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UNNECESSARY ROUGHNESS: OFF-FIELD AGGRESSION AND CRIME IN COLLEGE FOOTBALL

A Dissertation

Submitted to the School of Graduate Studies and Research

In Partial Fulfillment of the

Requirements for the Degree

Doctor of Clinical Psychology

Lauren R. Swenson

Indiana University of Pennsylvania

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Title: Unnecessary Roughness: Off-Field Aggression And Crime in College Football

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This study explores factors (entitlement, personality, head trauma, exposure to violence) that may be correlated with a college football player engaging in criminal behavior. The purpose is to potentially identify which players are “at risk” for difficulty with team and/or societal rules that will prevent them from being successful on the sports field.

A sample of 75 participants (40 football players; 35 non-athletes), consisting of males, between 18 and 25 years of age, enrolled in undergraduate courses in college completed the survey. The survey consisting of the Entitlement Attitudes Scale (EAS; Nadkarni, 1994; Nadkarni, Steil, Malone, & Sagrestano, 2005), Mini-Markers (Saucier, 1994), as well as a background survey assessing exposure to violence, head trauma, and participation in criminal behavior was administered to the participants electronically. The Balanced Inventory of Desired Responding (BIDR; Paulhus, 1991) was also administered to

assess the candor in which the participants answered the survey.

Analyses compared the athletes and non-athletes on each of the factors. Responses to the criminal questionnaire, adapted from Giever (1995), were summed to create a criminality index. Participants were placed into either the high crime group or low crime group based upon whether their responses fell above or below the 50th percentile. None of the factors were correlated with the high crime group; however, differences did exist between the football players and non-athletes. The football players and non-athletes differed on personality traits, entitlement, and exposure to violence. There were no differences on the BIDR, which suggests that both groups responded to the survey with a similar level of frankness.

This study indicates that there are several noteworthy differences among football players and their non-athlete counterparts. These are areas that can be addressed through interventions in order to decrease any risk and ultimately maximize participation in their intended pursuits.

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CHAPTER I

INTRODUCTION

Off-field aggression and violence appears to be highly prevalent among professional athletes, particularly among professional football players. Reports indicate 93 official arrests on record in 2008, which does not take into account those players who were arrested for multiple crimes and/or those who were not caught (Coon, 2008; Schrotenboer, Hobbs, & Monteagudo, 2009); however, this problem is not reflected in the literature. Benedict and Yaeger (1998) found in a nationwide survey that twenty-one percent (1 out of every 5) players in the NFL have been charged with a serious crime. Furthermore, out of the 109 players with a criminal history, it was found that there was an average of 2.42 arrests per player.

A discussion on base rates is important; however, there is no way to conduct a simple demographic comparison when taking into account education level, socio-economic status, and pay. The United States Department of Justice (2003) reports that in 2002, 29.9% of males between 23 and 34 years of age were arrested for criminal behavior (Table 39). Although this number is greater than the number reported by Benedict and Yaeger (1998) for individuals who play in the NFL, it is important to note that the Uniform

Crime Report includes both males who have and have not received varying levels of college education. This becomes an important factor to take into consideration because research has found that the number of crimes committed drop off at a rapid rate as individuals gain more education (Anderson, 1995; Steurer, & Smith, 2003).

In 1992, federal law required colleges and universities to report crimes occurring on their campus (The Chronicles of Higher Education, 2009); the United States Department of Education (2009) reports that in 2002 there were 123,940 alleged violent and nonviolent criminal offenses across college/university campuses. It is important to note that the Office of Postsecondary Education does not take into account multiple crimes committed by a single individual or the sex of the offender, which could possibly augment the statistics. However, if we assume that each of the offenses was committed by a different individual, with no repeat offenders, then 0.73% of individuals enrolled in college, in 2002, committed a criminal offense. Ultimately, when considering the statistics reported by the Department of Justice, it is important to keep in mind that due to their financial earnings, level of college education, and age, the NFL is a very unique group. Therefore, it can be argued

that those individuals should be held to a higher ethical standard than their non-professional athlete counterparts because they are in a sense “heroes” to so many young boys and may be unintentionally encouraging illegal behaviors (Benedict & Yaeger, 1998; Chandler, Johnson, & Carroll, 1999).

The National Football League spends millions of dollars a year on player contracts ($116 million per franchise) with no guarantee that the player will not become ineligible due to legal troubles (Pasquarelli, 2006). Players such as Adam “Pacman” Jones, Ricky Williams, and Michael Vick have become household names for their wild and aggressive behaviors that violate societal laws, values, and mores. However, problematic behaviors are not only found among those athletes that have reached the professional level. It is common to encounter publicity about similar issues among collegiate football players. A study conducted by Caron, Halteman, and Stacy (1997) found through surveying 200 college police departments that assaults perpetrated by athletes were reported approximately every 18 days. It is important to note that this number is likely to underestimate the actual number of assaults by athletes for several reasons including the failure for the team or victim to report the criminal act

(Chandler et al., 1999; Young, 1990). A study comparing college athletes to their non-athlete counterparts, found that student athletes reported higher levels of sensation seeking behavior than non-athletes. Furthermore, higher sensation seeking was found to be associated with self-reported criminal behavior among these student athletes (Young, 1990).

The limited research into the criminal behavior of collegiate and professional athletes is addressed by Rowe (1998), who proposes the question “Are athletes running roughshod over our campuses, or are they just part of a wider problem?” However, no one has been able to answer this question, mainly because this aspect of athletics has only just begun to be researched and the results are limited and inconclusive (as suggested by Rowe). One reason for the limited research is that the exploration of criminal behavior in collegiate and professional athletes is highly controversial to persons and institutions with intense concerns for public perception.

Research in this area is necessary because it will help distinguish what factors are associated with those athletes who have been found to engage in criminal behavior from those who do not. The empirical data will be crucial in allowing professional organizations to be more effective

when assessing risk, which can be achieved on a group or individual basis. Generalized risk assessment helps professionals identify whether or not a specific group of individuals is more likely to be involved in aggressive acts, while individualized risk assessment, on the other hand, aims to predict whether or not a specific individual may pose a threat (Megargee, 2002).

The present study aims to assess the extent to which specific factors (i.e., personality, entitlement, head trauma, and exposure to violence) are correlated with criminal behavior in collegiate football players. Furthermore, the study explores what differences, if any, exist between collegiate football players and their non-athlete counterparts. The factors for the present study were selected based upon a review of relevant literature.

CHAPTER II

LITERATURE REVIEW

Measurement in Risk Assessment

Many researchers are interested in evaluating risk for aggression and violence; evaluation of risk can be conducted both retrospectively and prospectively. Prospective evaluations of risk evaluate whether a person is likely to commit aggressive acts in the future. Many factors need to be considered when assessing future risk including: whether or not the individual is capable of engaging in an aggressive act, information regarding against whom the aggressive behavior might be directed, under what conditions it is likely to occur, and if there will be the opportunity to perpetrate the aggressive behavior, as well as the interventions that are likely to increase or decrease the risk of aggressive behavior (Megargee, 2002).

Megargee (1993; 2002) has developed a model that depicts risk assessment and behavioral outcomes; therefore, the discussion will highlight some of the major features of Megargee's work as a way of developing the strategy for the current study. The model has been developed to help identify the way in which the hypothesized components of aggression are related to the probability of behavioral

outcomes. Factors that have been found to determine the strength of the outcome include habit strength, inhibitions against aggression, situational factors, and reaction potential. All of these factors are believed to be associated with the instigation to aggression. “Instigation to aggression is the sum of all the forces that motivate an individual to commit a violent or aggressive act” (Megargee, 2002, p. 620).

Each factor of Megargee’s model is integral in understanding behavioral outcomes and will impact the questions that will be administered during the data collection phase of the study; therefore, each of the model components will be discussed in depth. Habit strength is defined, by Megargee, to be the extent to which a behavior has been rewarded or punished in the individual’s past. It is important to note that reinforcement can occur both directly and indirectly. Exposure to violence thus becomes an important factor to consider; if an individual has witnessed violence and aggression to be an appropriate method of dealing with conflict, he/she may engage in similar behaviors when confronted with conflict (Bandura, 1973; Lord & Mahoney, 2007; Megargee, 2002; Terry & Jackson, 1985). Habit strength is the variable in the

algebra of aggression equation that predicts aggression the best.

Habit strength becomes an important factor to consider because if an individual has received reinforcing outcomes for deviant behavior, he/she will be more likely to behave in a similar manner in the future (Skinner, 1948). Since future behavior can be predicted by past behavior, an individual's background (e.g., history of deviant behavior, attitude towards deviant behavior, outcome of past deviant behavior) must be assessed (Akers & Sellers, 2009). It is important to note that causation cannot be assumed because the relationship that exists between past and future behavior is purely correlational. In fact, there can be many factors that can inhibit an individual from engaging in aggressive behaviors.

Inhibitions against aggression oppose the individual's motivational factors to engage in aggression; inhibition factors consist of morals, practical considerations, fear of retaliation, or failure. Inhibitions have been found to be the most difficult to assess; an individual must be confronted with instigation to assess if and how he/she refrains from engaging in violent behavior (Megargee, 2002). Seeing that violence is interpersonal, in order to effectively assess inhibition, an individual must be

confronted and instigated. Therefore, clinical interviews are pertinent to effectively assessing an individual's potential for aggressive behavior. For example, does the individual have a quick temper and respond to provocation in a hostile manner? Kelly (2008) states that coaches aren't necessarily looking for the correct answer to the question, but instead the way in which the prospect speaks the answer. By provoking potential draft picks, team officials are able to judge whether or not the individual becomes angry easily, how he responds to adversity, whether he will reveal something he was trying to hide (http://www.sun-sentinel.com). However, because clinical interviews are not always feasible, personality data provided by psychological assessments must be relied upon.

