stereotype regarding college athletes relates to their academic dedication and overall intelligence. Many individuals in the general public believe that college athletes do not earn admission to a university, and are only accepted to a school because of their athletic abilities (Ackerman, 2011). This assumption also relates to the “dumb-jock” stereotype, which labels college athletes as academically unqualified illegitimate students whose only interest is athletics, who expect and receive special treatment from professors and others. The perception is that in order to remain eligible and participate in sports they put in minimum effort, do little

academic work, take easy classes and have others do their work for them (Simons et al., 2007, p. 251).

All of these assumptions portray the college athlete negatively, and may influence the beliefs of the general public. Many college athletes may therefore believe that a non-athlete counselor will be unable to genuinely understand the gravity of their problems. Empirical research supports that athletes do in fact prefer counselors associated with athletics, and hold significantly less favorable views toward professionals with no history or knowledge of sports culture (Gavrilova & Donahue, 2018; Moreland et al., 2018). Studies have also shown however, that athletes avoid treatment because they feel it will be ineffective. Research has found that athletes view mental health professionals as having a “shrink” image, and believe that psychologists only work with individuals who are suffering from serious mental illness (Kissinger et al., 2011; Watson, 2005; p.444). This belief may result in a fear that not only will counseling be ineffective, but will actually create an increase in psychological distress (Martin, 2005). Athletes may worry that by participating in counseling or seeking psychological help, they are succumbing to the fact that they may have a pathological issue, and may begin to self-stigmatize (Latalova et al., 2014; Vogel et al., 2007). Kissinger et al. (2011) further indicates that counseling is highly stigmatized among many in the athletic community, and that individuals in sports culture very much worry about their public and personal reputation when considering psychological treatment.

Mental Health Stigma

Beyond the negative beliefs fostered by sports culture, seeking mental health treatment has been labeled by many people in general western society as an embarrassing, shameful, or secret activity that may result in discrimination, fear, distrust, and avoidance from others (Corrigan & Penn, 1999; Stickney et al., 2012). Stigma, which can be defined as “a mark or flaw

resulting from a personal or physical characteristic that is viewed as socially unacceptable,” has been identified as one of the most pertinent barriers to an individual seeking psychological help (Ong & Harwood, 2018; Topkaya, 2014; Vogel et al. 2007, p. 40). Many people often view mental health treatment as a last resort, and will not seek counseling even when recognizing the need for help, due to a fear of disapproval from others (Topkaya, 2014). This is problematic because studies have reported that an individual’s attitude toward seeking mental health treatment is in fact the best indicator of a person actually seeking psychological assistance when experiencing distress (Ackerman, 2011; Topkaya, 2014; Watson, 2005). Watson et al. (2005) further states that help-seeking behavior is seen as an adaptive mode of coping with personal concerns or problems, and individuals who are more willing to seek help experience better adjustment and fewer emotional and behavioral problems (Fallon & Bowles, 2001).

Stigma directly impacts the attitudes of people considering counseling, resulting in negative beliefs about mental health treatment and stereotypes about individuals who do in fact seek help (Ong & Harwood, 2018). Studies have shown that stigma and fear of judgment not only contribute to negative beliefs about counseling, but also lower self-esteem and self-worth, increase depression and anxiety, and significantly reduce help seeking behaviors (Cooper-Patrick et al., 1997; Fink & Tasman, 1992; Quinn & Chaudoir, 2009; Stickney et al., 2012). Stigma of mental health treatment is extremely influential in sports culture as well, in terms of deterring athletes from seeking psychological help (Ong & Harwood, 2018; Watson, 2005). Research has shown that the fear of being stigmatized by others is actually one of the most powerful motivators for athletes to underutilize or completely avoid any form of mental health treatment (Watson, 2005). Despite the influential nature of stigma on athletes’ attitudes toward seeking help, there is a substantial gap in the literature examining this issue in both current and former players (Martin, 2005; Martin et al., 2004; Moreland et al., 2018; Wasylikiw & Clairo, 2018).

There are multiple types of stigma that can affect an athlete's beliefs about mental health counseling. Self-Stigma and public stigma have been identified throughout the extant literature as two of the most pervasive forms of stigma that deter an athlete from actually seeking help when feeling emotionally overwhelmed.

Self-stigma is defined as “the perception held by the individual that he or she is socially unacceptable, which can lead to a reduction in self-esteem or self-worth if the person seeks psychological help” (Vogel et al., 2007, p.41). The fear of judgment from others becomes internalized in self-stigma and directed towards oneself in the form of depression or extremely low self-esteem (Latalova et al., 2014). This can be particularly difficult for someone who has been socialized through the sports culture. Since many athletes are conditioned with axioms of toughness and resiliency, an incongruence can develop between the athlete's private identity as a mentally tough individual, and their decision to show vulnerability and seek psychological help (Watson, 2005). This confusion can cause a tremendous amount of distress for an athlete. They may begin to believe that they are inept, weak, or inferior because they are considering seeking mental health treatment. In order to avoid these negative beliefs and feelings of shame or embarrassment, athletes will completely avoid seeking mental health services in attempt to maintain a positive self-image (Ackerman, 2011; Latalova et al., 2014; Vogel et al., 2007). Research indicates that self-stigma is negatively correlated with help seeking thoughts and behaviors, and that an athlete's self-deprecating, private beliefs also become intensified by negative expectations from the public (Topkaya, 2014; Vogel et al., 2007; Watson, 2005).

Public stigma can be defined as “society's negative beliefs, attitudes, and behavioral consequences about mental disorders, all of which lead to stereotyping, prejudice and discrimination against people with mental health disorders” (Topkaya, 2014, p. 481). Public stigma is another form of mental health stigma frequently identified throughout the literature;

and like self-stigma, correlates negatively with attitudes toward help seeking (Corrigan, 2004; Topkaya, 2014; Vogel et al., 2007). The distress that athletes experience when worrying about how others will perceive their decision to seek mental health counseling is an example of public stigma. Mental health treatment is already widely stigmatized by many people in the general public due to a fear of judgment from others. High profile athletes, such as those who have competed at the college level, may also have high visibility and “celebrity status” that is easily scrutinized by outsiders such as fans and media, which can compound this fear (Ackerman, 2011; Watson, 2005). Mentalities developed by athletes at a young age, particularly in relation to stigma and masculinity, have been shown to be rigid and consistent over time (Vogel et al., 2011; Topkaya, 2014). This suggests that even if the athlete is retired and no longer in the immediate spotlight, they have been socialized with sports culture norms that can still affect decisions and beliefs after their college career ends.

One of the major components of sports culture that teaches an athlete to avoid admitting weakness and seeking psychological help is the fear that others will perceive the athlete as mentally weak, or incapable of competing at a high level in their sport (Moreland et al., 2018; Sudano et al., 2017; Watson, 2005). Studies have found that members of their social and inner circles such as coaches, friends, family, and athletic trainers (Brown et al., 2014; Sudano et al., 2017) directly influence athletes’ decisions regarding help seeking and mental health. Sports involve a high level of trust among teammates and coaches in order to produce success on the field or court. If an athlete is perceived as being weak or incapable of handling pressure due to mental or emotional difficulties, others may begin losing trust in the individual as a tough or resilient competitor. The fear of judgment or mistrust from others can affect the athlete’s performance, enhance feelings of shame or inadequacy, and lead to anxiety about failing the team (Bauman, 2015; Watson, 2005). Correia and Rosado (2018) state that “failure is perceived

as threatening, and feared, by athletes who associate it with aversive consequences” (p. 75). Some of these consequences are related to the athlete’s status on the team and the responsibility they are given on the field or court (Correia & Rosado, 2018; Gould et al., 1983; Passer, 1983). If others feel the athlete is not mentally tough enough to perform, coaches may begin reducing playing time or replacing the athlete with another player (Ackerman, 2011; Bauman, 2015; Fletcher et al., 2013; Watson, 2005). Teammates may begin altering their play to overcompensate for the athlete’s perceived inability to perform (Watson, 2006). Leadership roles and social status among those on the team may begin to be questioned or negatively perceived (Correia & Rosado, 2018). Overall, the entire team may be affected by an athlete who is deemed incapable of performing because of a mental illness or perceived weakness (Correia et al., 2018). These consequences have a powerful influence on an athlete’s perspective related to admitting weakness, showing vulnerability, or seeking help, and can cause the athlete to neglect their own physical or mental health needs. Kroshus et al. (2015) stated that individuals in a certain social context such as sports will actually prioritize pleasing others and helping the group over their own self-interest. An additional study conducted by Kroshus et al. (2014) on athlete’s underreporting of concussive symptoms also reveals symptoms of depression and anxiety as factors that create a “spiral of silence” among athletes who fear social ridicule or disapproval (Kroshus et al., 2015, p.1007). Injuries such as concussions or symptoms of mental illness are also deemed “invisible injuries” that perpetuate the spiral of silence and deter athletes from seeking help because there is no visible or tangible evidence of their pain (Dean, 2019).

Invisible injuries such as concussions or mental health struggles can be dangerous for athletes in terms of not reporting discomfort or seeking help while in pain (Dean, 2019; Kroshus et al., 2015). As previously mentioned, there are certain "unwritten rules" in sport culture that discourage weakness, help seeking, or prioritizing personal needs over the well-being of the

team. Sport culture socializes and even glorifies athletes who adhere to “sport ethics” by playing through pain or injury for the success of the team (Dean, 2019, p. 23). Individuals who do not abide by these cultural ideologies however, may be perceived as weak or selfish, and find themselves at increased risk of being teased, taunted and ridiculed by teammates, coaches or fans (Kissinger et al., 2007; Kroshus et al., 2015; Ramaecker & Petrie, 2019; Watson, 2005). When an athlete becomes injured, there is typically a noticeable, visual difference in their appearance, posture or movement. Athletes who break a bone may have a cast placed over the damaged body part. Those with ankle or knee sprains will often walk with a limp. There are generalized understandings of pain and injury permeated through sports that normalize athletes struggling with clear, visible, orthopedic injuries (Bloom et al., 2004). These injuries, particularly in collision sports, are extremely common and almost expected throughout a full athletic season. When the injury is not clearly visible however, as with a concussion or mental illness, others begin to wonder why an athlete is not actively competing, and may even start to question the extent of the injury (Bloom et al., 2004; Dean, 2019). Bloom et al., (2004), describes invisible injuries by acknowledging the fact that “there are no crutches, swelling, stitches, or other visual signs of the injury. This makes it very difficult for a casual observer to identify the athlete as injured” (p. 520). This can be extremely detrimental to the confidence and self-esteem of an athlete, who may begin to fear that others are judging their character and beginning to perceive them as weak, dramatic, or even lying about the injury (Dean, 2019). An article written by Dean (2019) quotes a former college lacrosse player struggling with depression and post-concussion syndrome as saying

For the most part, the audience members that I interacted with could not see anything wrong with me, and could not see inside my broken and muddled brain; this invisibility often caused them to dismiss the idea that I was actually injured. Though I

looked normal, my mind and body were completely detached from one another. My body appeared to look normal on the outside, but internally, my mind was far from normal (p. 26).

Invisible injuries can clearly cause substantial distress in an athlete, enhancing the impact of both public and self-stigma. Athletes who are considered incompetent or weak can begin to feel anxious about their own self-worth, and fear judgment from others who may believe they are no longer capable of adequately performing. This can lead to avoidance and negative beliefs about seeking help, as athletes learn through the socialization of sports culture that there are negative consequences for expressing weakness or vulnerability. Collision sport athletes such as those in football, hockey, wrestling, and lacrosse are especially conditioned to avoid showing any signs of weakness on an athletic field (Martin, 2005; Steinfeldt et al., 2009; Vogel et al., 2007).

Athletes in these sports hold some of the most violent and aggressive mentalities in the sports world, and are required to exhibit traits of dominance and toughness at a more intense and consistent level than sports involving less contact (Messner, 1990; Ramaeker & Petrie, 2019; Veliz et al., 2017; Vogel et al., 2007). Furthermore, athletes involved in collision sports have been shown to be more susceptible to mental health stigma, and less open to seeking professional help (Martin, 2005; Ong & Harwood, 2018; Vogel et al., 2007).

Collision Sports

Collision sports are characterized as sports that involve “large numbers of physical collisions and tackles, short repeated sprints, rapid acceleration, deceleration, and changes of direction, and an ability to produce high levels of muscular force extremely rapidly” (Gabbett, 2010, p. 2594). Studies have reported that risk of serious injury, and head and neck injuries in particular, increase with the speed and number of violent contacts associated with a specific sport (Kujala et al., 2003; Clark, 1966). Four sports that are consistently labeled throughout the extant

literature as men's collision sports are football, wrestling, ice hockey, and lacrosse (Maroon et al., 2015; Meehan, 2016; Veliz et al., 2017; Waslkiw & Clair, 2018). These four sports were referred to as "collision sports" throughout this study, as they involve unavoidable, violent physical contact such as hitting, checking, grappling and tackling. Unlike other sports, these sports require protective headgear to be worn at all times throughout the game or match, which attests to the dangerous physical health implications of competitive play. While sports such as soccer and basketball involve a high level of contact between players throughout the game, they do not specifically allow or incorporate intentional methods of brute force, like collision sports. For example, football requires players to physically tackle the opposition in order to attain the goal of forcing them to the ground. Collisions and high levels of physical contact are not only suggested in these sports, but are actually required as a purposeful act in order to participate, even if the collision causes an injury. In contrast, sports like baseball, golf, tennis, swimming and track and field, involve little to no contact between players whatsoever throughout the course of the game. Non-collision sports are those in which purposeful body-to-body contact sporadically or never occurs as a recognized part of the game, and is not allowed in the rules of the sport. (Meehan et al., 2016).