As previously stated, one of the reasons an individual may refrain from engaging in aggressive behavior despite provocation is the morals and/or values he/she upholds. Moral beliefs are influenced by a variety of factors including the way in which the individual was raised (i.e. environment, disciplinary consistency and fairness, participation in community programs, such as church). Therefore, if an individual is subjected to parental absence, abuse, inconsistency, neglect, and/or has poor role models, he/she may develop inappropriate values as

well as a controlling and aggressive approach to dealing with conflict (Megargee, 1997).

Another reason assessing inhibitions may be difficult is because it can be altered by a variety of factors including those that are psychological and physiological (Megargee, 2002). Some of the psychological factors that can result in insufficient inhibitions include the failure to develop such inhibitions due to insufficient socialization and/or abuse as a child or adolescent, as well as exposure to role models who endorse violence. Meanwhile physiological factors that can result in a decrease in inhibitions include injuries affecting the brain and central nervous system, certain endocrinological disorders, and chemical actions of substances noted to decrease inhibition, such as alcohol. However, more than just physiological factors contribute to the way a person responds in various situations. Due to the impact that social decisions, such as drug and alcohol use can have upon aggression and inhibition, situational features must be considered. External factors that can facilitate aggression include the people present, the environment, and the stimulus (Megargee, 2002; Nixon, 1997; Snyder, 1994).

Finally, the reaction potential is assessed by balancing the forces inhibitory and excitatory factors. If

an individual is experiencing a higher level of excitatory factors than inhibitory ones, then an aggressive response will most likely occur. In prospective assessments of risk, the situations which the individual may be confronted with must be considered when planning interventions. Because college athletes are the population of interest, the situations that they may encounter must be thoroughly considered. More specifically, the settings as well as the social decisions these individuals make, such as the frequency and amount of alcohol in which the individual consumes must be factored against his/her level of inhibition.

Megargee's model of aggression has been found to be one of the most versatile and cost-effective tools for explaining aggressive behavior (Stephenson, 1996). Not only is his algebra of aggression model used in research focused on predicting aggression, but it is applied to a forensic population. His model is used in prisons across the United States, as well as internationally.

Personality Assessment

In research with non-athletes, individuals who engage in criminal behavior have been found to have greater negative emotionality and less constraint (Krueger, Schmutte, Caspi, Moffitt, Campbell, & Silva, 1994). High

negative emotionality, as assessed by Krueger et al. (1994), results in an individual experiencing anger, anxiety, and irritability at greater levels than other individuals. When negative emotionality is coupled with low levels of constraint, there is a higher tendency to respond to situations in a manner that appears to be based on a rigid and stereotypic view of the intentions of others. In particular, such individuals are more likely to perceive hostile intentions in others and thus believe aggressive reactions are justified and necessary, and may act without considering alternatives. For example, an individual with this personality profile might perceive actions of others as threatening and thus respond in an aggressive manner. Laufer, Johnson, and Hogan (1981) found that “adjudicated or incarcerated criminals are more impulsive, hostile, self-centered, and immature” than their non-criminal counterparts (p.179). Impulsivity has been suggested to be the personality feature most associated with antisocial behavior (Vold, Bernard, & Snipes, 1998). This impulsivity is hypothesized by Wilson and Hernstein, as cited in Vold et al. (1998), to be related to criminal behavior when there has been a disruption in the development or a complete failure to develop internal inhibitions against committing crimes.

Meanwhile, when using the NEO- Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992) to assess the personality of psychopathic individuals, which is a 240 item self-report measure that assesses the five major domains of personality (i.e., Neuroticism, Extraversion, Openness to Experience, Agreeableness, Conscientiousness) as well as six facets that define each domain, Knap (2000) found that specific profiles were strong predictors of criminal behavior. In a criminal population, the personality profile is characterized by a very low score on the Agreeableness domain, including all facets, as well as low scores on the Conscientiousness domain. The lowest facet scores on the Conscientiousness domain are noted to be Dutifulness, Self-Discipline, and Deliberation. Furthermore, these individuals often score average on the Neuroticism and Openness domains with low facet scores on Anxiety and Values, respectively; in addition to the low Anxiety facet score on the Neuroticism domain, Hostility and Impulsiveness are often elevated. Finally, these individuals score high on the Extraversion domain, with a low score on the Warmth facet, and high scores on the Excitement-seeking and Assertiveness facets. Due to the distinct personality profile provided by the NEO-PI-R as well as the administration time of this assessment, the

Mini-Markers will be used in the current study. The Mini-Markers is an abbreviated inventory that assesses the five personality domains using 40 items as compared to the 240 item NEO-PI-R.

Head Trauma

Football is known for its strong physical nature and hard hits. Therefore, it is no surprise that the sport is responsible for a majority of the sports-related concussions (Delaney, Lacroix, Leclerc, & Johnston, 2002). It is important to note that direct impact to the head is not necessary to suffer a concussion; instead, a concussion is the “rapid acceleration/deceleration forces resulting in rapid flexion-extension movement of the neck” (Lezak, 1995, p. 178). In a study assessing the number and impact of concussions, as reported by college football and soccer players, it was found that in the previous year, 70.4% of those football players studied had experienced symptoms of a concussion (Delaney et al., 2002). More importantly, 84.6% of those football players reporting symptoms of a concussion experienced more than one (23.6%, 17.1%, 11%, 5.7%, 17.1%, and 10.1% reporting 2, 3, 4, 5, 6-10, and >10 concussions respectively).

Delaney et al. (2002) found that out of the 70.4% of football players who had suffered a concussion in the

previous year, only 23.4% recognized that they had. This is an important statistic to note because most individuals only considered the more severe symptoms to be indicative of a concussion. Lezak (1995; Lezak, Howieson, Loring, Hannay, & Fischer, 2004) suggests that there are two distinct categories of concussions: mild and classic. A mild concussion is not accompanied by a loss of consciousness, but instead is characterized by a short period of confusion and disorientation. Even though a mild concussion does not have to be accompanied by post-traumatic amnesia, the effects are still significant. Meanwhile, a classic concussion is “defined by [a] reversible coma occurring “at the instant of trauma,” which may be accompanied by cardiovascular and pulmonary function changes and neurologic abnormalities” (p. 178). Typically the confusion and disorientation are resolved within several hours or days and is considered to be a mild head injury. Even though the classic concussion is characterized by more severe symptoms, the mild concussion can result in significant neurobehavioral consequences.

Due to the fact that the consequences of concussions are exacerbated by subsequent, even minor, head trauma, it is recommended that the player receive adequate time to let his/her injuries heal. However, because many athletes do

not recognize and/or report the symptoms of a concussion, collegiate football players often return to the field shortly after suffering a concussion; return to play can occur several plays or days later. Furthermore, since prior head injuries make an individual more susceptible to subsequent injuries, returning to the field too quickly can increases the likelihood that he/she will receive a more serious brain injury. Additionally, subsequent head trauma of similar magnitude could result in more severe effects (Lezak, 1995; Lezak et al., 2004).

The behavioral effects of a head trauma are influenced by the severity, age, site of the lesion, and premorbid personality (Lezak, 1995). Severity of the head trauma is an important factor to consider when assessing behavioral consequences. Some ways to assess the severity of a head trauma include CT and MRI scans; however, these methods may not always be feasible to include into a neurological assessment. Therefore, severity of the head trauma can also be determined by gathering information such as whether or not the individual experienced a loss of consciousness and if he/she suffered from post-traumatic amnesia. If the individual indicates that he/she did experience post-traumatic amnesia, it is important to gather information

regarding how long after the concussion they had their first memory.

The next factor to consider is the age of the individual when the head trauma occurred. The prognosis is better if head injury occurs earlier in life because the brain is better able to recover due to its plasticity. Research literature suggests that the peak ages for a head injury are between 15 and 24 years of age (Lezak, 1995); therefore, sports related head injuries become an important factor to consider in the present study. However, it is not accurate to state that all brain injury as long as it occurs early in life has a better prognosis. The site of the lesion interacts with the individual's age to create a potentially dramatic behavioral change so it is very important to consider the area of the brain that is affected by the head trauma. The frontal lobes, which are discussed at length below, continues to develop into the individual's early twenties, thus a head trauma in this region early in life can have severe consequences because it can prevent this important area of the brain from developing properly (Lezak 1995; Lezak et al., 2004).

Finally, the individual's premorbid personality is an important consideration because if the individual sustains head trauma, especially in the frontal lobe region, their

premorbid personality will become more exaggerated. Since inhibitory processes are controlled in the frontal lobes, if the person suffers a head trauma they will no long have the mental capacity to inhibit their negative and/or inappropriate behaviors. Therefore, if an individual had a strong tendency toward aggression premorbidly, his/her aggressive behaviors will become exacerbated after a head injury.

Neurobehavioral consequences of concussions consist of changes in several categories including: emotional, social perceptiveness, impaired self-control, and behavioral rigidity (Lezak, 1995; Lezak et al., 2004). Emotionally, an individual in a post concussive state may become more irritable and less patient. In severe cases, a post concussive individual will also experience an increase in his/her temper as well as the violent responses he/she displays when agitated. In addition to emotional consequences, an individual who suffered a concussion will have a diminished appreciation for other individual's needs, and will not learn from behavior mistakes he/she makes.

Childhood Exposure to Violence

Exposure to violence becomes important to consider because, as stated earlier, the environment in which an

individual is raised has a profound impact upon the behavior the individual exhibits as he/she gets older. Exposure to neighborhood violence has been found to have a greater ability to predict externalizing behaviors such as aggression, fighting, and perpetrating violence than demographics and a family history of psychological illness (Lord & Mahoney, 2007). Exposure to violence does not only need to occur in the community, but can also occur within the home according to modeling theories (Bandura, 1973; Lord & Mahoney, 2007; Megargee, 2002; Terry & Jackson, 1985). A study by Chandler et al. (1999) found that athletes who considered their formative years to be abusive were more likely become perpetrators of abuse during their collegiate years.

Entitlement

Entitlement can be the result of years of "grooming." Athletes that have the skill to play at the collegiate and professional level have experienced a significant amount of praise and privileges from their peers, coaches, and professors. This may occur at the expense of constructive attention to the broader psychological development of the individual athlete. As a result, skillful athletes come to believe that they deserve, and are even entitled to, preferential treatment over their non-skillful or non-

athlete counterparts, which can have a negative impact on their development (Benedict & Yaeger, 1998). It has been suggested by Nicholi, cited in Rowe (1998), that some "players have been indulged for most of their lives and thus they may have failed to internalize the controls that most people acquire before reaching late adolescence and early adulthood" (p 258). As previously discussed, this limited emotional and social development can lead to an inability to manage interpersonal situations in an appropriate manner.

A sense of entitlement is then strengthened by the fact that when athletes do engage in socially inappropriate or illegal activities, they are usually dealt with "in an extremely lenient fashion" (p. 257). Student athletes have been found to be among the most violent sub-population on college campuses (Crosset, Benedict, and McDonald, 1995; Young, 1990), but are often among the lowest to actually be convicted of their crimes (Crosset et al., 1995). A three year study conducted by Crosset et al. (1995) found that although male athletes at thirty major Division I universities comprise 3.3% of the college population, they are represent 19% of sexual assault perpetrators and 35% of domestic violence perpetrators. Furthermore, the study yielded that when athletes were charged with crimes, their

conviction rate was only 38% compared to 80% of the general population. Even though some universities automatically suspend players who are charged with a crime, other coaches wait until official investigations and rulings are completed. Coach's leniency does not begin after his/her player is charged with a crime; instead it has been suggested that coaches are so driven to be successful on the field that they are willing to overlook prior criminal behavior of current and/or prospective players (Benedict & Yaeger, 1998; Kelly, 2008; Rowe, 1998). Entitlement has also been noted to be a specific pattern of thinking found in those individuals who perpetuate crimes (Vold et al., 1998). It is the belief that any action is justifiable in order to achieve what he/she desires.

In addition to athletes believing they deserve preferential treatment, several hypotheses for why male athletes engage in off-field aggression have been suggested. Nixon (1997) suggests that male athletes place higher value on toughness displayed on the field, and as a result male athletes were found to engage in more physically aggressive acts off the field than their female counterparts. Previous research suggests that athletes who participate in sports that are characterized by more contact and collisions are more likely to engage in

violence (Yiannakis, 2001). One explanation that has been offered is that the athletes in contact sports “learn to get what they want by employing legal but rough physical means to attain their objectives” (p. 358). Therefore, when the athletes are successful through the use of aggressive acts, they learn that using their physical strength is an effective means of obtaining what they want. In a study conducted by Nixon (1997) it was found that those athletes in contact sports, such as football and basketball, participated in a higher number of aggressive acts outside of their sport.

Hill and Fischer (2001) indicate that past research has shown that strict adherence to gender roles, more specifically the belief that aggression and power is necessary when defining what it means to be male, is predictive of rape-related crimes. However, the study found that entitlement completely mediated the relationship that was found to exist between masculinity and rape-related beliefs and behaviors. A sense of “entitlement in the context of masculine gender role socialization as well as the consequences such beliefs could have for [the holder of those beliefs] and for the people around them” (p. 46) is going to have significant implications upon the development and implication of effective interventions.

On-field Aggression

A discussion about football cannot occur without discussing aggressive behaviors that takes place on the field. In order to be successful in a contact sport such as football, certain levels of aggression are necessary. Sports research has classified aggression into three categories: assertive behavior, instrumental aggression, and hostile aggression (Silva, 1983; Tenenbaum, Stewart, Singer, & Duda 1997). Assertive behavior is considered to be positive aggression behavior that occurs within the guidelines of the sport; meanwhile, instrumental and hostile aggressions are both defined to be negative and intentional attempts to inflict harm on another. Instrumental aggression occurs when a player makes attempts to “inflict physical damage as a step towards the higher goal of winning” (Lemieux, McKelvie, & Stout, 2002, p. 42). Hostile aggression is the most severe form of aggression as the player is determined to physically harm an opponent in an expression of anger.

It has been hypothesized that sports that involve contact as a necessary component of the game may either attract people who are already aggressive or promote aggression through participation (Cox, 2002). Expanding upon the latter, because increased physical aggression

within the context of the sport is rewarded, it has been suggested that it in turn increases the frequency of similar behavior within the sport, thus making it more likely to be a response exhibited in situations that go beyond the boundaries of the field (Chandler et al., 1999; Zillman, Johnson, & Day, 1974). However, research that has explored the possible relationship between aggression and sport type, as defined by Silva (1983): collision (contact is integral and necessary), contact (contact is legal and occurs incidentally), and non-contact (contact between players is prohibited), has been inconclusive. Although early research revealed a positive relationship between sport type and the amount of aggression exhibited by the athletes (Ellis Gardner & Janelle, 2002; Silva, 1983, Tucker & Parks, 2001), more recent research has disputed those findings (Keeler, 2007; Lemieux et. al., 2002). Recent research suggests that other factors, such as the physical stature of the athlete (Lemieux et. al., 2002) or perceived approval by teammates and coaches to engage in cheating or aggressive behavior for the goal of winning (Keeler, 2007) need to also be considered in order to fully understand the relationship between sports participation and aggression.

Past Criminal Behavior

A six month investigation conducted jointly by Sports Illustrated and CBS revealed that 7% (1 out of every 14) of college football players in the pre-season Top 25 had been charged with or cited for a crime (Benedict & Keteyian, 2011). Multiple arrests were not accounted for in the figures obtained. The study assessed all of the players on the Sports Illustrated Pre-season Top 25 teams, a total of 2,837 football players. It should be noted that players who were expelled from school or released from the team due to their participation in unlawful behavior, were not included in the study, nor was there access to juvenile records for over 80% of the sample. Results revealed that nearly 40% of the crimes committed were serious and violent offenses that included assault and battery, domestic violence, aggravated assault, robbery, and sex offenses. Additionally, there were over 40 charges for property crimes (i.e., burglary, theft, and larceny) and over 100 incidents of drug and alcohol offenses (i.e., DUI, drug possession, and intent to sell cocaine). The study suggests that schools do not conduct enough research into the players they recruit, or perhaps the lack of importance placed upon the information gathered, as the goal of winning may outweigh questionable past behaviors.

Criminal behavior will be measured through self-report because the present study is anonymous and conviction records may not address all the criminal behavior an individual engages in (Krueger et al., 1994). Crisanti, Laygo, Claypoole, and Junginger (2005) found in a study that the overall accuracy of self-reported arrests in a severe and persistent mentally ill (SPMI) population was 84.7%. Due to the population of this study, it is important to note that the participants in the Crisanti et al. (2005) study are susceptible to more than the usual errors that exist when asking individuals to recall and report sensitive behaviors. Studies assessed the validity of self-report measures because of the time and cost such measurement can save, and in the general population, correlations between self-reported criminal behavior and official records can be as high as .80 (Hindelang, 1981). A study of violent offenders by Kroner, Mills, and Morgan (2007) found that underreporting of criminal behavior was minimal with only approximately ten percent of information loss. Self-report measures have also been found to minimize biases that exist in official measures of delinquency, and thus are a valid and reliable way to measure participation in criminal behavior (Krueger et al., 1994). Overall, the literature suggests that self-report is an acceptably

accurate and valid method of capturing a majority of criminal offenses (Kroner et al., 2007).

Factors as They Relate to the Present Study

In this study, it is hypothesized that collegiate football players differ from the general population, and that there are significant differences among the individuals that make up this group that are associated with some athletes being more likely to engage in aggressive and/or criminal behavior. Therefore, in order to evaluate whether or not a group consisting of collegiate football players is diverse when it comes to potential risk, a variety of factors will be assessed. Aggression is a term that can be defined in many ways; however, in the present study, it will be defined as overt, direct, intentional human aggression; “physical or verbal behavior that can cause people distress, pain, or injury, or damage their property or reputations” (Megargee, 2002, p. 436). Criminal behavior will be defined as any behavior that violates general laws of society, including but not limited to robbery/theft, assault, rape, drug possession, and traffic violations.

The selection of the variables being assessed in the present study was based upon rational consideration of the most fruitful areas of inquiry. A brief personality

assessment will allow specific aspects of an individual to be evaluated. Specific personality dimensions have the ability to describe an individual's sense of impulsivity, compliance, trust, and self-discipline. In addition, because it is has been found that through repeated head injuries, such as concussions, individuals have an inability to properly think through the consequences of their behaviors (Lezak, 1995; Lezak et al., 2004), the number of mild head injuries will be explored.

Individuals are influenced by the environment in which they were raised (Moser & Uzzell, 2003); as a result, sociocultural influences can be explored by addressing socio-economic status. Factors that are impacted by an individual's surrounding environment include the amount of violence to which they were subjected, the amount of parental involvement, and the disciplinary tactics utilized by his/her parents. These factors have been found to influence the way in which individuals perceive individuals in authority positions, as well as the manner in which they manage or deal with discipline (Lord & Mahoney, 2007). Finally, athletes that have the skill and ability to participate and perform on a collegiate level have been exposed to preferential treatment for a number of years. As a result of the increased attention and respect collegiate

athletes receive, some individuals begin to internalize that feeling and begin believing they are entitled to engage in behavior that may not be acceptable by others (Benedict & Yaeger, 1998; Kelly, 2008; Rowe, 1998).

Conclusion

By examining factors that can potentially help identify those individuals who might be “at risk” for difficulties with team and societal rules, coaches at the collegiate and professional level will be better able to prepare and assist such individuals to reduce risk and maximize their participation in their intended pursuits. Identification of personality correlates can also be extremely useful when determining remedial or rehabilitative efforts. Additionally, by identifying athletes that are more likely to engage in criminal behavior, coaches may be better able to determine which athletes are in need of assistance to effectively reduce their criminal risk and thus maximize their participation in their athletic endeavors.

Hypotheses

Hypothesis 1: Athletes will report higher levels of criminal behaviors than the non-athletes.

Hypothesis 2: Criminal behavior is associated with distinctive personality traits which are present to a higher degree in athletes.