One of the main limitations in the extant research on collision sport participation, is that studies tend to solely focus on the physical health risks faced by the athlete, as opposed to mental health complications or attitudes toward seeking help. Although there are strong connections between physical health risks such as osteoarthritis, concussions, chronic pain, weight gain, and collision sports, studies in the literature tend to focus more on the medical component of treatment. For example, Gabbett (2010) examined injury prediction and soft-tissue injuries in collision sport athletes, and Straub et al. (2008) assessed pain apperception between collision sport athletes and non-collision sport athletes, but neither analyzed the mental health effects that

serious injuries or pain can have upon the athlete's overall well-being. Further, in their analysis of retired collision sports athletes, Pihl and Jurjame (2001) investigated physical health risk factors, such as weight gain and heart problems. While such research is important to understand from a medical perspective, the lack of research investigating associated mental health challenges poses a risk to athletes struggling to mentally and emotionally cope with these health conditions. Even studies such as Brett and Solomon (2017) and Maroon et al. (2015), that do touch on neurological risks associated with concussions and CTE, still focus primarily upon the brain science of head injuries, and aspects of neurocognitive damage that can affect the athlete's functioning. Neither of these studies truly delve into the treatment or counseling aspect of head injuries, nor do they investigate attitudes towards help-seeking in collision sport athletes. The gap in research of mental health treatment and help-seeking is an area of concern because although there are few that exist, the limited number of studies that have investigated help-seeking revealed that collision sport athletes are less likely to seek professional help when experiencing psychological distress, than non-collision sport athletes (Martin, 2005; Vogel et al., 2007). Additional studies will provide a better understanding of help seeking behaviors in collision sport athletes and additional knowledge about physical and psychiatric risks they are facing, which may then be incorporated into mental health treatment practices.

Many studies in the extant literature that have examined help seeking behaviors in athletes either have not compared differences between collision and non-collision sport athletes, or have researched populations other than retired college athletes. As noted in chapter I, studies such as Martin (2005) and Watson (2005), that were foundational in understanding differences in help seeking behaviors between various types of sports, conducted research on active high school and college athletes. Kroshus et al. (2015), in a similar fashion, researched help seeking and concussion reporting behaviors in active college athletes, and did not include football players, ice

hockey players or wrestlers in the study's sample. Veliz et al. (2014) studied substance abuse differences between collision sport and non-collision sport athletes, but with high school aged participants. Other studies such as Gouttebarga (2017), that analyzed concussions and mental health disorders in collision sports, focused on retired professional athletes. Few studies thus far have focused specifically on retired college athletes while examining differences between collision and non-collision sports, despite the general understanding that these athletes may be at higher risk for psychological difficulties. Of the studies that have actually assessed mental health difficulties or help seeking behaviors in retired college athletes, few if any have strictly investigated collision vs. non-collision sports. A meta-analysis conducted by Park et al. (2013) specifically reviewing studies on mental health in retired college athletes, note that future research is needed on sport-specific factors that could influence the psychological state of retired athletes. Additionally, the studies that have specifically focused upon retired college athletes have not included a wide range of participants from multiple sports or NCAA divisions. Kerr et al. (2014) acknowledges the "dearth of research on the current health of former college athletes" (p. 1); however, this study did not differentiate between mental health concerns of collision sport athletes vs. non-collision sport athletes, and only focused on Division I players. This study filled a gap by consolidating these risk factors and addressing them in a population that has yet to be thoroughly examined. In addition to addressing gaps in the literature related to the frequency and intentionality of help seeking in retired collision sport college athletes, it is important to also contribute to the understanding of how negative attitudes toward mental health treatment develop in this population.

There are many possible explanations for negative attitudes towards mental health services found in collision sport athletes. Socialization of aggression, pain tolerance and risk taking associated with these sports may contribute to an avoidance of vulnerability and a

decrease in help seeking behaviors by this population (Messner, 1990; Steinfeldt et al., 2011). Studies such as Steinfeldt et al. (2009), Vogel et al. (2007), and Martin, (2005) have indicated that sport plays a major role in identity development and socializing young athletes, particularly athletes involved in collision sports, to conceal feelings of pain or weakness. Coulomb-Cabagno & Rasclé (2006) note that “sport, as a social practice is actively involved in the individual’s socialization and one often highlights the role it plays in developing moral values such as support, fair play, solidarity, or cooperation” (p. 1981). As previously discussed, the culture of sports can have a profound influence on the development of resilience in young athletes by endorsing traits of mental and physical toughness. While all sports typically emphasize the importance of diligence, hard work, handling pressure, and mental toughness, there are varying degrees of emphasis placed on these ideologies, depending on the specific sport (Martin, 2005; Veliz et al., 2015). For instance, golfers may emphasize the containment of adrenaline and maintenance of cerebral focus, while other sports such as football may prioritize high intensity intervals of aggression and primitive dominance. Collision sports, due to the unique nature of accepting and inflicting high levels of physical contact throughout the course of the game, very much socialize athletes to follow mantras such as “suck it up” and “fight through the pain” (Martin, 2005). Dean (2019) quotes the same retired lacrosse player as stating

Growing up playing contact sports, I had come to understand that taking hard hits, implicit pain, and injury were just a part of the game, and had become so invested and socialized in these sporting cultures that a *little* hit to the head was nothing I couldn’t handle. Unfortunately, due to these normalized and trivialized understandings of pain and injury, many athletes, including myself, were and are subject to a number of negative social, physical and emotional impacts (Young, 2004) (p. 25).

A study conducted by Straub et al. (2008) supports this first-hand account by revealing that collision sport athletes actually have a significantly lower pain apperception than non-collision sport athletes. This may be due to an increased pain tolerance simply because of more exposure to physical contact during competition, or the socialization of young athletes in these sports who learn that pain, violence, and risk are normal and expected occurrences (Messner, 1992; Ramaeker & Petrie, 2019; Veliz et al., 2017; Vogel et al., 2007). Furthermore, the literature highlights a phenomenon of collision sport athletes not only being socialized to ignore pain and inflict violence, but to also view their body as a physical instrument or weapon (Messner, 1990; Ramaeker & Petrie, 2019; Veliz et al., 2017; Young, 1993). The body becomes a “means to and end” to many athletes playing these sports, and their safety and health become of secondary importance (Kroshus et al., 2015; Veliz et al., 2017 p. 243; Young, 1993). For example, Kroshus et al. (2014) found that even when athletes receive psychoeducation on safety risks such as depression, early onset dementia, or CTE, their attitudes towards concussion reporting do not dramatically increase. However, psychoeducation and normalization on reporting behaviors has been found to be one of the most influential interventions that improves athlete’s attitudes toward help-seeking and injury reporting (Kroshus et al., 2015). This suggests that some athletes actually value information about peers’ acceptance of injury reporting at a higher level than information about potential health consequences and brain damage. Murphy and Goldman (2018) highlight this emphasis on concealment of pain and weakness through examples found in the National Hockey League (NHL). The authors note that NHL player Patrice Bergeron was actually praised by teammates and coaches for playing in a 2013 Stanley Cup final game with a separated shoulder, torn cartilage, broken ribs, and a punctured lung. The authors supplement this example by quoting former NHL player Dan Carcillo saying

That's the stigma behind mental health. When you come out and ask for help-especially in a job where you need to be seen as mentally tough, a mental warrior, a mental assassin-you're having anxiety and depression and god forbid you tell somebody, and they break your confidence. It doesn't bode well for someone to come and open up (p.7).

These incidents illustrate the impact of collision sport socialization on embracing pain and masking weakness, but also attests to the high levels of risk-taking behavior in this culture.

Simultaneously, any individuals in these sports showing signs of pain, vulnerability, or perceived weakness, may be condemned or ridiculed within the athletic community (Kissinger et al., 2007; Ramaeker & Petrie, 2019; Watson, 2005; Wheeler, 2016). As a result, collision sport athletes may view help seeking as unacceptable, highly stigmatized, and directly contradictory to the expectations of ignoring pain and risking personal health for the success of the team (Martin, 2005; Ong & Harwood, 2018; Steinfeldt et al., 2011; Veliz et al., 2017).

There is a significant gap in the literature examining how differences between collision and non-collision sports affect the socialization of risk taking behavior of athletes (Ramaeker & Petrie, 2019; Veliz et al., 2014). This is an area of need not only to assess the risks associated with participation in certain sports, but to also understand specifically how contextual differences between sports create unhealthy psychological perspectives and maladaptive behaviors. It has been widely demonstrated that athletes participating in sports such as football, wrestling, lacrosse and hockey are at higher risk for physical injuries due to the high speed and high impact collisions associated with the sport (Kujala, 2003). What is not as frequently noted throughout the literature however, is that mental and psychological difficulties such as substance abuse, cognitive decline, impulsivity, suicide, antisocial behaviors, and negative views toward help seeking are also found at higher rates in collision sport athletes (Iverson, 2014; Steinfeldt et al., 2011; Veliz et al., 2017; Veliz et al., 2014). There are a number of potential explanations for why

participation in high contact collision sports may contribute to these mental health complications. First, it is important to recognize that the very nature of collision sports such as wrestling and football involve short bursts of anaerobic strength designed to produce immediate, impactful results (Veliz et al., 2014). Contrary to the dangerous, violent actions of collision sports, non-collision sports such as tennis, cross country, and golf, value qualities of patience, sustainability, endurance, moderation, and self-control (Veliz et al., 2014). Conditioning and long-term stamina are still important facets of collision sports, especially in hockey and lacrosse where players are constantly running or skating; however, the erratic vacillation of speed, direction, and aggression still fosters quick and impulsive decision making during competition. For instance, Wheeler (2016) describes the game of hockey as follows

A maelstrom of whirling blades and sticks, of sweat and blood and flying limbs, it is a place where pain, blood and danger are constant companions just like joy and beauty. It's a game where many careers are like the vision of Thomas Hobbes of all human life in *Leviathan*: "nasty, brutish, and short" (p.2).

Consequently, studies have shown that the quick bursts and emphasis on aggression, impulsivity and risk taking during competition may translate to behaviors in a collision sport athlete's personal life as well (Steinfeldt et al., 2011; Veliz et al., 2017; Veliz et al., 2014). The aggressive, instinctual nature of collision sports may be a factor in creating higher levels of impulsive actions such as substance abuse, suicide, and even antisocial behaviors in athletes off the field or court (Kavussana & Ring, 2016; Shields & Bredemeier, 2007; Ramaeker & Petrie, 2019; Steinfeldt et al., 2011; Veliz et al., 2014).

Researchers have found an increase in antisocial behaviors such as abuse, intimidation and violence particularly in football players, with some using the term "bracketed morality" to describe the temporary suspension of moral judgment by players during violent sport

competitions (Ramaeker & Petrie, 2019; Shields, 2007; Shields & Bredimeier, 2007; Steinfeldt et al., 2011, p. 218). Bracketed morality may be a factor that transitions to some athletes off the field as well, resulting in harmful, aggressive behaviors and coping mechanisms such as substance abuse and suicide (Steinfeldt et al., 2011). These behaviors are antithetical to many important traits found in seeking and participating in mental health treatment, and they may be a contributing factor to negative views of help seeking by collision sport athletes (Moreland et al., 2018; Steinfeldt et al., 2009; Etzel & Watson, 2007; Watson, 2005; Wasylikiw & Clairo, 2018). Counseling encompasses acts of gradual progress, vulnerability, patience, and self-reflection. Players who are socialized to act in quick, impulsive and violent ways may not be as willing or able to participate in a process like therapy that directly opposes these traits. The fact that most collision sport athletes are male may also be a contributing factor to these negative attitudes. Men exhibit significantly less positive view about counseling than women, and collision sports embody many hyper-masculine qualities such as power, aggression, dominance and control (Martin, 2005; Steinfeldt et al., 2009; Wasylikiw & Clairo, 2018). Gender expectations in sports and in general society breed an environment of masculine norms that may deter many athletes from viewing mental health treatment as a socially acceptable option.

Masculinity

There has been an abundance of empirical research examining the differences in attitudes towards seeking psychological help between men and women. According to a meta-analysis conducted by Nam et al. (2010), women hold a more positive view towards seeking psychological help than men, and utilize mental health services more frequently. This finding has been further evidenced by Steinfeldt et al. (2009), who found that men exhibit a significantly lower tolerance for the societal stigma associated with seeking professional help than women. There are many potential reasons for underutilization of psychological resources by men.

However, research on gender norms has indicated that conformity to traditional, stereotypical, masculine expectations is perhaps the most divisive factor between men and women in terms of willingness to seek help (Good & Wood, 1995; Nam et al., 2010; Leong & Zachar, 1999; Wisch et al., 1995).