Hypothesis 3: Criminal behavior is associated with more reported concussions and loss of consciousness; both which are also more common among athletes.

Hypothesis 4: Criminal behavior is associated with exposure to violence during an individual’s formative years, which will be more common in athletes.

Hypothesis 5: Criminal behavior is associated with higher levels of entitlement, which will be present at higher levels in athletes.

CHAPTER III

METHOD

Participants

The survey was administered to 78 male undergraduate students enrolled in two different universities. Of the surveys completed, two met criteria for exclusion (they participated in a sport other than football at the varsity level) and one dropped out of the study. Exclusion criteria was based upon the hypothesis that athletes of various sports share a certain degree of attributes that were being measured. Therefore, had their data been collected it might have made it difficult to identify true differences that exist between the football players and non-athlete samples. As a result, participants from all sites (N = 75) included male football players and non-athletes of various class rankings and ranged between 18 to 24-years of age (M = 19.84, SD = 1.68). Table A1 illustrates the composition of the participant's demographic information, broken down by group, as well as information by which they were contacted and completed the survey.

Participants included 40 volunteers (50% White, Non Hispanic, 45% Black, 5% Other) from a prominent Division I NCAA football team. For the protection of the athletes and the university for whom the participants play, the name of

the university will remain anonymous. Those participants who were members of the varsity football team were initially informed of the study by their coach.

Participants also included 13 non-athlete volunteers (100% White, Non Hispanic) from the same university who served as a comparison group. These participants were selected through the registrar's office at the university. The registrar's office compiled a randomized listserv of 1500 students meeting criteria for the study. Once a random sample of male undergraduate students was created, an e-mail was delivered to all of the students on the listserv from the researcher.

Due to lack of participation at the university, 22 non-athlete volunteers (84% White, Non Hispanic, 12% Black, 4% Asian) from Indiana University of Pennsylvania (IUP) were used to supplement the data collected from the original university. These participants were selected through the Introduction to Psychology subject pool and received course credit for their participation.

With the exception of course credit, volunteers received no compensation for their involvement in the study. They were informed that they were able to withdraw at anytime or not submit their completed survey with no penalty. All participants electronically signed an informed

consent that had been approved by the Indiana University of Pennsylvania (IUP) Institutional Review Board (IRB) prior to participation in the study. A copy of the consent form can be found in Appendix D.

Procedure

Due to the fact that participants in the study came from different universities, the procedures were slightly altered for each group of collected data. For the athlete group, a time was set up by a football administrator. The players met the researcher in a computer lab in the athletic department. Each football player was asked to sit at his own computer where he received a brief introduction to the study without providing information regarding the study's nature that could alter the way in which questions were answered. The expected length of time it would take for the participants to complete the survey, issues regarding confidentiality, and the necessity for honest reporting were highlighted during the introduction.

Given that the non-athlete comparison group who attended the same university as the athletes was a larger group, the registrar's office was contacted in order to receive contact information for males enrolled in undergraduate classes. An e-mail requesting their participation in a doctoral dissertation was sent by the

researcher providing a brief description of the study and time required to participate as well as a link to the survey.

Students at IUP who were assigned to participate in the study based upon criteria provided (i.e., male, undergraduate status) to the subject pool were contacted by e-mail in order to establish communication. Upon responding to the researcher, each student was assigned a designated time in which they were to meet with a research assistant in a computer lab located in the psychology building. Participants were seated at their own computer and were provided a brief introduction to the study. As stated above, the expected length of time it would take for the participants to complete the survey, issues regarding confidentiality, and the necessity for honest reporting were highlighted during the introduction.

For those students who completed the study in the presence of a researcher, the computer was set to the informed consent page of the study. For those participants who received an invitation to the study by e-mail, a link was provided that when endorsed, brought them to the informed consent page. If participants agreed to participate in the study after reading the informed consent, they completed a background survey, the Mini-

Markers personality assessment, a criminology self-report measure, the BIDR, and the EAS electronically. Upon deciding whether or not to submit their data, participants were electronically provided with a debriefing letter describing the nature of the study as well as who to contact if they had any questions. As stated above, participants who endorsed items indicating that they were members of a varsity sport other than football were taken to the end of the survey and their data was not collected.

Measures

Because of the extreme premium on the athletes' time as well as the sensitivity of the study questions, the economy of study measures was a major consideration in instrument selection. The following measures were used to examine the research questions.

Background Survey

At the beginning of the background survey, questions gathering basic demographic information regarding the participant's age, race, and year in school, as well as questions to see if they participated in varsity football were asked. For those participants who reported that they were a part of the collegiate football team, additional information was collected regarding the amount in which

they play and if they were suspended from the sport for any reason.

A brief report of the number of concussions an athlete has had was necessary in order to gain insight into possible neurological deficits that could impact several aspects of their personality and decision-making skills. Two questions were asked to determine the extent to which the participants endured head trauma. The first question looked at the number of times participants recognized that they have had a concussion, “How many times have you suffered a concussion?” The second question looked at how many times those concussions led to more severe post-concussive symptoms, “How many times have you suffered a hit to the head that resulted in a loss of consciousness or gaps in your memory?” These questions allow the opportunity to determine which participants have a greater likelihood of neurological side effects, such as an inability to control their impulses or think through the consequences of their behaviors.

Also included in the background survey were questions addressing exposure to violence. In order to get information about possible exposure to violence, the study included statements that addressed physical discipline techniques utilized by adults in the home during the

participant's formative years. Questions stating, "In my house, you never knew when one of the adults might just have enough and start hitting you," and, "In my house you were more likely to lose privileges or get grounded as a punishment than to get hit," were asked in order to determine to what capacity the participants were exposed to violence in the home.

Self-Report Crime Measure

Giever (1995) assessed the existing self-report measures of delinquent behavior and combined different types of questions to develop a self-report measure that would provide a complete and valid assessment of delinquent behavior (i.e. "tobacco use, alcohol consumption, academic cheating in both high school and college, class cutting, suspension or expulsion from school, gambling, and a delinquency involvement scale", p. 30). Additionally, index scores comprised of the different questions were developed in order to create a composite measure, the criminality index, discussed below. The measure was considered to be a state of the art method for collecting information tapping into criminal behavior and attitudes. The measure addresses a variety of delinquent acts committed over the lifespan as it is believed that "delinquency more stable than is often assumed" (Giever, 1995, p. 35). In order to decrease the

time commitment of the participants, the self-report measure was not used in its entirety. Instead a subset of questions, such as the eight questions that were selected to create the criminality index and 34 questions that looked at the individual's capacity for self control, was presented to the participants that addressed the number and frequency of delinquent behavior as well as the attitudes they held towards impulsive and delinquent behaviors.

The criminality index for the current study consists of eight crime questions that range from minor crimes (e.g., "Approximately how many times have you taken things of some value that did not belong to you?") to more serious offenses (e.g., "How many times have you engaged in sex when your partner stated that he/she did not want to ?"). Participants were asked to indicate how many times during their life they have engaged in the behaviors. The response set for these items included, Never, Once or Twice, Several Times, and Often. A copy of the background survey, including the self-report crime measure can be found in Appendix E.

Entitlement Attitudes Scale

The Entitlement Attitudes Scale (EAS; Nadkarni, 1994; Nadkarni, Steil, Malone, & Sagrestano, 2005) is a 17-item scale in which expectations of having one's needs and/or

desires met are addressed. Individuals were asked to rate their level of agreement on a 7-point Likert scale ranging from (1) *Strongly Disagree* to (7) *Strongly Agree*. There are two dimensions of the scale. The self-reliance/self-assurance dimension reflects social psychological representations of a healthy and appropriate sense of entitlement, and the second dimension, narcissistic expectations/self-promotion is more closely associated with clinical representations of entitlement. Using this scale, a greater sense of entitlement is indicated by higher scores. Findings reported by Nadkarni (1994) suggest an internal consistency with a coefficient alpha of .85. In the present study, the coefficient alpha was .795.

Personality Assessment

The Mini-Markers (Saucier, 1994), an adaptation of Goldberg's (1992) Unipolar Big-Five Markers, is a brief measure of the Big-Five personality attributes. The measure consists of 40-items describing different facets of personality for which each participant rated how accurately the item represented themselves on a 9-point Likert scale ranging from (1) *Extremely Inaccurate* to (9) *Extremely Accurate.* The Mini-Markers is highly correlated with the Unipolar Big-Five Measure (r = .92 to .96). In addition, findings suggest adequate internal consistency for a brief

measure with coefficient alpha ranging from .69 to .90 (Saucier, 1994). In the present study, coefficient alphas ranged from .12 to .75; however, it should be noted that only one factor had a coefficient alpha below .62.

Response Bias

The Balanced Inventory of Desired Responding (BIDR; Paulhus, 1991), sixth version, is a brief 40-item measure that assesses the tendency towards responding in a socially desirable manner. The BIDR is comprised of two 20-item subscales: Impression Management (IM) and Self-Deceptive Enhancement (SDE). The first scale measured the individual's desire to present themselves favorably, while the second scale measured the individual's tendency to provide self-agreeable profiles related to over-confidence, but an inaccurate self-regard. Each participant was asked to rate their agreement on a 7-point Likert scale. Correlation coefficients between subscales have been found to range between .04-.05. Additionally, findings suggest adequate internal consistency with the coefficient alpha ranging from .65 to .75 and .75 to .80, for the IM and SDE scales respectively (O'Rourke, 2003). In the present study, the coefficient alpha was .23 and .54 for IM and SDE respectively.

CHAPTER IV

RESULTS

Preliminary Analyses

The first step in the analysis was to compare the athlete and control groups on several of the demographic variables. The two groups did not differ in terms of age $t\ (75) = 1.05$, *ns*, nor did they differ in terms of year in school $t\ (75) = 1.89$, *ns*. A chi square test was used to determine if the difference in reported race between athletes and non-athletes was significant. For the athlete group, 50% of participants reported themselves as White, Non-Hispanic, while 45% identified themselves as Black, and 5% identified themselves as Other (which they defined as bi-racial). For the non-athlete group they identified themselves as 88.6%, 8.6%, and 2.9%, respectively. This difference was statistically significant, $\chi^2\ (2, N = 75) = 13.15$, $p = .001$.

In order to determine whether scores in the athlete group are due to race or status as athletes, responses of White, Non-Hispanic athletes were compared with the responses from those participants who did not identify themselves as White, Non-Hispanic. If the differences are non-significant, then we can more safely assume that athlete-control group differences are not confounded with

race. Independent samples t-tests were utilized to compare the groups of athletes. Responses to each of the criminal behavior questions were totaled to create a Combined Crime factor in order to run the criminality index analysis. On this measure, there were no statistically significant differences between the White, Non-Hispanic (M = 11.15, SD = 1.84) and Black groups (M = 11.33, SD = 2.25), t (36) = -.28, *ns*.

Differences in personality traits were similarly analyzed between groups. Results revealed significant differences on the Emotional Stability (t *(36)* = -2.27, p = .03) scale between the different athletes, in which the White, Non-Hispanic athletes had lower scores (M= -16.25, SD = 8.43), suggesting a greater amount of emotional instability than their Black counterparts (M = -10.44, SD = 7.23). No other significant differences were found on the personality measure.

Both the concussion and post-concussive symptoms variables were dichotomized into categories indicating that they had or had not experienced the symptoms. Two chi-square tests of independence analyses were run to determine if any differences existed between the two groups on the number of concussions experienced and degree of post-concussive symptoms. The White, Non- Hispanic and Black

athletes did not significantly differ in the number of concussions experienced, χ^2 (1, *N* =40) = 5.63, *ns,* nor on the number of post-concussive symptoms, χ^2 (1, *N* =40) = 2.88, *ns*.

Additionally, results of the preliminary analyses did not reveal any significant differences on exposure to violence. White, Non-Hispanic (M = 2.55, SD = 1.67) athletes did not significantly differ from the Black (M = 3.06, SD = 1.73) athletes with regard to disciplinary techniques used in the home, *t* (36) = -.92, *ns.* The question about disciplinary techniques utilized in the participant's homes during their formative years was combined with a question about being hit when one of the adults in the home had "had enough" to create a new variable indicating overall exposure to violence in the home. This variable was created by adding the responses provided by the participants on each question. On this variable, again there were no significant differences across the White, Non-Hispanic (M = 4.00, SD = 2.08) and Black (M = 5.06, SD = 2.53) athletes, *t* (36) = -1.41, *ns*.

The final measure analyzed was entitlement. The White, Non-Hispanic athletes did not report significantly different levels on the Narcissistic Expectation, Self Promotion subscale of the Entitlement Attitudes Scale (M =

31.10; SD = 4.92) than Black athletes (M = 28.61; SD = 6.73, *t* (36) = 1.31, *ns)*. Results were again not significant between the White, Non-Hispanic (M = 37.40, SD = 8.95) and Black (M = 41.39, SD = 7.71) athletes on the Self Reliance, Self- Assurance subscale of the EAS, *t* (36) = -1.46, *ns*.

The candor with which participants responded to the survey was assessed by the Balanced Inventory of Desired Responding. The football players and non-athletes did not differ on the Self-Deceptive Enhancement (Athletes: M = 5.80 SD = 3.87; Control: M = 6.43; 3.29; *t* (73) = -.64, *ns)*, nor on the Impression Management subscales (Athletes: M = 3.88, SD = 3.30; Control: M = 4.37, SD = 3.40; *t* (73) = -.75, *ns)*.

Hypothesis 1

Athletes will report higher levels of criminal behaviors than the non-athletes. The eight dichotomized items that comprised the criminality index and the number of individuals in each group who reported the behavior are shown in Table A2. Admission levels among participants in both groups were consistent with expectations, as well as prior studies consisting of college undergraduates (Giever, 1995), for some behaviors. For example, 60% of the athletes and 51.43% of the non-athletes have gotten into a physical

altercation with intent to harm another individual. Prior studies reported an average of 52.4% for this item. Additionally, the 42.5% of the athletes and 34.29% of the non-athletes in the present study reported to damaging someone else's property on purpose (prior studies found reported rates of 50%). Similar trends were found with reported responses to smoking marijuana and driving a car under the influence of a substance. However, admission levels in the athletes were lower for some of the other criminal behaviors, such as cocaine use (0% of athletes and 17.14% of the non-athletes as compared to 7.6% in prior studies), and taking a car for a ride without the owner's consent (12.5%, 25.71%, and 22.5%, respectively). An independent samples t-test was run in order to determine any differences in reported criminal behavior between the athlete and non-athlete groups. On the Combined Crime factor, non-athlete participants actually reported higher levels of criminal behavior (M = 12.74, SD = 3.17) than their athlete counterparts (M = 11.23, SD = 2.08), t (73) = -2.48, p = .015.

In order to explore the interaction between criminal behavior and status as an athlete, the continuous criminality index was dichotomized with a median split. Those who were under the 50th percentile were placed into a

category for those who engaged in low levels of criminal behavior. A chi square test of independence was used to determine whether assignment to the high and low criminal behavior groups was dependent on being an athlete. The factors were found to be independent; participants were no more or less likely to be in the high crime group if they were an athlete, χ^2 (1, *N* =75) = .195, *ns.* This result in conjunction with the analysis of the continuous criminality index suggests that the initial group differences were a result of a few high scoring individuals in the control group.

Hypothesis 2

Criminal behavior is associated with distinctive personality traits which are present to a higher degree in athletes. This hypothesis was tested by conducting a 2 (Group: Athletes, Control) x 2 (Criminality: High, Low) MANOVA with the five personality traits as dependent measures. There was no main effect of criminality (Wilks' Λ = .86, *F* (5, 67) = 2.23, *ns*) but there was a main effect for the group factor (Wilks' Λ = .81, *F* (5, 67) = 3.21, *p* = .01). Follow-up univariate analyses of variance (ANOVA) revealed significant group differences for Agreeableness (*F* (5, 67) = 5.55, *p* = .02) and Openness (*F* (5, 67) = 10.79, *p* = .002) scales. Athletes were lower on both Agreeableness

and Openness (see Table A3). One reason for dichotomizing the crime factor in the study is that it allowed a test of whether the group membership interacted with criminality. Analyses revealed no significant interaction for criminal behavior and participation in varsity footb all Wilks' Λ = .99, F (5, 67) = .21, *ns*.

Hypothesis 3

Criminal behavior is associated with more reported concussions and loss of consciousness; both are which are also more common among athletes. Because the distribution of responses to questions about concussions was not normally distributed, each variable was coded as a yes/no, dichotomous variable. First, chi-square test of independence examined whether head trauma was dependent upon participation in a varsity level sport. Participating in football was not found to influence the number of reported concussions, χ^2 (1, N =75) = .00, *ns.* Furthermore, report of post-concussive symptoms, such as loss of consciousness or gaps in memory also did not vary across groups (χ^2 (1, N =75) = .001, *ns.* Table A4 illustrates the distribution of athletes and non-athletes on the head trauma factors. The second pair of analyses assessed whether or not experiencing head trauma was associated with

criminality. Neither report of concussions nor post-concussive symptoms were associated with criminality (χ^2 (1, *N* =75) = 1.28, *ns and* χ^2 (1, *N =75*) = 1.36, *ns,* respectively).

Hypothesis 4

Criminal behavior is associated with exposure to violence during an individual's formative years, which will be more common in athletes. This hypothesis was tested by conducting a 2 (Group: Athletes, Control) x 2 (Criminality: High, Low) MANOVA with exposure to violence as dependent measures. There was no main effect of criminality (Wilks' Λ = .94, *F (2, 70)* = 2.19, *ns.*) but there was a main effect for the group factor (Wilks' Λ = .852, *F* (2, 70) = 6.096, *p* = .004). Follow-up univariate analyses of variance (ANOVA) revealed that non-athletes reported lower levels of agreement (M = 1.11; SD = .32) when compared to their athlete counterparts (M = 1.70; SD = 1.09) with regards to experiencing physical violence from the parents in their household, Wilks' Λ = .85, *F* (1, 71) = 8.41, *p* = .005. Furthermore, when asked about methods of discipline, non-athletes reported higher levels of positive punishment techniques (M = 5.17; SD = 1.38), such as loss

of privileges than negative punishment, such as physical discipline when compared to athletes (M = 4.18; SD = 1.66), *F* (1, 71) = 8.60, *p* = .005. The interaction between sport and crime was not significant on either exposure to violence factor, *F* = .663 and .186, *ns*, respectively (See Table A5). When the exposure to physical violence factor was combined with discipline techniques to create on overall exposure to violence factor, there was a significant main effect for participation in football, *F* (1, 71) = 11.92, *p* = .001. Athletes reported a greater overall exposure to violence (M = 4.52, SD = 2.28) than non-athletes (M = 2.94, SD= 1.57).

Hypothesis 5

Criminal behavior is associated with higher levels of entitlement, which will be present at higher levels in athletes. This hypothesis was tested by conducting a 2 (Group: Athletes, Control) x 2 (Criminality: High, Low) MANOVA with entitlement as dependent measures. There was no main effect of criminality (Wilks' Λ = .95, *F* (2, 70) = 1.89, *ns*), but there was a main effect for the group factor (Wilks' Λ = .855, *F* (2, 70) = 5.94, *p* = .004). Follow-up univariate analyses of variance (ANOVA) revealed that participants who play football at the varsity level demonstrated higher levels of entitlement on the

Narcissistic Expectation, Self Promotion subscale of the Entitlement Attitudes Scale (M = 30.175; SD = 5.896) than non-athletes (M = 26.114; SD = 5.845), Wilks' Λ = .86, *F* (1, 71) = 9.489, *p* = .003. There were no differences between the football players and non-athletes on the Self Reliance, Self- Assurance subscale of the EAS, *F* (1, 71) = .13, *ns* (See Table A6). Again, the interaction between participation in varsity football and reported criminal behavior was not significant, Wilks' Λ= .99, *F* (2, 70) = .302, *ns*.