Traditional masculinity, which develops at a young age for boys in the United States, refers to “the idea that men are dominant, independent, aggressive and stoic, and typically encompasses four key elements including shunning of femininity, the need to be powerful, self-sufficiency, and aggression/dominance” (Wasylikiw & Clairo, 2018 p. 234). Traditional masculine norms begin to form for boys at an early age, and may be solidified as early as the age of ten (Garland & Zigler, 1994; Leong & Zachar, 1999; Vogel et al., 2011). There are a number of traditional masculine qualities identified throughout the literature. These traits include (a) restricted emotionality, (b) restricted affective behavior between men, (c) self-sufficiency, (d) independence, (e) concealment of weakness and vulnerability, (f) toughness and strength, (g) stoicism, (h) power, (i) dominance and control, (j) a need for success and achievement, (k) endurance, and (l) assertiveness (Leong & Zachar, 1999; Ramaeker & Petrie, 2019; Steinfeldt et al., 2011; Steinfeldt et al., 2009; Topkaya, 2014; Vogel et al., 2011; Wasylikiw & Clairo, 2018). Because behaviors associated with vulnerability, emotional openness, and dependence on others are often necessary qualities for receiving mental health treatment, it is counterintuitive for many men in society to openly seek psychological assistance (Martin, 2005; Ong & Hardwood, 2018; Wasylikiw & Clairo, 2018; Vogel et al., 2011). Messages such as “boys don’t cry” are reinforced early on, teaching boys that expressions of vulnerability, weakness, and emotion are not viewed by society in a positive or welcoming manner (Vogel et al., 2011, p. 369). Studies have suggested that boys are not only encouraged to avoid exhibiting vulnerability in front of others, but that they are actually teased and mocked if they exhibit weakness by crying (Newberger,

1999). As a result, boys become socialized to conceal emotions and avoid showing others that they are in need of any form of emotional support.

Societal institutions such as school and sports influence male socialization, and contribute to the foundation of masculine gender norms in young children (Steinfeldt et al., 2009; Whannel, 2007). Although men learn about gender norms and expectations through general socialization processes, there are certain contexts, cultures and specific environments that emphasize particular traits more fervently than others (Ramaeker & Petrie, 2019). For example, sports have a significant impact upon the construction of gender identity and hyper-masculine expectations of aggression and competition in young boys (Schrack-Walters et al., 2009; Steinfeldt et al., 2009). Sport, identified as “part of the glue of masculine culture” (Messner, 1990, p. 77), intensifies typical societal expectations of masculinity, and not only deters boys and men from seeking help, but actually associates mental health counseling with traits of femininity and homosexuality (Wasyliw & Clairo, 2018; Vogel et al., 2011; Young, 1993). Steinfeldt et al. (2011) describe sports culture as

A fertile field for examining masculine gender role expectations that result from the unique gender socialization processes operating within this domain. Sport represents an influential domain in which boys can learn the social expectations, behaviors, and standards associated with being a man (p. 217).

Sport has been labeled as a hypercompetitive social context where traits of masculinity can be readily displayed, and acts of strength, stamina, and dominance, publicly rewarded (Matos et al., 2018; Ramaeker & Petrie, 2019). Additionally, these lessons and masculine expectations learned during childhood continue into adulthood, and have been described as rigid and resistant to change (Vogel et al., 2011). Men who continue to adhere to masculine attitudes of restricted emotionality and restricted affect subsequently exhibit less positive attitudes towards seeking

help (Ramaeker & Petrie, 2019; Steinfeldt & Steinfeldt, 2012; Vogel et al., 2011). Because these norms develop at such a young age and become engrained in a male athlete's psyche, it can be hypothesized that athletes in the retirement phase, who are no longer directly immersed in sports culture, may still be susceptible to stigmatization associated with seeking mental health treatment (Schwenk et al., 2007; Vogel et al., 2011). One term used frequently throughout the literature to describe the socially dominant and idealized version of hyper-masculinity found in sports, and collision sports in particular, is labeled "hegemonic masculinity" (Steinfeldt & Steinfeldt, 2012, p.117).

Hegemonic masculinity asserts the belief that identifying as a man involves attributes of aggressiveness, heterosexuality, competitiveness, and dominance over women (Steinfeldt & Steinfeldt, 2012; Young 1993). Although masculine ideologies of competitive, goal-oriented, and aggressive mindsets are instilled in female athletes as well, research has shown that women are better able to separate gender identity from athletic identity, and do not assimilate hyper-masculine traits between their identities as rigidly as men (Martin et al., 2004; Messner, 1992; Nixon, 1996). Sports such as football, wrestling, and ice hockey, of which there are very few organized women's leagues, have very high levels of traditional, hegemonic, masculine gender beliefs (Steinfeldt & Steinfeldt, 2012). Men who play these sports are taught that aggressive competition against rival males, demonstrations of physical prowess, and winning, all lead to higher social status and preferential societal treatment (Gage, 2008, Messner, 2002; Steinfeldt & Steinfeldt, 2012). In contrast, individuals who are not high in hegemonic masculinity are often labeled weak, feminine, or homosexual, and are ridiculed or marginalized in the athletic community (Matos et al., 2018; Steinfeldt & Steinfeldt, 2012; Vogel et al., 2011; Young, 1993). Empirical research examining the effects of hegemonic masculinity upon attitudes towards help

seeking has depicted clear negative correlational effects between the two variables (Martin, 2005; Messner, 1992; Watson, 2005).

It is important to note that there are both positive and negative aspects of masculine ideologies found throughout sport culture that can affect the psychological development of athletes. Some of the strengths identified throughout the literature as positive facets of traditional masculinity relate to problem-solving, logical thinking, high levels of motivation, appropriate risk-taking, assertive behavior, and work ethic (Steinfeldt & Steinfeldt, 2012). Although these traits can be beneficial for athletes, particularly during competition, there are a series of negative consequences associated with high levels of masculinity as well. Studies have shown that high levels of masculinity are correlated with depression, anxiety, difficulties with interpersonal intimacy, substance abuse, sexually aggressive behavior, and fewer health promotion behaviors (Heird & Steinfeldt, 2013; Messner, 1990; Ramaeker & Petrie, 2019; Vogel et al., 2011; Wasylkiw & Clairo, 2018; Young, 1993). Men are also four times more likely than women to die by suicide, yet are significantly less likely to seek psychological help when experiencing distress (National Center for Injury Prevention and Control, 2015; Wasylkiw & Clairo, 2018). Despite the negative ramifications and research highlighting the dangers of hyper-masculinity in sports, there is still stigma towards mental health treatment, and encouragement of traditional masculine norms found throughout sports culture. Young (1993, p.382) describes mantras used in traditional collision sport culture by describing sports as...

an industry largely intolerant of injury. "Play hurt and show you can take the pain like a man." As we have seen this is particularly true of heavy contact sports such as hockey and football where discourse is often telling. For example, the phrase, "you play unless the bone sticks through the meat" has long been used to rationalize injury [in football]. As Messner has noted elsewhere, "To get the most out of athletes, coaches tend to use

what Dave Meggyesy calls ‘the doomsday weapon’ which is to threaten the athlete’s masculinity and call him a ‘sissy or a ‘woman’ if he doesn’t play while he’s hurt (1992, p. 101).

This example illustrates the messages provided to collision sport athletes of ignoring, censoring and harnessing their feelings or desires to express genuine emotion when in pain. The fact that men, and young boys in particular, are socialized in many cultures to always exhibit a sense of power and masculinity, while simultaneously neglecting emotional expression, can be detrimental to their psychological development (Messner 1990; Vogel et al., 2011). A higher level of understanding is needed in regards to how collision sport athletes are affected by masculine expectations, and how attitudes towards psychological assistance differ among subcultures in the athletic community (Ramaeker & Petrie, 2019).

A study conducted by Martin, (2005) illustrated that high levels of hegemonic masculinity and participation in collision sports are positively correlated with perceived stigmatization of help seeking. However, masculinity has largely been measured in populations other than retired college athletes throughout the extant research. For example, Steinfeldt et al. (2011) examined the effects of masculinity and moral functioning in male high school football players. The results indicated that participant’s identification with the athlete role significantly predicted conformity to traditional gender norms. Despite the intention of gaining more information about masculinity in collision sports, this exclusively examined young, adolescent participants, and did not examine differences between multiple sports. Similarly, Steinfeldt and Steinfeldt (2012) continued their research studying masculine norms in college football players, and discovered that high levels of athletic identity correlated with endorsement of traditional masculine norms in football players. While the results clearly contribute to a need in the research, the authors did not extend their studies to other populations such as retired college

football players, or other collision sport athletes who may also be at risk. These studies, in addition to Ramaeker and Petrie (2019), and Martin (2005) all solely investigated Division I college athletes as well. There is very little prioritization given to investigating male athletes across divisions of NCAA competition, and even less emphasis on retired male college athletes. Additionally, studies that have attempted to measure variables such as the impact of collision sport participation upon mental health difficulties or life satisfaction, have not controlled for the within group differences of masculinity. Perna et al. (1999) found lower levels of life satisfaction among retired African American male college athletes; however, the authors did not control for or measure the effects of masculinity in the analysis. While the authors examined psychological struggles in retired male college athletes, they did not control for hegemonic masculinity as a confounding variable, or account for the fact that men within the study may have drastically different levels of traditional gender norm endorsement. The present study attempted to improve upon the extant research by incorporating masculinity as a covariate, thus controlling for its effects on attitudes toward help seeking between participants from different sports and racial backgrounds.

Race

There are very few studies examining the influence of race upon athletes' attitudes toward seeking mental health treatment. Empirical literature that has been conducted examining racial differences in help-seeking has typically focused upon members of the general population rather than athletes, and has mainly revealed that people of color view help-seeking and mental health services less favorably than White Americans (Corrigan & Watson, 2007; Nam et al., 2010; Sheu & Sedlacek, 2004; Vogel et al., 2011). Studies conducted by Nam et al. (2010), Latalova et al. (2014), Sheu and Sedlacek (2004), Odeja and Bergstresser (2008) and Vogel et al. (2011) all focused upon the effects of gender and race on attitudes toward help-seeking in adults.

The results of these studies primarily discovered connections between gender and minority status with lower levels of help-seeking, and higher mistrust in the healthcare field among people of color; however, none of these studies focused upon athletes. Research that has focused on the link between race and student athletes has also primarily examined the effects of race upon factors such as academics (Beamon & Bell, 2006), life satisfaction (Perna et al., 1999), discrimination (Fuller, 2014) and career choices (Cunningham, 2003) in college athletes of color. While all of these areas of research are crucial to understanding racial influence on college athletes, the topic of help seeking is still underrepresented in the literature. As noted in chapter I, college athletes of color are at higher risk for suicide, less likely to feel a sense of inclusiveness and acceptance on their athletic teams, have higher levels of athletic identity, lower graduation rates, and lower levels of life satisfaction than White college athletes (Beamon & Bell, 2006; NCAA, 2018; Rao & Hong, 2016; Sellers & Damas, 1996). Given these risk factors, further research is warranted to investigate mental health of athletes of color, and help-seeking behaviors exhibited by this population.

Throughout the extant literature, there are many opportunities for race to be incorporated in studies investigating variables of masculinity, collision sports, and stigma; however, many studies have not investigated the impact of an athlete's race when examining attitudes toward mental health treatment. For instance, Barnard (2016) researched the effect of student athlete's perception of mental illness on attitudes toward help seeking. The results were inconsistent with previous findings, indicating that student athletes and non-athletes exhibited the same levels of willingness to seek mental health treatment. This inconsistency may be related to the researcher not accounting for the potential impact of race upon help-seeking attitudes. Similarly, Steinfeldt et al. (2009) examined the impact of masculine gender norms on collision sport college athletes and found that high levels of traditional gender norms did correlate with lower levels of help

seeking. Despite this important finding, the authors did not investigate or analyze the impact of racial differences in the sample. This is not an uncommon occurrence within the extant literature. Additional studies such as Gouttebarga (2018), Gliga et al. (2018), Giannone et al. (2017), Kerr et al. (2014) and Simon and Docherty (2013) all analyzed components of mental health and quality of life in retired athletes, but they did not examine differences in race. The results of these studies primarily revealed that factors such as athletic identity and adjustment to retirement predicted lower levels of life satisfaction and higher levels of mental health symptoms such as anxiety. However, the effect of race within these results is an unknown factor and a potential confounding variable. While some studies have emphasized cultural differences, and included a diverse population of athletes, they did not distinctly focus upon race. Martin et al. (2004) discussed the importance of understanding cultural differences in attitudes toward psychological consultation in athletes by examining help seeking behaviors in athletes from Germany, the United States and the United Kingdom. The authors described the differences in gender, age, country, history of mental health treatment, type of sport, and level of contact in sport played by participants, but do not once mention the racial composition of the sample. Similarly, Ong and Hardwood (2018) note the importance of culture upon attitudes toward help seeking in athletes by distinguishing between Western and Eastern ideologies and views towards counseling. The sample in this study was divided by level of contact in sport played and cultural background; however, participant selection included athletes of White (British) or Asian (Chinese/Singaporean) descent, while African American or Hispanic/Latino athletes were not included. The results indicated that White participants from Western cultures exhibited lower levels of stigma and greater personal openness than Asian participants from Eastern cultures. The results of this study again reflected limited generalizability due to lack of diversity among the participants, specific to people of color. While the current study was limited as participants

included two groups, White and People of Color, it included a wide range of racial backgrounds, and included race as a significant variable affecting help-seeking attitudes. Continuing to understand if there are differences among different racial groups related to help seeking, and exploring possible reasons that differences may exist were important facets of this study. While there is a limitation in previous findings on specifically understanding why retired college athletes of color may have lower levels of help-seeking, empirical studies have suggested factors such as lack of trust, stigma, and cultural values that may account for why people of color in general, may be resistant to mental health counseling.