Although no formal hypothesis was made, 34 self control questions were included in the background survey, which were adapted from Giever (1995). This factor was tested by conducting a 2 (Group: Athletes, Control) x 2 (Criminality: High, Low) univariate ANOVA with self-control as the dependent measure. There was no main effect for the group factor (*F* (1, 71) = .073, *ns*, ηp^2= .001), but there was a main effect for criminality (*F* (1, 71) = 8.47, *p* = .005, ηp^2= .107). Participants who reported higher levels of criminal behavior demonstrated lower levels of self control (M = 115.180; SD = 18.177) than those participants who reported low levels of criminal behavior (M = 128.056; SD = 19.352).

CHAPTER V

DISCUSSION

The prevalence of criminal behavior in the NFL was reported by Benedict and Yaeger (1998) who found that 1 out of every 5 players in the league had been charged with a serious crime. Even more concerning was the finding that when male athletes who make up a relatively small fraction of a university population, represent a large portion of the perpetrators of crime (Crosset et al., 1995; Caron et al., 1997). Research into the criminal behavior committed by collegiate and professional athletes, specifically in the sport of football, were revealed to be somewhat limited during the literature review phase of the study. Most studies focused solely on sexually aggressive behaviors exhibited by athletes (Benedict & Yaeger, 1998; Chandler et al., 1999; Crosset et al., 1995; Forbes, Adam-Curtis, Pakalka, & White, 2006; Halteman & Stacy, 1997; Hill & Fischer, 2001). Rowe (1998) suggested that fear of public perception has prevented thorough research into the subject. As a result, hypotheses were generated based upon the literature reviewed of criminal behavior in the general population. The factors selected and measured in this study included personality traits, head trauma, exposure to violence, and entitlement.

The purpose of this study was thus to examine what factors are correlated with collegiate football players committing a violation of societal rules. Participants who play college football at the varsity levels and students who do not participate in any sport at the varsity level were administered a survey consisting of the EAS (Nadkarni, 1994), the Mini-Markers (Saucier, 1994), a self-report crime measure adapted from Giever (1995), and a brief background survey assessing head trauma.

Before a discussion of the findings can begin, the statistically significant difference between the two groups with regard to the reported race of the participants must be addressed as it raises some concern for the study. Results from the chi square test of independence revealed that the difference between the athletes and non-athletes was significant at the $p = .001$ level. As a result, variance that was not controlled for during this study could have impacted the overall findings. However, it should be noted that according to Lapchick, Kamke, and McMechan, (2009), 67% of players in the NFL identify themselves as Black, while the remaining players identify themselves as White, Non-Hispanic (37%), Hispanic (1%), and Asian/Pacific Islander (1%) (p. 16, Table 1).

Preliminary analyses were run to determine if race was a confounding factor within the group of football players who participated in the study. Results of the preliminary analyses revealed that the only factor in the study that was significantly different between the White, Non-Hispanic and Black athletes was the personality trait, Emotional Stability (Neuroticism). The White, Non-Hispanic football players demonstrated scores on this measure that indicate a greater tendency towards experiencing negative emotions (e.g., anger, anxiety), decreased stress tolerance, heightened emotional reactivity, and a greater desire for retaliation. Additionally, these individuals may be more likely to interpret ordinary situations as more threatening than their counterparts (Matthews, Deary, & Whiteman, 2003). Although this factor was statistically different among the races reported by the athlete participants, there were no statistical differences on this trait between the athlete and non-athlete participants in the current study.

Based upon previous research that found student athletes to be among the most violent subpopulation on college campuses (Crosset et al., 1995; Young, 1990), the first assumption of the research study was that the participants from the group of athletes and non-athletes would be drawn from two different populations. In other

words, it was believed that the members of the athlete group would also be members of the high crime group. As mentioned earlier, criminal behavior was dichotomized into two groups: high and low crime, which was determined by whether or not they fell above or below the 50th percentile. Results of this study were not consistent with the findings of previous research. Analyses revealed that the factors were independent of one another; being an athlete did not influence or predict their membership in the high or low crime group. Athletes and non-athletes were equally dispersed between the two crime groups. Due to the results of the BIDR, both the athletes and non-athletes were responding to questions on the study in a similar manner; neither group was trying to present themselves in a favorable or inaccurate fashion.

Based upon research in the general population, specific personality profiles are associated with criminal behavior. Specifically, using the Five Factor Model as measured by the NEO-PI-R, the criminal population is found to score low on the Agreeableness and Conscientiousness scales, average scores on the Openness and Neuroticism scales, and high on the Extraversion scale (Knap, 2000). It was hypothesized that athletes would render a distinct personality profile similar to those that were found to be

associated with criminal behavior. Results of the current study indicated that there was no statistical correlation between personality traits and criminal behavior. Furthermore, there was no reported interaction between participation in collegiate football and membership in the high/low crime group.

A significant main effect for personality and participation in a varsity football was found. Specifically, the football players were found to have lower levels of agreeableness and openness than their non-athlete counterparts. The amount of total variance explained by participation in a sport was 19%. When compared to normative data, the athletes in this study scored lower on both the Openness and Agreeableness domains, while the non-athletes scored similar to the national average. Individuals who score low on Openness tend to have traditional interests and are unwilling or uninteresting in complex and imaginative ideas. They are described to be closed-off and resistant to change. Meanwhile, those who score low on Agreeableness place emphasis on their needs above getting along with others. They are less likely to be concerned for other individual's well-being, and may become suspicious of the motives of others, which results in them being unfriendly and uncooperative. These traits make it

more likely that an individual may participate in criminal behaviors that may violate the rights of others.

Due to the fact that football is a collision sport, a great deal of physical force and aggression is required in order to be successful on the field (Silva, 1983). Although positive aggression, or assertive behavior, occurs within the guidelines of the sport, its increasingly physical contact can have negative consequences on the athletes that participate in the sport. Through continued play, it is likely that the players are going to endure a wide range of physical injuries, including those to the head. Delaney et al. (2002) reported that in a study of football players, 70.4% of football players had reported symptoms consistent with a sports-related concussion. Although there has been a lot of attention raised about the frequency and severity of concussions in collegiate and professional football, and stringent guidelines have been enforced with regard to the steps that must be taken following a concussion, factors such as the impact concussions have upon participation in criminal behavior has not been studied. Therefore, as a result of the high incidence rate, the third hypothesis in the study explored whether or not the athletes who engaged in higher levels of criminal behavior would report higher levels concussions and post-concussive symptoms.

For the reason that concussions can result in neurobehavioral consequences in emotional functioning, specifically, altered social perceptiveness, diminished decision-making skills, and impaired self-control, (Lezak, 1995; Lezak et al., 2004), the relationship between concussions and criminal behavior was believed to be positive. However, findings in this study were not significant; athletes and non-athletes reported the same levels of concussions and post-concussive symptoms, and members of the high crime group were made up of those who had and had not experienced head trauma. More interesting than the occurrence of head traumas being unrelated to membership in the high crime group, was that the athletes and non-athletes were reporting a statistically similar number of concussions, especially since participants who played any sport other than football at the varsity level was excluded from the study. It should be noted, however, that the non-athlete volunteers may have participated in sports during their formative years, but may not have had the skill or desire to play at a more demanding level during college. An important fact to keep in mind when considering these findings is that the data was collected in the Winter of 2009, and it was in the Winter of 2010 that the NCAA proposed stricter guidelines that require an

athlete to receive clearance from a doctor in order to return to the field. So, during the data collection phase of this study, sensitivity to concussions had not yet been raised. The players may not have been able to accurately recognize the symptoms of a sports-related concussion and thus might have under reported the true number they have experienced. Based upon the vast difference between the research on head trauma, which reported that 70.4% of football players had experienced a concussion, and the observed data in the present study, that suggested that 40% of both athletes and non-athletes had experienced a concussion, and 37.5% of athletes and 37.1% of non-athletes have had post-concussive symptoms, it may be possible that a portion of the participants are not accurately identifying concussions. As stated earlier, prior research has found only 23.4% of football players who had suffered a concussion, recognized they had (Delaney et al., 2002).

Prior research has also found that athletes who were exposed to violence and considered their formative years to be abusive were more likely to become perpetrators of abuse during their collegiate years (Chandler et al., 1999). A theory for why individuals who have been exposed to violence are more likely to imitate that behavior as they get older is modeling as discussed in the literature

(Bandura, 1973; Megargee, 2002; Lord & Mahoney, 2007; Terry & Jackson, 1985). As a result, it was hypothesized that athletes, who were reared in an environment with greater exposure to violence, would be more likely to engage in higher levels of criminal behavior. Findings in the study revealed that exposure to violence was not significantly correlated to criminal behavior. Interestingly, there was a significant correlation between exposure to violence and participation in collegiate football. When asked to what extent they agreed with the statement, “In my house, you never knew when one of the adults might just have enough and start hitting you,” non-athletes reported lower levels of agreement on a 6-point Likert scale than the athletes. Additionally, when asked about their level of agreement to the statement, “In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit,” non-athletes reported higher levels of positive punishment techniques than physical discipline than their athlete counterparts. Overall, those participants who were part of the athlete group reported greater levels of violence exposure than those participants who did not play a sport at the collegiate level.

However, it should be noted that with regard to exposure to violence, directionality cannot be determined.

It is possible that the athlete participants had a more difficult/aggressive temperament and thus elicited aggressive responses from their parents. Physical discipline may have been a result of the parent-child relationship and not be a result of parenting techniques. As such, based upon the collected data, there is no way to know in what way exposure to violence played a part in the participant's lives.