Studies have found that men of color are significantly less likely than both White men and women of color to receive mental health treatment, and cite higher levels of susceptibility to the shame and stigma associated with therapy as potential reasons (Andrews et al. , 2001; Gary, 2005; Latalova, 2014; Vogel et al., 2011). It has been further documented that a lack of trust in White health care providers, and the health care system in general, as possible explanations for why minority individuals demonstrate increased negative attitudes toward counseling services (Duncan, 2003; Odeja & Bergstresser, 2008; Watson & Hunter, 2015). Given that male athletes, collision sport athletes, and men high in masculinity have been cited as being resistant to mental health services, with increased susceptibility to stigma and shame, the influence of race may be an additional risk factor contributing to negative views of counseling in this already resistant population (Heird & Steinfeldt, 2013; Martin et al., 2004; Ong & Harwood, 2018; Perna et al., 1999).

Factors of stigma and shame have also been identified as major proponents that may deter people of color from seeking mental health treatment. A study conducted by Nam et al. (2010) indicated that White Americans were more likely to have positive attitudes towards seeking help than Asian Americans, citing a fear of shaming the family as a significant factor that deterred

this population from seeking psychological assistance. Individuals of Asian descent typically adhere to the collectivistic, traditional, Eastern viewpoint, which focuses upon family values and traditions more than individual struggles (Nam et al., 2010). This collectivistic mentality may influence and guide individuals of Asian descent to avoid seeking personal help in favor of protecting family privacy, and guarding against potential judgment from outsiders (Gong et al., 2003; Nam et al., 2010; Wynaden et al., 2005). A study conducted by Sheu and Sedlacek (2004) identified Asian Americans as having the lowest admission rate to inpatient psychiatric services in the United States, noting that it is not uncommon for this population to be unwilling to use mental health services of any type. Asian culture is not alone in adhering to a collectivistic mentality that devalues seeking mental health counseling. Middle Eastern Arabic cultures, along with Orthodox Jewish cultures, also fear stigmatization and familial shame associated with mental health treatment (Soheilian & Inman 2009; Schectnam et al., 2010). Additionally, stigma has been identified as a major deterrent influencing attitudes toward help seeking in Black and Latino cultures (Corrigan and Watson, 2007; Avila & Avila, 1995). Studies have shown that African American men exhibit higher levels of self-stigma, and less positive attitudes towards mental health treatment (Latalova et al., 2014; Vogel et al., 2011). Again, while the research is inconsistent and has produced mixed results overall, stigma has been one factor consistently identified throughout the literature as a contributor to lower levels of help seeking in African American culture. The extant literature also highlights a desire for self-sufficiency and independence found in African Americans, referencing cultural elements such as the “Strong Black Woman,” and high levels of masculinity in African American men, as contributing to negative views on help seeking (Vogel et al., 2011; Watson & Hunter, 2015, p. 604). Similar results have also been found in Hispanic cultures. Research suggests that Latino men greatly value traits of self-sufficiency, stoicism, and mental fortitude, as evidenced by traditional

machismo cultural expectations (Avila & Avila, 1995; Odeja & Bergstresser, 2008). Although stigma and shame have been cited as significant barriers to seeking help among minority groups, there are also additional factors deterring people of color, and athletes of color from seeking psychological help.

While high cultural regard for collectivism, resilience and self-sufficiency deters members of minority communities from seeking help from a mental health professional, a higher level of mistrust in the mental health field may additionally contribute to less favorable views of counseling in this population (Goldston et al., 2008; Sheu & Sedlacek, 2004; Stickney et al., 2012). Trust has been identified throughout the literature as a significant component of seeking professional help, with mistrust in the medical provider being a major barrier to patient comfort, attendance of follow-up appointments, and adherence to treatment recommendations (Ojeda & Bergstresser, 2008; Thom et al., 2002). In terms of reluctance towards seeking medical and psychological services, people of color have identified a history of racism in the United States as a significance source of mistrust (Sheu & Sedlacek, 2004; Oieda and Berastresser. 2008). This may be attributed to a number of factors involving both stigmatization and maltreatment of people of color by the medical profession. Research has suggested that people of color are “more likely to receive more complicated/severe mental diagnosis, as well as less favorable mental health prognoses” than a white person (Kessler & Neighbors, 1986; Stickney et al., 2012, p. 246; Ulbrich et al., 1989). Studies have also found that students of color in the United States tend to underutilize mental health services because of societal issues involving immigration, racism, and perceived incompatibility between Western psychotherapy and minority cultures (Sheu & Sedlacek, 2004). Financial struggles, lack of transportation, and high rates of unemployment have been additionally cited as limiting factors to help-seeking behaviors among individuals of color (Watson & Hunter, 2015).

Male athletes of color have exhibited similar feelings of mistrust towards mental health counselors, and have demonstrated higher levels of comfort with mental health professionals of the same race (Heird & Steinfeldt, 2013; Martin, 2005; Ong & Harwood, 2018). Heird & Steinfeldt (2013) note that recently retired black, male, college athletes are susceptible to stigmatization at higher levels than black athletes, who are just entering or well established in their active collegiate careers. The authors suggest that this population of athletes who do not become professionals in their sport may internalize a societal stereotype that depicts sports as a black male athlete's only vehicle to success. Furthermore, Steinfeldt, Reed, and Steinfeldt (2010) discovered that African American college football players "who were near the end of their athletic career reported lower levels of public regard when compared with their teammates who were at the beginning of their college career" (p. 150). This finding suggests that male athletes of color who retire without becoming professional athletes may be more susceptible to negative stereotypes from non-athletes, and may experience higher levels of distrust when seeking mental health counseling from a non-athlete provider. Although these studies continue to present possible explanations for why this population is more resistant to seeking professional help, the research literature remains limited. Factors that may deter people of color from seeking psychological help warrant further empirical investigation, particularly in high-risk populations such as retired male athletes of color.

Conclusion

There are clearly numerous mental health difficulties affecting retired male college athletes, yet research has shown that approximately 90% of recently retired athletes do not seek psychological help during or shortly after career termination (Gliga et al., 2018). The literature has provided evidence suggesting that attitudes towards help seeking in athletes are influenced by factors such as sports culture, stigma, type of sport, hegemonic masculinity, and race.

However, there is a definitive gap in the literature directly examining these variables in retired male college athletes. Studies that have explored help seeking in athletes have typically focused on child and adolescent athletes, active college athletes, and professional athletes; however, retired college athletes are a population that has largely been unexamined up until this point (Miller & Buttell, 2018; Park et al., 2013; Schuring et al., 2016; Simon & Docherty, 2013). Furthermore, the limited studies that have exclusively focused on retired college athletes, have not examined differences in mental health stigma between collision vs. non-collision sport athletes, various racial groups, or levels of masculinity among participants. This study filled multiple gaps in the literature by exclusively focusing on the most prominent risk factors affecting a very specific, at-risk subgroup of sports culture. Understanding how factors of masculinity, racial and cultural differences, and type of sport affect attitudes towards mental health treatment allow athletic and healthcare professionals alike to better identify which athletes are most at risk for developing a mental illness. Results provide higher levels of awareness, understanding, and normalization of psychological difficulties faced by male college athletes upon retirement, and promote reflective, proactive dialog about mental health services available to current student-athletes as well.

Chapter III

Methodology

This chapter describes the methodology of the current study. It will provide an outline of the study design, research participants and group categorizations, psychometric instruments, procedures of data collection and analysis, and statistical design. Finally, the chapter will conclude with a review of the research questions and hypotheses addressed by this study.

Study Design

This study used a cross-sectional research design to collect and analyze statistical data. The study examined the relationships between the independent variables of race and type of sport, controlling for level of masculinity, on the outcome variable of attitudes towards help seeking. This was a survey-based study, with participants recruited on Amazon's Mechanical Turk (MTURK), and psychometric instruments administered to participants through Qualtrics' web-based survey platform.

Participants

The aim of this study was to investigate attitudes towards help seeking in retired male college athletes. Therefore, the participants were men over the age of 18, who have played a varsity sport at the college level, and who have been retired from sport for at least three months. Retirement in this case means that athletes were not participating in competition or team practices as active members of a varsity roster. As described in Chapter I, the rationale for the three-month time period was based on studies of adjustment to retirement from college athletics, indicating that three months after retirement signifies an athlete's entrance into the "intrusion phase," of transition development (Wippert & Wippert, 2010). The intrusion phase appears to be the stage during which reality begins to set in for the athlete following the immediate distress after retirement, and prior to the athlete beginning to approach adjustment to life after sport.

Athletes typically continue to experience substantial levels of distress three months after retirement, which indicates that athletes in this phase are still at risk for psychological difficulties despite some passage of time since the onset of retirement (Wippert & Wippert, 2010).

Therefore, athletes who retired as recently as three months prior to participation in this study were included in the sample.

There were no limitations associated with the age of the retired athlete in this study, for a number of reasons, discussed in greater detail in Chapter I. Retired athletes of any age may be at risk for the development of a mental health disorder. Wippert and Wippert (2004) note that difficulties faced by younger retired athletes typically pertain to the immediate grief and loss of athletic identity affiliated with retirement at a young age, while older retired athletes are at risk for conditions such as osteoarthritis and CTE (Finkbeiner et al., 2016; Maroon et al., 2015; Schuring et al., 2016). Because these mental health conditions are pervasive throughout the life span of retired male college athletes, any athlete in this population over the age of 18 was included in this study.

Participant Groups

Attitudes toward help seeking were directly compared in this study based on the type of sport played by the athlete, and the athlete's race. The groups categorized by type of sport were labeled as "collision" and "non-collision," and the groups categorized by race were labeled as "White" and "People of Color" (POC), based on participant self-report as described below. No exclusion was made based on the subject's NCAA division of sport competition (Division I, II, or III), race, religion, sexual orientation, or place of residency in the United States.

Type of Sport Groups

Collision sports, as defined by Meehan et al. (2016) are "those during which routine, purposeful, body-to-body collisions occur as a legal and expected part of the game" (p.255).

Collisions and high impact physical contact in these sports are a goal and a requirement during competition. The collision group in this study consisted of retired male athletes who competed in football, ice hockey, wrestling, and lacrosse during their college career. Due to the consistency of these sports being labeled as the most violent, and exhibiting the highest level of physical contact, retired male collision sport athletes in this study participated in at least one of these four sports during their college careers. Boxing and rugby are also consistently categorized as collision sports; however, they are not team sports directly sanctioned as Division I, II, or III varsity sports within the National Collegiate Athletic Association (NCAA, 2019), and therefore these sports were not included.

Sports such as soccer and basketball involve a medium to high level of contact between players throughout the game; however, they do not meet criteria to be included as “collision sports” as defined by Meehan (2016), even though these collisions can cause injury. High impact collisions are not considered to be purposeful, strategic, or legal in these sports, and result in an ejection or suspension if enacted during competition. Because these sports have a level of contact that cannot be defined as “collision” and do not allow purposeful physical violence, athletes who participated in these sports during college were included in the non-collision group.

Non-collision sports are those in which purposeful body-to-body contact sporadically or never occurs as a recognized part of the game, and is not allowed in the rules of the sport. (Meehan et al., 2016). This group consisted of retired male athletes who competed in sports such as baseball, cross-country, swimming, water polo, bowling, rifle, rowing, fencing, skiing, golf, tennis, track, gymnastics, and volleyball during their college career (NCAA, 2019).

Racial Groups

Attitudes toward help seeking were compared between retired athletes of different racial groups. Participants were asked to identify their racial group as White/Caucasian, Black/African

American, Asian or Pacific Islander, Hispanic/Latino, Native American, or Other. Attitudes toward help seeking were then compared in groups labeled as “White” or “People of Color” (POC). The rationale for categorizing all other races besides “White” in the singular POC group was related to accessibility of participants based on NCAA (2018) demographic statistics. Statistics show that only 25% of college wrestlers, 23% of college hockey players, and 4% of college lacrosse players are male athletes of color in the NCAA. In order to ensure a sample size large enough to investigate the effects of race, all participants who identify with a race other than White/Caucasian were consolidated into the POC group. This was a limitation of the study, as there are clearly different cultural beliefs, ideologies, and customs in the POC group that may affect attitudes toward help seeking. However, due to the limited research investigating any effects of race upon help-seeking in retired male college athletes, this study still contributed to expansion in the extant research, as currently very few studies exist that investigate these specific factors that impact help-seeking among this population.

Instruments

Participants were administered a demographics questionnaire, followed by the Male Role Norms Inventory-Short Form (MRNI-SF) and the Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH). The demographics questionnaire (Appendix A) included questions asking participants to identify their age, race (White/Caucasian, Black/African American, Asian or Pacific Islander, Hispanic/Latino, Native American, or Other), division of NCAA competition, and length of time since their retirement from sport.

Male Role Norms Inventory–Short Form

The Male Role Norms Inventory-Short Form (Appendix B) developed by Levant, Hall and Rankin (2013), is a 21-item shortened and revised version of the original 57-item instrument, measuring traditional masculinity and adherence to traditional masculine role norms. This

measure uses a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) and was normed on undergraduate college students. The MRNI-SF has been proven to be a valid instrument used among a diverse group of participants varying widely in age, race, sexual orientation, SES, marital status and educational background. Levant et al. (2016) identify high levels of “convergent, discriminant, and concurrent validity of the MRNI-SF general and specific factors” (p. 540). There is also evidence of high internal consistency (Cronbach's alpha = .92 for male respondents, and .94 for female respondents) for this instrument. The MRNI-SF has seven subscales measuring beliefs about traditional masculinity. The subscales include traits of (a) restrictive emotionality, (b) self-reliance through mechanical skills, (c) negativity towards sexual minorities, (d) avoidance of femininity, (e) importance of sex, (f) toughness and g (dominance). The instrument includes items such as “When the going gets tough, men should get tough,” “A man should never admit when others hurt his feelings,” “Men should watch football games instead of soap operas,” and “It is important for a man to take risks, even if he might get hurt.” Higher scores on these items, and the MRNI-SF overall, indicate high levels of endorsement of traditional masculine ideology and role norms (Levant, Hall, & Rankin, 2013)

Attitudes Toward Seeking Professional Psychological Help-Short Form

The Attitudes Toward Seeking Professional Psychological Help Scale-Short Form (Appendix C) developed by Fischer and Farina (1995), is a 10-item shortened version of the original 29-item instrument. This measure uses a four-point Likert scale ranging from 0 (disagree) to 3 (agree), and has a high test-retest reliability (.80). This instrument was normed on traditional college age students and adult medical patients (Fischer & Farina, 1995). The internal consistency (Cronbach's alpha = .77) and correlation with the original instrument (.87) are also both high. The ATSPPH includes items such as “if I believed I was having a mental breakdown, my first inclination would be to get professional attention.” and “I might want to have

psychological counseling in the future." High scores on the instrument indicate higher intentions to seek psychological help in the future as well as higher frequency of recent counseling visits.

Procedures

This study was first presented to the Seton Hall Institutional Review Board for overall approval and permission to begin data collection. After approved, research participants were recruited using Amazon's Mechanical Turk (MTURK), which is an online platform for crowd-sourced task completion. Mechanical Turk is a web resource that allows researchers to pay individuals for participating in various survey studies. These fees help to cover small monetary payments (e.g. this study paid the user \$1.00 for completion of the survey) that Amazon.com provides participants via their Mechanical Turk website (Berinskiv, Huber, and Lenz. 2012). As per the Mechanical Turk website, this service charges the researcher one bulk advertising fee and then manages the distribution of small monetary payments to the participants, who are able to receive small payments while retaining their anonymity to the researchers. Mechanical Turk operates by posting a "job listing" that describes the Human Intelligence Task (HIT) able to be completed by a Mechanical Turk Worker.

Berinskiv et al. (2012) conducted a study examining the validity and reliability of Mechanical Turk as a research participant recruitment tool, in comparison to alterative convenience sample methodologies used in past political science studies. The study concluded that Mechanical Turk is actually more representative of the U.S population than other convenience sample recruiting techniques, and is a significantly valid, reliable and inexpensive research recruitment tool. The researcher is able to limit the number of times an MTURK worker can complete the survey, as well as specify the country of residence necessary to complete the survey. The researcher can also set "approval rating" requirements for research participants, which is an additional precautionary measure used to increase likelihood of response validity and

reliability. This rating is based on workers' percentage of prior HIT'S that have been adequately submitted and accepted by researchers on MTURK (Berinsky, Huber, and Lenz, 2012). Further, Peer et al. (2014) found that 95% HIT approval rating from the participant, as well as a minimum of at least 500 prior HITs completed, significantly improves likelihood of receiving valid and reliable survey responses. Therefore, participants in this study had a HIT approval rate of 95% or higher, and had completed at least 500 HIT's prior to participating. This was done automatically through the MTURK website, which was programmed to automatically pre-screen potential participants to exclude anyone living outside of the United States, under the age of 18, with a HIT approval rate of less than 95%, and with less than 500 HIT's completed. MTURK's keyword function was also utilized in this study. This function allowed potential participants to enter keywords on the MTURK portal to identify tasks that are most relevant, convenient, and interesting to them. Keywords associated with this study were "retired," "college," "university," "male athletes," "masculinity," "sports," "collision sports," "contact sports," "football," "wrestling," "hockey and "lacrosse." Participants who selected to participate in this study were then presented with the letter of solicitation.

The letter of solicitation (Appendix D) included background information on the researcher, identified the survey instruments included in the study, provided an explanation of the financial incentives via Mechanical Turk, described estimated length of time to complete the study, and highlighted aspects of confidentiality associated with the study. Because payment from Mechanical Turk was linked to the user's Amazon account, a statement was included in the letter of solicitation denoting that there was not a guarantee of full anonymity while participating in this study. However, the letter of solicitation also emphasized that the information gathered in this study would not identify participants in any way to the researchers. Researchers were only shown Mechanical Turk users' assigned worker ID numbers. These numbers were not shared

with anyone. They were removed from the results of the survey, and were not linked to the survey data. The survey data was not accessed using Qualtrics, which is a web-based, third-party survey software with known policies for data security and anonymity. Participants entered Qualtrics via anonymous link, where they read the letter of solicitation and were directed to either voluntarily proceed with participating in the study or opt out. If they agreed to proceed, participants were subsequently screened for inclusion criteria.

Inclusion criteria was presented as direct questions to the participants, asking information about age, sex, participation status in college sport (retired or active), and if they had been retired for at least three months from college athletics. Participants who were not 18-years-old, did not identify as retired male college athletes, had not been retired for at least three months from sport were screened out from this study with a message of thanks for their interest in participating. If participants met inclusion criteria, they were administered a demographic questionnaire asking their age, race, division of NCAA competition (Division I, II, or III), length of time since their retirement, and if they had ever sustained a head injury during sport. Subjects then completed a survey that included the Male Role Norms Inventory-Short Form (Levant, Hall & Rankin, 2013), and the Attitudes Towards Seeking Professional Psychological Help-Short Form (Fischer & Farina, 1995). Participants were able to complete the survey on an electronic device with internet access such as a computer, phone, or tablet, at their own convenience. Participants were assigned a numeric identification code for their participation and no other identifying information was collected. Data from participants' responses was then downloaded to IBM's Statistical Package for Social Sciences (SPSS version 25) statistical software, and analyzed at Seton Hall University. At the study's conclusion, the data was retrieved from Qualtrics' server and placed on a USB memory key, which was kept locked in a secure physical site, accessible only by the primary researcher. The collected data was input and analyzed using SPSS.

Statistical Design

The total number of participants needed in the sample to ensure valid statistical results was determined via a power analysis. Statistical power, according to Brownlee (2018), refers to “the probability of a hypothesis test finding an effect if there is an effect to be found. A power analysis can be used to estimate the minimum sample size required for an experiment, given a desired significance level, effect size, and statistical power” (p.1). Using the program G*Power 3.1.9.2 (Faul et al., 2009), an *a priori* power analysis was conducted to determine the minimum number of participants needed in order to attain meaningful statistical results. Results of the power analysis stated that in order to attain a medium effect ($f = .25$) for the four groups associated with this study (collision vs. non-collision athletes, White vs. POC athletes) a minimum sample size of 179 participants is needed.

An analysis of covariance (ANCOVA) was performed to measure the differences in attitudes toward help seeking across race and sport type, controlling for the covariate masculinity. According to Green and Salkind (2017), an ANCOVA “evaluates the null hypothesis that population means on the dependent variable are equal across levels of a factor, adjusting for differences on the covariate, or, more simply stated, the population adjusted means are equal across groups” (p. 188). A covariate is representative of individual differences between groups that occur separately from the dependent variables (Green & Salkind, 2017). It controls for confounding variables that are present or innate in participants before the experimental variables are introduced. A covariate also increases statistical power by eliminating confounding variables (Green & Salkind, 2017). As it pertains to this study, evidence suggested that men in collision sports were higher in masculinity; however, masculinity is a continuous response variable that differs among men. Therefore, an ANCOVA used masculinity as a covariate in order to control for the effects it had on participant’s attitudes. This allowed the research to be

specifically focused on the direct effects of the independent variables, race and type of sport. The initial priority before conducting the ANCOVA was confirming the homogeneity of slopes assumption, which supposes that the slopes relating the covariate to the dependent variable are the same for all groups (Green & Salkind, 2017). After the results supported the homogeneity-of-slopes assumption, an ANCOVA was performed using SPSS.

Research Questions

As noted in Chapter I, the following were the research questions addressed by this study:

1. Do participants who score higher in masculinity and traditional male role norms have less positive attitudes toward help seeking?
2. After controlling for masculinity, do retired male athletes in non-collision sports (baseball, swimming, golf, track, tennis, and volleyball) have more positive attitudes toward seeking help than those who competed in collision sports (football, ice hockey, wrestling, and lacrosse)?
3. After controlling for masculinity, do White retired male college athletes have more positive attitudes towards seeking help than retired male college athletes of color?

Hypotheses

1. Participants who score higher in masculinity and traditional male role norms will have less positive attitudes toward help seeking.
2. After controlling for masculinity, retired male athletes in non-collision sports will have more positive attitudes toward seeking help than those who competed in collision sports.
3. After controlling for masculinity, White retired male college athletes will have more positive attitudes towards seeking help than retired male college athletes of color.

Chapter IV

Results

The primary purpose of this study was to examine attitudes towards help seeking in retired male college athletes, and to investigate any differences in help seeking between athletes of differing sports, racial groups, and levels of masculinity. This study focused on groups categorized by type of sport, labeled “collision” and “non-collision,” and groups categorized by race, labeled “White” and “People of Color” (POC). Additional analyses were also conducted to measure differences in help seeking between and within specific racial groups categorized as “White,” “Black,” “Asian,” “Latino,” “Native American,” and “Other.” Athletes completed surveys that included a demographics questionnaire and psychometric instruments examining levels of masculinity and attitudes toward help seeking. The goal of this study was to understand the relationship between an athlete’s sport and race on attitudes toward help seeking, after accounting for the covariate of masculinity. This chapter will focus on the statistical design of the study, the descriptive statistics of the sample, and findings from each of the analyses in relation to the original research questions and hypotheses.

Statement of Design

An analysis of covariance (ANCOVA) was used for this study. The independent variables of this study were race and type of sport. The dependent variable was attitudes toward help seeking, which was measured by the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form (Fischer & Farina, 1995). The covariate of this study was masculinity, which was measured by the Male Role Norms Inventory-Short Form (Levant, Hall & Rankin, 2013). This was a survey-based study, with participants recruited on Amazon’s Mechanical Turk (MTURK), and psychometric instruments administered to participants through Qualtrics' web-based survey platform.

Sample Description

An *a priori* power analysis indicated that a minimum sample size of 179 participants was required to adequately power this study. A total of 400 participants were recruited for this study in order to ensure a wide range of diversity among participants. After excluding 46 ineligible participants who did not meet study criteria or did not complete all instruments, a final total of 354 participants were recruited for the present study. All participants had been retired from college athletics for at least three months at the time of this study. Participants were between the ages of 18 and 66 ($M = 34.40$, $SD = 9.72$). A summary of participant demographic information is displayed below, in Table 1. A total of 281 non-collision athletes participated in this study, comprising 79.4% of the sample population, while a total of 73 Collision sport athletes participated, comprising 20.6% of the sample. Collision athletes competed in football, wrestling, ice hockey, or lacrosse during their college career, while non-collision athletes participated in any other NCAA sanctioned sport. Broadly defined racial groups were labeled as “White” or “People of Color” (POC). The group of White participants consisted of 234 (66.1%) athletes, and the POC group consisted of 120 (33.9%) athletes, of which 78 (22.0%) self-identified as Black, 19 (5.3%) as Asian, 14 (3.9%) as Latino, and 9 (2.5%) Native American. There was a wide range of sports played by non-collision athletes in this sample, with the most prevalent being basketball ($N = 89$) and soccer ($N = 43$). These sports accounted for 25% and 12% of the Non-collision group. Football ($N = 57$) was by far the most common sport among collision sport athletes, accounting for 78% of the Collision group. Additionally, participants were also asked about their history of concussions during college athletics. A majority of athletes ($N=216$, 61.2%) reported experiencing at least one concussion during their college career, while 137 (38.7 %) denied ever sustaining a concussion. One participant declined to answer. Results suggest however, that

concussions were not a significant predictor of either attitudes towards help seeking or masculinity in this sample population.

Table 1

Demographic Characteristics of the Sample (N = 354)

	Label	N	%
Type of Sport	Non-collision	281	79
	Collision	73	20
Race	White	234	66
	POC	120	34
Racial Groups	White	234	66
	Black	78	22
	Asian	19	5
	Latino	14	4
	Native American	9	3
Sport	Baseball	30	9
	Basketball	89	25
	Golf	7	2
	Soccer	43	12
	Tennis	32	9
	Track	14	4
	Volleyball	26	7
	Gymnastics	4	1
	Water Polo	5	1
	Bowling	8	2
	Rowing	6	2
	Rifle	5	1
	Skiing	1	1
	Cross-Country	4	1
	Swimming	7	2
	Lacrosse	3	1
	Ice Hockey	10	3
Wrestling	3	1	
Football	57	16	

Preliminary Analysis

Prior to conducting the main analyses, all variables were evaluated to ensure that they met statistical assumptions of normality. Before conducting the ANCOVA, it was also necessary to ensure that the homogeneity-of-slopes assumption was not violated; analysis indicated that it was not.