Entitlement has been found to be an important factor to assess when studying athletes. Due to the athlete's exceptional performance on the field, peers often praise their accomplishments, while teachers award special privileges (Benedict & Yaeger, 1998). These special accommodations can begin as early as high school and increase in frequency and intensity as the player advances through school and their skills further develop on the playing field. After time, skillful athletes come to believe that they deserve, and are even entitled to, preferential treatment over their non-skillful or non-athlete counterparts (Nicholi, cited in Rowe, 1998). Findings in the current study were consistent with previous research; specifically, research that has found that university football players score higher than other athletes on measures of narcissism (Elman & McKelvie,

2002). Although criminal behavior was not found to be significantly correlated to scores on the EAS, the athletes did produce scores that were significantly higher than the non-athletes on the Narcissistic Expectation/Self Promotion (NESP) subscale. Individuals who score high on the NESP subscale are characterized by a primary focus on one's own interest. Furthermore, they are described to be self-centered and demanding. These qualities are negatively associated with social desirability and communality. Conversely, the Self Reliance/Self-Assurance (SRSA) subscale is characterized with self-esteem, confidence, belief in oneself, and the ability to stand up for oneself (Nadkarni et al., 2005). There was no difference on the SRSA scale between the football players and non-athletes.

Finally, there was a significant relationship between the self-control index and criminality index. As would be expected, those individuals who reported higher levels of criminal behavior also reported lower levels of self control. These individuals reported that they are more interested in living for the moment without considering the potential risks of their impulsive actions or being concerned with long term plans. As stated, there were no differences among the football players and non-athletes on this factor.

Interestingly, when completing the questions that ask about participation in a variety of illegal behaviors, from petty theft through more serious crimes, such as rape, all of the athletes denied physical aggression towards females. Most of the literature that assessed criminal behavior and athletes looked at rape-related crimes, and have found that aggressive sports can act as a catalyst for sexual coercion and aggression (Benedict & Yaeger, 1998; Caron et al., 1997; Crosset et al., 1995; Chandler et al., 1999; Forbes et al., 2006; Hill & Fischer, 2001). Furthermore, when divided into aggressive sports (football, basketball, wrestling, and soccer) and nonaggressive sports or non-athletes, participants in aggressive sports committed more sexual coercion, as well as physical and psychological aggression (Forbes et al., 2006; Yiannakis, 2001). However, in the current study, not one of the football players endorsed engaging in sexually coercive behaviors. Of course it is possible that the football players were responding honestly about their engagement in criminal acts, including that of rape, but it is also possible that the players minimized their involvement in some of the more serious violations of laws and social mores. Abbey, Parkill, and Koss (2005), have found that many factors can alter the accuracy of sexual assault rates when assessed through

self-report, such as the way in which the question is phrased. Question phrasing can alter the lens through which the individual perceives the event as having occurred or could trigger different memories. Therefore, it is possible that the phrasing of the question in the study may have caused participants to respond in an inaccurate manner. It may be accurate to say that the football players in the present study may have intentionally minimized their participation in serious offenses because each of the athletes also denied any experimentation or use of cocaine. In contrast, several of the non-athlete participants in the study endorsed frequent use of cocaine, but only one non-athlete participant reported committing sexual assault once or twice.

In fact, despite self-report being found to be an effective and reliable method of collecting information about criminal behavior, some literature suggests that individuals may be vulnerable to making more than the usual errors when asked to recall and report sensitive behaviors (Crisanti et al., 2005) Additionally, when assessing violent offenders, it has been found that there may be a 10% information loss due to underreporting of criminal behavior (Kroner et al., 2007). In larger samples, 10% may

not have quite as profound of an impact as it would with such a small sample.

Conclusion

None of the factors that were studied were found to be associated with membership in the high crime group. However, there were differences that existed between the athlete and non-athlete participants. Overall, the athletes were found to be more entitled in a negative fashion, less open to experiences that contrast traditional interests, and less agreeable than their non-athlete counterparts. Individuals with a narcissistic sense of entitlement expect special favors and/or privileges, are willing to manipulate others to meet their needs, and have a low need to be approved by society as a whole. Additionally, they have been found to often disregard conventional social mores (Emmons, 1987). They tend to be less concerned with the feelings and rights of others when compared to individuals who do not have a narcissistic sense of entitlement (Nadkarni et al., 2005). Coupled with the fact that the football players in the current study also reported lower levels of positive punishment techniques (i.e. loss of privileges) and higher levels of unprovoked physical aggression from their parents, it is interesting that there

were no significant findings with regard to any of the factors assessed and reported criminal behavior.

Overall, given that the reported levels of participation in criminal behavior was consistent with that of college undergraduates, and the obtained scores on the BIDR were consistent with normative data, it can be assumed that the participants in this study completed the survey in an honest manner. According to normative data, the means of college males on the Self-Deceptive Enhancement and Impression Management subscales are 7.5 and 4.3, respectively. In the present study, the athlete group had means of 5.80 and 3.88, respectively, which suggests that the athletes were not trying to alter their responses in a socially desirable manner.

Limitations

The current study has several noteworthy limitations. First, the sample was small and thus the types of statistical analyses that were utilized were dictated by the number of participants as opposed to the best way to measure the selected variables. A power analysis indicated that in order to use multiple regression, which was originally determined to be the best method of data analysis, a sample of 120 participants would be necessary. Another impact of the small sample, together with the next

limitation, is that the data collected may not accurately represent the population of interest. Generalizability of the results is somewhat limited due to the narrow geographic area of the participants. Given that only one university was willing to participate in the study, geographic factors could have played a role in the findings that may not be applicable to individuals in a different region. Additionally, because the football players were asked by their coach to complete the survey, but not all players on the team complied with the coach's request, the sample of this study may not accurately represent the team at this college. Factors that are unaccounted for could have influenced whether or not the athlete was willing to complete the survey or do so in a fully honest fashion.

Similarly, because of low participation in the non-athlete sample at the participating university, participants from a different university were selected from the psychology subject pool to supplement the data. Due to the fact that these additional non-athlete participants were selected because they were enrolled in an introductory psychology course at the time of data collection, factors that were not controlled for in the design of the study could have had an impact on the findings. The non-athlete participants represent another limitation as they were a

relatively homogenous group of mostly white college men. In order to fully explore the differences that may exist between football players and non-athletes, samples consisting of more racially diverse and better matched groups should be utilized.

Another limitation is regarding the statistical analyses that were utilized. As mentioned, they were selected due to the small sample; however, several hypotheses were tested using non-parametric tests, such as the chi square test of independence. This type of analysis does not allow specific information to be derived from the data.

Finally, the research is also limited by the use of self-report measures. Even though research has found that self-report measures are an effective and reliable method of collecting data with correlations between reported criminal behavior and criminal records being as high as .80 (Hindelang, 1981), there is no way of knowing how truthful the participants were with regard to criminal behavior in the current study.

Intervention Implications

The purpose of the present study was not only to identify the differences that were hypothesized to exist between football players and non-athletes, but also to

determine what factors were most correlated with criminal behavior in order to develop intervention techniques to minimize risk and increase continued participation in sport. However, because none of the factors were found to be related with higher reports of criminal behavior, intervention efforts cannot be developed with the purpose of minimizing risk. However, based upon the findings between the football players and non-athletes on personality, entitlement, and exposure to violence, there are areas that could be addressed in order to decrease potential for interpersonal difficulties.

Specifically, treatment could focus on decreasing the narcissistic sense of entitlement in collegiate football players. Treatment should focus on helping the football players integrate emotional control and social development more effectively. They need to learn how to appropriately manage the attention, praise, and privileges they receive as a result of their exceptional abilities on the field. Furthermore, it would be beneficial for the football players to learn how to compartmentalize their aggressive nature and need to fulfill their desires before considering the feelings, needs, and rights of others.

Another way in which treatment can help the players counteract the years of self-entitlement is by enforcing

more stringent punishments when they violate team or societal laws. By forcing them to face the consequences of their actions, they will better be able to develop emotional control and social appropriateness. It is important that if a violation of another individual's rights occurs, the act as well as the consequences be discussed with the football team as a whole to decrease the possibility that the event is glamorized and thus further encouraged.

Depending on the nature of the intervention, professionals should determine if it would be more or less beneficial to implement the intervention on an individual or group level. For example, using the two interventions mentioned above, a group modality may be best for helping the athletes to integrate the praise and attention in an effective manner that does not challenge social mores. If, however, it is observed that when an intervention focusing on the consequences of unlawful behavior is being conducted, the athletes are verbally or non-verbally reinforcing one another's behaviors, it may be best to use individualized interventions.

Recommendations for Future Research

Over 20 head coaches at Division I universities were contacted to participate in the study; however, only one

was willing to allow his athletes to complete the survey. On any given day a news report about a college athlete who is being investigated for or has been charged with a criminal act can be found. These reports can significantly impact the reputation of the university as well as fundraising efforts (Chandler et al., 1999). Due to the fact that the purpose of this study was to investigate the factors related to players engaging in unlawful behavior, fear of negative exposure may have diminished coach's interests in participating. As a result, the sample size of the current study was smaller than initially anticipated. Future research should thus expand upon the study using a larger as well as a more racially and geographically diverse sample to overcome some of the limitations discussed above.

Additionally, future research could explore the factors of the present study more in depth. It may be beneficial if the factors are measured with various instruments in order to get a more global representation of each factor. If the researcher is able to create a more thorough and lengthy study, in which brevity was not an emphasis, they might be better able to detect differences between the groups if they exist. Furthermore, with no factors being correlated to criminal behavior, a more

thorough criminal reporting measure may also be useful in understanding a relationship, if one does exist and was not observed during this study.

Finally, because statistically significant differences were found with regard to entitlement between the athletes and non-athletes, it may be interesting to explore this factor more thoroughly. If a researcher is interested in doing a long term study, athletes can be studied over a four year period as they progress through college and see if factors, such as entitlement and criminal behavior change over time as they become more established players on the football team. This can also be explored in a shorter period of time by studying football players during their first year playing for the collegiate football team and comparing them to players in their final year on the team. Another way in which entitlement may be explored further within this population is by examining differences that may exist between the players at different positions. Due to the fact that many positions, such a quarterback, wide receiver, and tight end receive more notoriety than others, they may be subject to more years as well as higher levels of praise than some of their teammates. As such, there may be differences in the level of entitlement between positions played on the football team. The relationship

between criminal behavior and player position may prove to be an interesting area to explore.