Descriptive Statistics

Mean scores on the Attitudes Toward Seeking Professional Psychology Help (ATSPPH) by type of sport and racial group are displayed in Tables 2 and 3, below.

Table 2

Descriptive Statistics: Type of Sport

Type of Sport	Race	<i>M</i>	<i>SD</i>	N
Non-collision	White	15.43	4.70	188
	POC	16.82	4.30	93
	Total	15.89	4.60	281
Collision	White	15.22	6.44	46
	POC	15.03	4.01	27
	Total	15.15	5.63	73
Total	White	15.39	5.07	234
	POC	16.42	4.29	120
	Total	15.73	4.84	354

Table 3*Descriptive Statistics: Racial Groups*

Racial Group	Type of Sport	<i>M</i>	<i>SD</i>	N
White	Non-collision	15.43	4.70	188
	Collision	15.22	6.44	46
	Total	15.38	5.07	234
Black	Non-collision	15.22	3.80	58
	Collision	14.70	3.37	20
	Total	16.41	3.81	78
Asian	Non-collision	15.88	4.79	16
	Collision	13.67	4.16	3
	Total	15.52	4.66	19
Latino	Non-collision	17.37	6.52	11
	Collision	18.67	7.77	3
	Total	17.64	6.50	14
Native American	Non-collision	16.63	3.62	8
	Collision	15.00		1
	Total	15.73	3.43	9
Total	Non-collision	15.89	4.61	281
	Collision	15.15	5.63	73
	Total	15.73	4.84	354

Table 4*Correlations*

		Attitudes	Race	Type of Sport	Masculinity
Attitudes	Pearson Correlation	1	.101	-.062	-.302**
	Sig. (2-tailed)		.057	.248	.000
	N	354	354	354	354
Race	Pearson Correlation	.101	1	.033	.085
	Sig. (2-tailed)	.057		.533	.111
	N	354	354	354	354
Type of Sport	Pearson Correlation	-.062	.033	1	.029
	Sig. (2-tailed)	.248	.533		.590
	N	354	354	354	354
Masculinity	Pearson Correlation	-.302**	.085	.029	1
	Sig. (2-tailed)	.000	.111	.590	
	N	354	354	354	354

** . Correlation is significant at the 0.01 level (2-tailed).

Primary Analyses

The estimated marginal means, as depicted below, are calculated as part of the ANCOVA. The resulting means are found after controlling for the covariate of masculinity. This essentially means that the effect of masculinity has been statistically removed from the above scores, and enables the new adjusted means to provide clearer illustration of the dependent variable. The adjusted means for each type of sport and racial group are displayed in Tables 5 and 6. Results of the ANCOVA, as displayed in Table 7, indicate non-significant results proposing that type of sport and race would have an effect on attitudes toward help seeking. Despite estimated marginal means suggesting higher scores for nearly all non-collision groups, type of sport did not have a significant effect on attitudes toward help seeking after controlling

for masculinity, $F(1, 349) = 6.45, p = 0.22$. Additionally, the race of the participant also did not have a significant effect on attitudes toward help seeking. $F(1, 349) = 3.24, p = .07$. Finally, there was not a significant interaction $F(1, 349) = 0.24, p = .62$ between type of sport and race on attitudes toward help seeking in this population. Results of the ANCOVA, additional exploratory analyses, and their relationship to the original research hypotheses will be further discussed in the next section of this chapter.

Table 5

Estimated Marginal Means: Type of Sport

Type of Sport	Race	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Non Collision	White	15.384 ^a	.334	14.726	16.042
	POC	16.836 ^a	.475	15.901	17.771
Collision	White	14.928 ^a	.678	13.595	16.261
	POC	15.757 ^a	.890	14.006	17.509

a. Covariates appearing in the model are evaluated at the following values:
MRNIScaleScore = 4.3878.

Table 6*Estimated Marginal Means: Racial Group*

Racial Group	Type of Sport	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
White	Non-collision	15.380 ^a	.335	14.722	16.039
	Collision	14.906 ^a	.679	13.570	16.241
Black	Non-collision	17.323 ^a	.605	16.133	18.513
	Collision	16.092 ^a	1.051	14.025	18.159
Asian	Non-collision	15.015 ^a	1.156	12.741	17.289
	Collision	12.667 ^a	2.656	7.444	17.891
Latino	Non-collision	16.264 ^a	1.396	13.519	19.009
	Collision	16.751 ^a	2.669	11.502	22.000
Native American	Non-collision	17.753 ^a	1.633	14.540	20.966
	Collision	16.843 ^a	4.601	7.794	25.893

a. Covariates appearing in the model are evaluated at the following values:
MRNIScaleScore = 4.3878.

Table 7*Analysis of Covariance for Attitudes Toward Help Seeking*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	919.417 ^a	4	229.854	10.933	.000	.111
Intercept	11693.186	1	11693.186	556.16	.000	.614
Masculinity	767.016	1	767.016	36.482	.000	.095
Type of Sport	31.352	1	31.352	1.491	.223	.004
Race	68.211	1	68.211	3.244	.073	.009
Type of Sport * Race	5.102	1	5.102	.243	.623	.001
Error	7337.623	349	21.025			
Total	95898.000	354				
Corrected Total	8257.040	353				

a. R Squared = .111 (Adjusted R Squared = .101)

b. Computed using alpha = .05

Hypothesis Testing

Hypothesis 1. The first hypothesis of this study predicted that participants who score higher in masculinity would have less positive attitudes toward help seeking. Results of the ANCOVA indicate that the covariate of masculinity, $F(1, 349) = 36.48, p < .01$, actually did have a significant effect on attitudes toward help seeking. The relationship between the covariate and dependent variable was relatively weak however, ($\eta^2 = .095$), indicating that masculinity accounted for approximately 9.5% of the variance associated with attitudes toward help seeking in this sample. This is also supported by the bivariate correlations pictured in table 4, which were conducted to assess the strength of the relationships between each variable. There was a significant negative correlation found between masculinity and attitudes towards help seeking,

$r(352) = -.30, p < .01$, suggesting that as levels of masculinity increased, attitudes towards help seeking decreased. This is consistent with the original hypothesis suggesting that participants who score higher in masculinity will have less positive attitudes toward help seeking.

Hypothesis 2. The second hypothesis of this study predicted that retired male athletes in non-collision sports would have more positive attitudes toward seeking help than those who competed in collision sports. When assessing the mean differences between non-collision and collision athletes, without incorporating race in the analysis, non-collision athletes ($M = 15.89, SD = 4.60$) appeared to show slightly more positive attitudes towards help seeking than collision athletes ($M = 15.15, SD = 5.63$). Despite this difference however, results of the ANCOVA revealed that the difference between groups is not large enough to be considered statistically significant, thus rendering type of sport a non-significant factor overall after controlling for masculinity, and not supporting hypothesis 2.

Hypothesis 3: The third hypothesis of this study stated that White retired male college athletes would have more positive attitudes towards seeking help than retired male college athletes of color. When assessing the adjusted marginal means between White participants and participants of color, White athletes ($M = 15.16, SE = 0.38$) actually exhibited less positive attitudes towards help seeking than athletes of color ($M = 16.30, SE = 0.51$). The results of this analysis, which was conducted without incorporating type of sport as a factor, are displayed in table 8. Adjusted scores on the ATSPPH, after controlling for the covariate of masculinity, illustrated that both non-collision and collision White athletes actually scored very low in attitudes toward help seeking, scoring higher than only participants of Asian descent. Despite the apparent differences in adjusted scores, the results of the ANCOVA once again highlighted the lack of a statistically significant effect of race on attitudes towards help seeking, after controlling for masculinity. These results contradict the original beliefs postulated in Hypothesis 2,

theorizing that White athletes would have significantly higher positive attitudes toward seeking help than participants of color.

Table 8

Estimated Marginal Means: Race

Race	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
White	15.156 ^a	.378	14.412	15.899
POC	16.297 ^a	.505	15.304	17.290

a. Covariates appearing in the model are evaluated at the following values:
MRNIScaleScore = 4.3878.

Summary

The purpose of this chapter was to present and summarize the statistical results depicting the relationship between sport and race on a retired athlete's attitudes toward help seeking, after accounting for masculinity. An analysis of covariance (ANCOVA) was performed to measure the impact of sport and race on the dependent variable, after controlling for the covariate. While estimated marginal means largely showed higher scores in attitudes toward help seeking in non-collision athletes and athletes of color, the ANCOVA results indicated that neither sport nor race had a significant effect on the dependent variable.

The first research question and hypothesis of this study posited that participants who scored higher in masculinity would have less positive attitudes toward help seeking. Results of the ANCOVA showed that masculinity actually did have a significant effect on attitudes toward help seeking in this group. These results support the original research hypothesis, indicating that masculinity actually had a stronger effect on help seeking than race or type of sport.

The next hypothesis believed that non-collision athletes would exhibit significantly higher levels of attitudes toward help seeking than collision athletes, after controlling for

masculinity. However, results of the ANCOVA revealed a non-significant relationship overall between sport and attitudes toward help seeking, thus failing to support this hypothesis.

Finally, the last hypothesis proposed that White athletes would exhibit significantly higher levels of attitudes toward help seeking than athletes of color, after controlling for masculinity. The ANCOVA results, however, again showed a non-significant relationship between race and attitudes toward help seeking. The next chapter will focus on exploring various possibilities and explanations for the results of this study, and review how these findings can be expanded upon in future research studies involving athletes

Chapter V

Discussion

The present study examined attitudes towards help seeking in retired male college athletes. Differences in help seeking between athletes of various sports, racial groups, and levels of masculinity were assessed. Through examining these factors, the study aimed to gather evidence to increase awareness of both mental illness and maladaptive help seeking behaviors in this group. Additional goals of the study involved assisting in clinical work by providing mental health professionals with information about etiology, risk, and psychological patterns of clients in the athletic community. This chapter will review and interpret the statistical results in relation to these goals, discuss the limitations of the study, explore the clinical implications of the results, and identify recommended areas of future research.

Interpretation of Findings

The first research question asked if participants who score higher in masculinity would have less positive attitudes toward help seeking than those who score lower in masculinity. Results of the ANCOVA showed that masculinity did in fact have a significant effect on attitudes toward help seeking in this group, with a significant negative correlation between the variables of masculinity and attitudes towards help seeking. These findings suggest that as levels of masculinity increased within participants, attitudes towards help seeking decreased. This is an important finding for multiple reasons. First, it further solidifies previous research findings, supplementing extant evidence showing men as less open to seeking psychological help. Next, the results illustrate the impact that masculinity and conformity to traditional male gender norms such as concealing emotion, avoiding vulnerability, and being totally self-sufficient can have on help seeking attitudes. Additionally, these findings confirm that masculinity may have altered results examining help seeking in previous studies, and needed to be controlled as a covariate in

order to better understand the effects of sport and race on help seeking in this population. Masculine ideologies are an extremely prominent element of sports culture in general, but are especially pervasive among collision sports such as football, wrestling, hockey and lacrosse. As a result, these athletes in particular may be at risk of having even less favorable views toward seeking psychological help.

The second research question in this study asked if retired male athletes in non-collision sports (e.g. baseball, swimming, golf, track, tennis, and volleyball) would have more positive attitudes toward seeking help than those who competed in collision sports, (football, ice hockey, wrestling, and lacrosse) after controlling for masculinity. Results of the ANCOVA revealed a non-significant relationship overall between type of sport and attitudes toward help seeking. This finding failed to support the original hypothesis ascertaining that collision sport athletes would have significantly more negative attitudes toward help seeking, and is not consistent with results from previous studies. Non-collision athletes did exhibit a slightly higher mean score ($M = 15.89$) than collision athletes ($M = 15.15$) on the Attitudes Toward Help Seeking Scale. However, results of the ANCOVA showed differences between these groups is not large enough to be considered statistically significant, after controlling for masculinity. This finding revealed that type of sport is a non-significant factor in predicting attitudes toward help seeking in this sample population, and fails to support Hypothesis 2.

There are a multitude of possible explanations as to why Hypothesis 2 was not supported, and why type of sport was not a significant factor in predicting attitudes toward help seeking. In the Non-collision group, the two most predominant sports played by participants were basketball ($N = 89$) and soccer ($N = 43$). These two sports, which have been defined throughout the extant literature as “contact sports” in which “athletes routinely make contact with each other or inanimate objects, but usually with less force than in “collision sports” such as rugby and

American football,” comprised 37% of the total number of participants in the Non-collision group (Liang et al., 2019, p. 1). While basketball and soccer do allow and include a certain level of bodily contact and collision risk throughout game play, they did not meet criteria to be considered “collision” sports; which are defined by Meehan (2016) as sports in which “purposeful, body-to-body collisions occur as an intentional goal, and a legal and expected part of the game” (p. 255). Because these sports did not meet criteria to be included in the Collision group consisting of football, wrestling, hockey, and lacrosse, they were categorized as part of the Non-collision group, for the purposes of this study. The level of contact included in basketball and soccer however, is substantially higher than non-collision sports such as golf, tennis, or cross-country, in which no purposeful body-to-body contact is made whatsoever throughout the course of the game. The fact that two of the more contact-heavy sports in the 19-sport Non-collision group comprised 37% of the group population, suggests that findings may not have been representative of the non-collision athlete population. There was also a significantly wide range of sports (n = 19) included in the non-collision group. While this is advantageous in terms of inclusivity and diversity, it may have also provided a less accurate representation of the difference between collision sport athletes and non-collision sport athletes’ views toward seeking help. The wide range of contact, game strategy, physical exertion and aggression spanning across 19 different non-collision sports, may have contributed to a smaller difference in attitudes toward help seeking between these two groups, and ultimately the rejection of the second hypothesis.

There has also been a recent emphasis placed on the importance of mental health and an increased advocacy for therapy over the past few years, in sports culture. During the past five years, famous male athletes from a wide range of both collision and non-collision sports have become much more open and outspoken about their struggles with mental illness. For example, Olympic swimmer Michael Phelps, NBA players Demar Derozan, Kevin Love, and Kyrie Irving,

baseball players Joey Votto, Zack Greinke and golfer Andrew Jensen have all been advocates for seeking psychological help, after disclosing details about their own struggles with mental illness. This is a major breakthrough in sports culture, as open discussions about anxiety, depression, suicide, and mental illness in general have long been avoided in the athletic community. In addition to these non-collision athletes recently disclosing their battles with mental health, perhaps an even more unprecedented dialog about mental illness has begun among many collision athletes. For example, current and retired football players such as Brandon Marshall, Aldon Smith, Terry Bradshaw, Chris Borland, and Andrew Luck have all openly discussed the importance of seeking mental health treatment, and the difficulties of isolation, fear, and uncertainty associated with mental illness. The NFL has also implemented multiple rule changes and equipment adaptations over the past decade with the hope of decreasing head injuries and concussions that can lead to long-term mental health difficulties. Other collision sport athletes such as NHL players Dan Carcillo and Tyler Motte, professional wrestler Dwayne “The Rock” Johnson, and former boxers Mike Tyson and Oscar De La Hoya have all spoken publicly about the difficulties of mental illness. These men, all participating in hyper-aggressive, ultra-masculine, collision sports, all decided to express traits of vulnerability and empathy by disclosing their difficulties with mental illness. They modelled the importance of directly addressing the reality of mental illness and acceptance of seeking psychological help. These athletes openly discussing mental health struggles may have normalized help seeking among the sports community, and ultimately may have shrunk the differences between collision athletes and non-collision athletes in openly seeking psychological help. Thus, the finding of the present study that did not support Hypothesis 2 may be a reflection of the increased openness and normalization of seeking mental health treatment across sports culture over the past few years.

The final research question asked if White retired male college athletes would have more

positive attitudes towards help seeking than retired male college athletes of color, after controlling for masculinity. The ANCOVA results, however, showed a non-significant relationship between race and attitudes toward help seeking, after controlling for masculinity. White athletes ($M = 15.16, SE = 0.38$) actually exhibited less positive attitudes towards help seeking than did athletes of color ($M = 16.30, SE = 0.51$) in this sample. White athletes in both the collision and non-collision group only had more positive attitudes toward help seeking than one other racial group throughout this study; athletes of Asian descent. These results are contradictory to the original belief stated in Hypothesis 3, that retired White athletes would have the most positive attitudes towards help seeking.

Although race was not a significant factor in predicting attitudes toward help seeking, it is possible that the results were impacted by the demographics of this specific sample. There was a substantial disparity in the number of White participants and participants of color in this study. White participants ($N = 234$) comprised 66% of the total population in this sample, while participants of color ($N = 120$) comprised 34% of the total population. The fact that White participants nearly doubled the number of participants of color suggests that there may be an inaccurate representation of the findings in the POC group, as the sample size may have been too small to fully represent participants of color. There is also a within-group difference among the POC group that is not as pertinent within the White group. While there are cultural differences among White people and very different within-group beliefs, ideologies, and backgrounds, the level of privilege accompanying white skin and the macro-scale societal experiences of White people is relatively stable and uniform. As a result, there were no specific cultural differentiations made in this group, as “White” was the only racial category selected by participants in this group. Conversely, there were four different racial categories selected in the POC group, consisting of Black, Asian, Latino, and Native American, all of whom have

significantly different cultural backgrounds, societal experiences, and belief systems. While previous research has found that people of color tend to exhibit more negative attitudes toward help seeking than White people, within-group differences in the present sample could have altered the findings in this particular study. For example, Asian participants in this study exhibited the most negative attitudes toward help seeking in both collision and non-collision groups; however, there were only a total of five Asian participants in this entire study, which was not likely to be a representative sample of this population, nor did it provide sufficient power to reach statistical significance. Native American athletes exhibited the most positive attitudes toward help seeking in this study; however, there were only three Native American participants in this entire study, although this sample was too small to draw any clear conclusions. It is nearly impossible to extrapolate meaningful data from subgroups consisting of five and three people respectively, in comparison to groups such as White athletes ($N = 234$) and Black athletes ($N = 77$). As a result, it is reasonable to assume that there may have been a more accurate representation of help seeking attitudes among people of color had the quantity of participants in each subgroup been more consistent. Additionally, despite the relatively large number of Black athletes who participated in this study ($N = 77$), the number of White participants ($N = 234$) was over 300% greater. While it is absolutely encouraging that athletes of color exhibited higher levels of attitudes toward help seeking, and provided data that did not support Hypothesis 3, the unequal numbers of participants in each demographic still needs to be taken into account while assessing these findings.

Similar to collision sport athletes in Hypothesis 2, an additional contributor to the more positive attitudes towards help seeking among participants of color may be related to the zeitgeist of the past few years. Advocacy for mental health and social justice has been increasingly prominent throughout society over the past five years, and in sports culture in particular. Beyond

the general advocacy for mental health care noted above, athletes of color in both collision and non-collision sports have used their platforms of fame and visibility to advocate for social justice reform and equality for marginalized groups. These forms of advocacy have manifested in protests both on and off the court/field and have focused on the humanity, injustice, and societal needs of athletes and people of color in this country. Proactively speaking out about mental, physical, and societal needs for marginalized groups has been modelled by famous athletes of color such as Lebron James, Colin Kaepernick, Bubba Wallace, P.K Subban, Steph Curry, and Patrick Mahomes. These athletes, and society in general, focusing on the well-being and improvement of treatment for people of color in America, may have given more confidence and agency to participants of color in this study to be more open about help seeking. This increased confidence and openness may have contributed to findings that did not support Hypothesis 3, and suggest that further research needs to be conducted in the future to expand upon both the findings and limitations of this study.

Limitations

There are many limitations to recognize in the present study. First, the current study relied on self-report measures. While self-report measures are often utilized in psychological research, there is potential for misrepresentation and error to occur in survey-based responses. Participants also self-selected to participate in this study, and were not randomly selected. The only criteria necessary to participate was to be at least 18 years old, and a retired male college athlete for at least three months. Within this group, there may have been extraneous variables related to differing levels of motivation, athletic identity, athletic performance, general intelligence, exposure to previous mental health treatment, and mental/physical health of participants.

An additional limitation of this study relates to the recruitment method. Participants were gathered through MTurk, which has shown to be a valid and reliable recruitment platform for empirical research (Berinsky et al., 2012). Despite substantial evidence supporting the validity and reliability of MTurk, the anonymity and self-report responses of participants in this study prevented any way of actually confirming the previous student-athlete status or retirement period of the participants. Further, MTurk workers discovered the survey through keywords associated with this study such as “retired,” “college,” “university,” “male athletes,” “masculinity,” “sports,” “collision sports,” “contact sports,” “football,” “wrestling,” “hockey” and “lacrosse. There is a possibility that workers who chose to participate in this study were intrigued by these keywords or subjects, but were not college athletes themselves. Despite precautions taken to ensure the legitimacy of participants’ MTurk qualifications, it is also possible that some participants may have responded carelessly or erroneously due to the fact that the study was an online-based survey. Measures to reduce the possibility of these errors were also taken after data collection as well, as 46 ineligible participants who did not meet study criteria or did not complete all instruments were excluded from the analysis. However, the possible risk of additional illegitimate data not found or excluded still remains a limitation.

Finally, there are also limitations to this study related to the sample of research participants. Because all participants were retired male college athletes, the results may not generalize to athletes of other genders, ages, or levels of competition. There were also discrepancies in demographic factors such as the age, race, and sport played by participants. Because any athlete over the age of 18 was included in this study, it is possible that responses were altered based on the age or developmental stage of the participants. There was a wide range of age in this sample, as participants were between the ages of 18 and 66 ($M = 34.40$, $SD = 9.72$). As a result, responses of an 18-year-old participant retired for three months, may have differed

from a 66-year-old participant retired for 44 years, because of age-related developmental factors, rather than masculinity, race or type of sport. The results of this study also reflect limited generalizability due to lack of racial diversity among respondents. The participants consisted of 234 White people (66%) as opposed to 120 people of color (34%). The near doubling of White participants to participants of color reflects a somewhat biased representation of attitudes toward help seeking in this sample, based on race. As mentioned before, there was also a great disparity in the diversity within the POC group as well. The number of Black participants ($N = 78$) was nearly double the number of Asian, Latino and Native American participants combined ($N = 42$). This disparity within the POC group may have affected the results of the overall study, and needs to be acknowledged as a potential limitation.

Lastly, the diversity of sports played by participants in the Non-collision group, the lack of diversity of sports played by participants in the Collision group, and the inclusion of soccer and basketball in the non-collision group, are potential limitations of this study. As previously discussed, There were a total of 19 different sports played by participants in the non-collision group, as opposed to four in the collision group. The wide variety of sports could have affected the resulting attitudes toward help seeking among participants within the Non-collision group. Conversely, because 78% of participants in the collision group were football players ($N = 57$), this group may have been overly represented by one sport, rather than collision sport athletes in general. There was also a difference of 208 respondents between the Non-collision group ($N = 281$) and Collision group ($N = 73$). This unequal number of participants between both groups may have altered the results, and thus should also be recognized as a limitation of this study. Similarly, as previously mentioned, the inclusion of soccer and basketball in the non-collision group may have created an additional limitation. In order to ensure an adequate sample and diversify both groups focusing on type of sport and race, soccer and basketball needed to be

included in the Non-collision group, despite being categorized throughout the literature as “contact sports” (Liang et al., 2019). Assuming an adequate sample size, soccer and basketball being included as a third “type of sport” option or group in this study may have led to different results. Being able to compare collision sports of football, wrestling, hockey and lacrosse directly to the sports in which no contact occurs whatsoever may have illustrated a more stark difference in attitudes towards help seeking between groups, and provided more evidence to support the second hypothesis.

Clinical Implications

Despite the limitations, the findings of this study provide valuable information for clinicians about factors that may be detrimental to the mental health of both current and retired athletes, and some barriers they may face in seeking psychological help. Mainly, the most beneficial finding of this study relates to masculinity. The first hypothesis of this study, that participants scoring higher in masculinity would be less likely to seek psychological help, was supported. From a clinical perspective, this information is useful for many reasons. First, the results provide mental health practitioners, but perhaps more importantly, coaches, trainers, and additional support systems with an understanding of which players may be at most risk for not only developing mental health difficulties, but also neglecting to seek help when distressed. Research has shown that college athletes are more likely to confide in support systems that they personally trust such as coaches, trainers, and teammates (Ackerman, 2011; Watson & Kissinger, 2007; Worthy, 2017). Understanding masculinity risk factors, such as excessive hyper-aggression, restricted emotionality, bracketed morality, and a refusal to show weakness, can better prepare these support systems and equip them as the first line of defense for identifying and intervening when a player is in distress. Identifying which players demonstrate these traits can also allow support systems to inform this population about risk factors they may not even be

aware of, and begin the process of normalizing mental health difficulties and the benefits of counseling.

Earlier intervention and more proactive discussions about masculinity risk factors, mental health struggles of athletes, and the benefits of seeking help, can contribute to lowering stigma in the sports community. The results of this study illustrated that retired male college athletes are still susceptible to the influence of masculine societal expectations, which contribute to less positive attitudes toward help seeking. Given that there are a substantial amount of mental health difficulties associated with retirement from sport, this continued perception of being averse to help seeking puts this population at risk. From a clinical perspective, incorporating psychoeducation, normalization and validation of help seeking to players before they retire is a logical step towards mitigating the risk of developing mental illness in retirement. Previous research suggests that athletes perceive counseling and seeking psychological help to be less important than physical practices such as weight training, strength and conditioning, nutrition prioritization (Kliegman, 2017). The information collected from this study should inform coaches, trainers, therapists and mentors to begin educating athletes, particularly male athletes featuring traits of hegemonic masculinity, as early as possible about the need for mental health maintenance as well. If an emphasis on mental health is incorporated when these athletes begin college athletics as underclassmen, they will hopefully be less affected by stigma, and more open to the idea of seeking help upon retirement from sport. Similarly, when athletes do enter the stage of their career in which retirement is on the horizon, help with the transition from college athletics to retirement would be beneficial. Incorporating a “case management” perspective in which athletes are introduced and connected to community resources such as mental health services, student-athlete workshops, local competitive and recreation sports leagues and centers, and personal training programs, could help the athlete maintain a sense of athletic continuity and

a regimented workout schedule following the absence of sport. Providing athletes with psychoeducation on the impact of retirement on mental health is another important intervention that can help during transition to retirement. Previous research conducted by Ackerman (2011) discovered that providing athletes with a psycho-education workshop about the connectivity between mental illness and athletics actually increased attitudes toward help seeking in this group. Involving psychologists from college counseling centers to conduct workshops, particularly psychologists who are retired athletes themselves, may be beneficial to normalizing the transition process from sport to retirement for college athletes at the end of their careers.

Lastly, the results of this study suggest that there may be a more complex connection between race, and type of sport on attitudes toward help seeking than previous research has shown. Results illustrated a non-significant relationship between race and type of sport on attitudes toward help seeking in retired male athletes. While there are many limitations to this study that may have contributed to these findings, the results also could be related to a changing perception in sports culture related to help seeking. Many of the empirical studies on these topics were conducted prior to a recent advocacy effort by athletes, and athletes of color in particular, speaking out and advocating for mental health and social justice. If the recent advocacy efforts have in fact begun to shift attitudes toward help seeking among collision sport athletes and athletes of color, then perhaps masculinity may be the most pertinent risk factor to focus on as a deterrent of mental health treatment. Further research will be needed to continue deciphering which of these factors places athletes and retired male college athletes in particular at risk for mental illness, and specifically which traits related to masculinity may be the most indicative of resistance to help seeking.

Recommendations for Future Research

Overall, the findings and limitations of this study suggest that more research is needed to better understand attitudes toward help seeking in retired male college athletes. Based on the results of this study, masculinity is the featured trait that should be investigated in future research to better understand resistance to help seeking in sports culture. More specifically, studies should investigate various aspects of the concept of masculinity, searching for which aspects of masculinity specifically trigger an aversion to help seeking. This can be done by utilizing empirical scales other than the MRNI-SF, or by using the MRNI-SF and examining which specific items of the instrument are most highly connected to negative help seeking attitudes. Breaking down the concept of masculinity as a whole and understanding various elements that are most prominent in sports culture would be an important step to further identifying at-risk athletes and reducing stigmatization in the athletic community.

Future research should also build upon the limitations of this study. First, expanding upon the sample and incorporating an equal number of participants in both collision and non-collision groups would be helpful to better understand true differences between these two groups of athletes. Shortening the list of non-collision sports, and incorporating only sports that have zero body-to-body contact such as golf, tennis, track and swimming, would provide a more clearly defined contrast to the collision sport group as well. This would allow the study to reveal a clearer depiction of any differences between true non-collision and collision groups. It would also be advantageous for future studies to recruit an equal number of participants from the sports of football, wrestling, ice hockey, and lacrosse. The Collision group in this study was dominated by football players, and results may have been more reflective of attitudes toward help seeking of retired football players, than retired collision sport athletes in general. There were also inequalities among the number of participants in each racial group in this study. Although it is

unclear if a more equal division of race across the sample would have provided different results, reducing this disparity would provide a clearer illustration of the effect of the dependent variable on the two groups. Incorporating more participants from Latino, Asian, and Native American cultures to equal the number of Black participants would also elicit a more accurate representation of attitudes toward help seeking by people of color in general. Additionally, limiting the age range of participants would be a direction for future studies to consider as well. Participants in this study were between the ages of 18 and 66 years old. While it is unclear if age or developmental stage was an extraneous variable influencing the results, solely examining athletes who have either recently retired in the past year, or have been retired from sport for a number of decades, would be an informative addition to the extant literature.

Finally, because there is a pre-existing gap in the literature for this population in general, it is important to note that future research continuing to examine the struggles of retired male athletes in general is essential. Retired athletes are a population that has been scarcely studied in the extant literature, despite being at risk for a multitude of mental health difficulties. Retired male college athletes in particular are a population that has been even further neglected in previous research, and are an at-risk population for not only developing mental health difficulties, but for rejecting the idea of seeking psychological help. Athletes exhibiting hyper-masculine tendencies may be at further risk for having negative attitudes toward seeking psychological help, as they attempt to maintain ideologies of emotional constriction and avoidance of vulnerability taught to them in sports culture. Retirement can be a stressful time for many athletes as they cope with the loss of sport. If they are attempting to cope with additional life stressors in conjunction with retirement, and are unable to articulate their feelings or seek appropriate psychological help, they may be at risk for developing a more serious form of mental illness. Future research should continue to focus on this at-risk population, and prioritize a more

in-depth understanding of the risk factors and areas of resistance that prevent retired male college athletes from seeking professional psychological help.

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Appendix A

Demographic Questionnaire

Instructions: Please provide a response for each of the following questions:

1. What is your age? _____
2. With which racial or ethnic category do you most closely identify (check all that apply)?

African American _____ Asian/Pacific Islander _____ White _____ Latino _____ Native

American _____ Other: _____

3. Which sport did you play during your college career?

Baseball _____

Golf _____

Basketball _____

Soccer _____

Cross-country _____

Tennis _____

Swimming _____

Track _____

Water polo _____

Volleyball _____

Bowling _____

Gymnastics _____

Rifle _____

Football _____

Rowing _____

Lacrosse _____

Fencing _____

Ice-Hockey _____

Skiing _____

Wrestling _____

4. In which division did you compete during your college career?

Division I _____ Division II _____ Division III _____

5. When did you officially retire from college athletics (i.e., no longer were listed on the team's roster and did not play or practice with the team)?

Month _____ Year _____

6. Have you ever sustained a concussion while participating in sport?

Yes _____ No _____

Appendix B

Male Role Norms Inventory-Short Form

Please complete the questionnaire by circling the number which indicates your level of agreement or disagreement with each statement. Give only one answer for each statement.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	No Opinion 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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1. Homosexuals should never marry.
1 2 3 4 5 6 7
2. The President of the US should always be a man.
1 2 3 4 5 6 7
3. Men should be the leader in any group.
1 2 3 4 5 6 7
4. Men should watch football games instead of soap operas.
1 2 3 4 5 6 7
5. All homosexual bars should be closed down.
1 2 3 4 5 6 7
6. Men should have home improvement skills.
1 2 3 4 5 6 7
7. Men should be able to fix most things around the house.
1 2 3 4 5 6 7
8. A man should prefer watching action movies to reading romantic novels.
1 2 3 4 5 6 7
9. Men should always like to have sex.
1 2 3 4 5 6 7
10. Boys should prefer to play with trucks rather than dolls.
1 2 3 4 5 6 7
11. A man should not turn down sex.
1 2 3 4 5 6 7
12. A man should always be the boss.
1 2 3 4 5 6 7

13. Homosexuals should never kiss in public.
1 2 3 4 5 6 7
14. A man should know how to repair his car if it should break down.
1 2 3 4 5 6 7
15. A man should never admit when others hurt his feelings.
1 2 3 4 5 6 7
16. Men should be detached in emotionally charged situations.
1 2 3 4 5 6 7
17. It is important for a man to take risks, even if he might get hurt.
1 2 3 4 5 6 7
18. A man should always be ready for sex.
1 2 3 4 5 6 7
19. When the going gets tough, men should get tough.
1 2 3 4 5 6 7
20. I think a young man should try to be physically tough, even if he's not big.
1 2 3 4 5 6 7
21. Men should not be too quick to tell others that they care about them.
1 2 3 4 5 6 7

Appendix C

Attitudes Toward Seeking Professional Help

Instructions

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

0 = Disagree 1 = Partly disagree 2 = Partly agree 3 = Agree

_____ 1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.

_____ 2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.

_____ 3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.

_____ 4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.

_____ 5. I would want to get psychological help if I were worried or upset for a long period of time.

_____ 6. I might want to have psychological counseling in the future.

_____ 7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.

_____ 8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

_____ 9. A person should work out his or her own problems; getting psychological counseling would be a last resort.

_____ 10. Personal and emotional troubles, like many things, tend to work out by themselves.

Appendix D

Letter of Solicitation

Dear Potential Participant:

My name is Michael Filiaci, and I am a counseling psychology doctoral student at Seton Hall University. I am inviting you to join a research study investigating the relationship between masculinity, race, and type of sport on attitudes towards seeking psychological help. This letter explains the research study and what will be asked of you, should you decide to participate. Participation is completely voluntary and a participant can withdraw at any time without consequence. Please read this letter carefully, so you can decide if you would like to take part in this study.

Study Title: The Relationship between Masculinity, Race, and Type of Sport on Attitudes Toward Help Seeking in Retired Male College Athletes

Purpose of this study

The purpose of this study is to see if there is a difference between collision and non-collision sports, and race on attitudes toward seeking help in retired male college athletes. Studies have shown that retired male college athletes are at risk for many physical and emotional difficulties such as depression, chronic pain, substance abuse, and eating disorders. Despite these risks, many retired athletes do not seek counseling. There are many reasons why they may avoid seeking help for psychological symptoms. The purpose of this study is to determine whether type of sport and race are characteristics that can affect whether a retired male college athlete will ask for help when needed.

What the study asks

To be eligible for the study, you must

- Be a retired male college athlete over the age of 18
- Have played an NCAA varsity sport at a Division I, II, or III college/university in the United States.
- Have been officially retired (i.e., no longer were listed on the team's roster and did not practice with the team) for at least three months from college athletics.

Participants in this study will fill out three surveys that should take less than 10 minutes total to finish. These include the following:

1. Demographic questionnaire: This asks about your age, race, sport played during college, division of NCAA competition, and date of retirement from college athletics.
2. Male Role Norms Inventory-Short Form: This survey asks you to rate on a scale of 1 (strongly disagree) to 7 (strongly agree) statements like "Men should be detached in emotionally charged situations...."
3. Attitudes Toward Seeking Professional Psychological Help Short Form: This asks you to rate on a scale of 0 (disagree) to 3 (agree) statements like "I would want to get psychological help if I were worried or upset for a long period of time."

Study Benefit

There is no direct benefit to you. However, the results of this study may help researchers better understand how the culture of sports can affect willingness to seek help.

Study Risks

The risks in this study are minimal. However, if you become upset or feel uncomfortable at any time while taking this survey you withdraw without consequence by closing the browser window. You can also speak to a counselor or psychologist immediately by contacting 1-800-273-TALK or by using APA's psychologist locator service at:

https://locator.apa.org/?_ga=2.39652515.1684085803.1519678909-1000026211.1494004804

Confidentiality

There is no full guarantee of confidentiality or anonymity because payment for participation is linked to your Amazon account. As with any information sent through the internet, there is a risk of a data breach. However, the information gathered in this study will not identify participants in any way to the researchers. Researchers will only be shown Mechanical Turk users' assigned worker ID numbers. These numbers will not be shared with anyone. They will be removed from the results of the survey, and will not be linked to the survey data. If you decide to participate, you will be directed to an outside survey website called Qualtrics to complete the study.

Completion of this survey will earn you \$1.00 via Amazon.com's Mechanical Turk. Please see Mechanical Turk's privacy policy for any additional information.

<https://www.mturk.com/mturk/privacynotice>.

Compensation

Completion of this survey will earn you \$1.00 via Amazon.com's Mechanical Turk.

Who will see your answers

Results will be kept in a locked, secure location and will only be viewed by me (Michael Filiaci) and my research mentor Dr. Pamela Foley. Data will be retrieved from the Qualtrics server and placed on a USB memory key. The USB memory key will be kept locked in a secure physical site. Subjects will be assigned a numeric identification code and no personal identifying information whatsoever will be collected.

Contact Information

If you have any questions about this study or what is expected from you, feel free to contact me at 973-761-9668 or at michael.filiaci@student.shu.edu. You may also contact my advisor, Dr. Pamela Foley, at 973-275-2742 or pamela.foley@shu.edu. If you have questions about your rights as a research participant, you may contact the director of the Institutional Review Board at Seton Hall University, Michael LaFountaine, at (973) 313-6314.

Voluntary Consent to Participate

You may withdraw from this study at any time by closing the browser window. Your consent to participate in this study is given by clicking the link below:

(Link Will go here)

Appendix E

Approval Letter from Institutional Review Board (IRB)



May 11, 2020

Michael Filiaci
Seton Hall University

Re: Study ID# 2020-073

Dear Mr. Filiaci,

The Research Ethics Committee of the Seton Hall University Institutional Review Board reviewed and approved your research proposal entitled “The Relationship between Masculinity, Race and Type of Sport on Attitudes toward Help Seeking in Retired Male College Athletes” as resubmitted. This memo serves as official notice of the aforementioned study’s approval as exempt. Enclosed for your records are the stamped original Consent Form and recruitment flyer. You can make copies of these forms for your use.

The Institutional Review Board approval of your research is valid for a one-year period from the date of this letter. During this time, any changes to the research protocol, informed consent form or study team must be reviewed and approved by the IRB prior to their implementation.

You will receive a communication from the Institutional Review Board at least 1 month prior to your expiration date requesting that you submit an Annual Progress Report to keep the study active, or a Final Review of Human Subjects Research form to close the study. In all future correspondence with the Institutional Review Board, please reference the ID# listed above.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Mara Podvey".

Mara C. Podvey, PhD, OTR
Associate Professor
Co-Chair, Institutional Review Board