Criminal behavior in college football is an area that has been researched in a limited capacity. Understanding what makes this group of individuals different from others and what link it has to increased criminal behavior can be extremely beneficial to the athletes who participate in the sport as well as to the sports community as a whole. Coaches from high school up through professional organizations will be better able to understand the athletes and help decrease the chance that they get into legal trouble that prevents them from participating and/or excelling in their intended pursuits.

REFERENCES

Abbey, A., Parkhill, M. R., & Koss, M. P. (2005). The Effects of Frame of Reference on Responses to Question about Sexual Assault Victimization and Perpetration. *Psychology of Women Quarterly, 29,* 364-373.

Akers, R. L., & Sellers, C. S. (2009). *Criminological Theories: Introduction, Evaluation, and Application* (5th ed.). New York, NY: Oxford University Press.

Anderson, S. (1995). *Evaluation of the Impact of Correctional Education Programs on Recidivism*. Columbus, OH: Ohio Department of Rehabilitation and Correction.

Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Benedict, J., & Yaeger, D. (1998). *Pros and Cons: Criminals Who Play in the NFL*. New York, NY: Warner Books Inc.

Benedict, J. & Keteyian, A. (2011). *College Football and Crime*, Retreieved on March 2, 2011 from http://sportsillustrated.cnn.com/2011/writers/the_bonus/02/27/cfb.crime/index.html

Caron, S. L., Halteman, W. A., & Stacy, C. (1997). Athletes and rape: Is there a connection? *Perceptual and Motor Skills*, *85*, 1379- 1393.

Chandler, S. B., Johnson, D. J., & Carroll, P. S. (1999).

Abusive behaviors of college athletes. *College Student Journal, 33*(4), 638-642.

Coon, D. (2008). *NFL Crimes Newsblog: Recent NFL Crimes*. Retrieved on January 15, 2009 at: http://nflcrimes.blogspot.com

Costa, P. T., Jr., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment, 4,* 5-13.

Cox, R. H. (2002). *Sport psychology: Concepts and application* (5th ed.). Boston, MA: WCB/McGraw-Hill.

Crisanti, A. S., Laygo, R., Claypoole, K. H., & Junginger, J. (2005). Accuracy of Self-Reported Arrests Among a Forensic SPMI Population. *Behavioral Sciences and the Law, 23*, 295-305.

Crosset, T. W., Benedict, J. R., & McDonald, M. A. (1995). Male Student-Athletes Reported for Sexual Assault: A Survey of Campus Police Departments and Judicial Affairs Offices. *Journal of Sport and Social Issues, 19*, 126–140.

Delaney, J. S., Lacroix, V. J., Leclerc, S., & Johnston, K. M. (2002). Concussions Among University Football and Soccer Players. *Clinical Journal of Sports Medicine, 12* (6), 331-8.

Ellis Gardner, R., & Janelle, C. M. (2002). Legitimacy judgments of perceived aggression and assertion by contact and non-contact sport participants. *International Journal of Sport Psychology*, *33*(3), 290-306.

Elman, E., & McKelvie, S. J. (2003). Narcissism in football players: Stereotype or reality? *Athletic Insight: The Online Journal of Sports Psychology, 5,* Retreieved on December 21, 2010, from http://www.athleticinsight.com/Vol5Iss1/Narcissism.htm

Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology, 52,* 11-17.

Forbes, G., Adam-Curtis, L., Pakalka, A., & White, K. (2006). Dating aggression, sexual coercion, and aggression-supporting attitudes among college men as a function of participation in aggressive high school sports. *Violence Against Women, 12,* 441-455.

Giever, D. (1995). An Empirical Assessment of the Core Elements of Gottfredson and Hirschi’s General Theory of Crime. *Unpublished Doctoral Dissertation*. Indiana University of Pennsylvania.

Goldberg, L. R. (1992). The development of markers for the

Big-Five factor structure. *Psychological Assessment, 4,* 26-42.

Hill, M. S., & Fischer, A. R. (2001). Does Entitlement Mediate the Link Between Masculinity and Rape-Related Variables? *Journal of Counseling Psychology, 48*(1), 39-50.

Hindelang, M., Hirschi, T., & Weis, J. (1981). *Measuring Delinquency*. Beverly Hills, CA: Sage.

Keeler, L. A. (2007). The differences in sport aggression, life aggression, and life assertion among adult male and female collision, contact and non-contact sport athletes. *Journal of Sport Behavior, 30*(1), 57-76.

Kelly, O. (2008). *Pushing Their Buttons Team Officials Will Ask Anything to Provoke a Potential Prospect To See How He Reacts in Researching Top NFL Draft Picks.* Retrieved on April 20, 2008 from: http://articles.sun-sentinel.com/2008-04-20/sports/0804190241_1_draft-prospects-nfl-teams-hurricanes

Knap, M. A. (2000). The Five Factor Model of Personality and Psychopathy. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 60,* 3570.

Kroner, D. G., Mills, J. F., & Morgan, R. D. (2007).

Underreporting of Crime-Related Content and the Prediction of Criminal Recidivism Among Violent Offenders. *Psychological Services, 4,* 85-95.

Krueger, R. F., Schmutte, P. S., Caspi, A., Moffitt, T. E., Campbell, K, & Silva, P. A. (1994). Personality Traits are Linked to Crime Among Men and Women: Evidence From a Birth Cohort. *Journal of Abnormal Psychology, 103,* 328-338.

Lapchick, R., Kamke, C., & McMechan, D. (2009). *The 2009 Racial and Gender Report Card: National Football League*. Retrieved on December 15, 2010 from: http://www.tidesport.org/RGRC/2009/2009_NFL_RGRC.pdf

Laufer, W. S., Johnson, J. A., & Hogan, R. (1981).Ego Control and Criminal Behavior. *Journal of Personality and Social Psychology, 41*(1), 179-184.

Lemieux, P., McKelvie, S. J., & Stout, D. (2002). Self-reported hostile aggression in contact athletes, no contact athletes, and non-athletes. *The Online Journal of Sports Psychology, 4*(3), 42-56.

Lezak, M. D. (1995). *Neuropsychological Assessment* (3rd ed.). New York, NY: Oxford University Press.

Lezak, M.D., Howieson, D. B., Loring, D. W., Hannay, H. J., & Fischer, J. S. (2004). *Neurological Assessment* (4th ed.). New York, NY: Oxford University Press.

Lord, H. & Mahoney, J. L. (2007). Neighborhood Crime and Self-Care: Risks for Aggression and Lower Academic Performance. *Developmental Psychology, 43*(6), 1321-1333.

Matthews, G., Deary, I. J., & Whiteman, M. C. (2003). *Personality Traits*. England: Cambridge University Press.

Megargee, E. I. (1993). Aggression and violence. In H. Adams and P. Sutker (Eds.), *Comprehensive handbook of psychopathology* (2nd. Ed., pp. 617-644). New York, NY; Plenum.

Megargee, E. I. (1997). Internal inhibitions and controls. In S. R. Briggs, R. Hogan, & W. H. Jones (Eds.), *Handbook of personality psychology* (pp. 581-614). New York, NY: Academic Press.

Megargee, E. I. (2002). Assessing the Risk of Aggression and Violence. In J. N. Butcher (Ed.), *Clinical Personality Assessment: Practical Approaches* (2nd Ed., pp. 435-451). New York, NY: Oxford University Press.

Moser, G. & Uzzell, D. (2003). Environmental Psychology. In T. Millon, M. J. Lerner, & I. B. Weiner (Eds.), *Handbook of Psychology: Personality and Social Psychology* (5th ed.). New York, NY: John Wiley & Sons, Inc.

Nadkarni, L. (1994*). A sense of entitlement: The development of the Entitlement Attitudes Scale* (Doctoral dissertation, Adelphi University, 1994). *Dissertation Abstracts International,* 56-03.

Nadkarni, L., Steil, J. M., Malone, J., & Sagrestano, L. M. (2005). *The sense of entitlement: The development of a self-report scale.* Unpublished Manuscript.

Nixon, H. L. II. (1997). Gender, Sport, and Aggressive Behavior Outside Sport. In A. Yiannakis and M. J. Melnick (Eds.), *Contemporary Issues in Sociology of Sport* (4th Ed., pp. 387-394). Champaign, IL: Human Kinetics.

O'Rourke, N. (2003). Biased Responding, Neuroticism, and Perceived Control Among Older Adults. *Current Research in Social Psychology, 9,* 60-75.

Pasquarelli, Len. (2006). *NFL salary cap rising by $7 million for 2008 season*. Retrieved on January 12, 2009 from: http://sports.espn.go.com/nfl/news/story?id=2689784

Paulhus, D.L. (1991). Measurement and control of response bias. In J.P. Robinson, P.R. Shaver, & L.S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp.17-59). New York, NY: Academic Press.

Rowe, C. J. (1998). Aggression and violence in sports. *Psychiatric Annals., 28*(5), 265-270.

Saucier, G. (1994). Mini-Markers: A Brief version of Goldberg's Unipolar Big-Five Markers. *Journal of Personality Assessment, 63,* 506-516.

Schrotenboer, B., Hobbs, E., & Monteagudo, M. (2009). *Arrests/citations: NFL players, 2000-Present*. Retrieved on January 15, 2009 from: http://www.signonsandiego.com/sports/nfl/arrests.html?appSession=96066268268521&RecordID=&PageID=2&PrevPageID=2&cpipage=1&CPIsortType=asc&CPIorderby=Date

Silva, J. M. (1983). The perceived legitimacy of rule violating behavior in sport. *Journal of Sport Psychology, 5,* 438-448.

Skinner, B. F. (94). 'Superstition' in the pigeon. *Journal of Experimental Psychology, 38,* 168-172.

Snyder, E. E. (1994). Interpretations and Explanations of Deviance Among College Athletes: A Case Study. In A. Yiannakis and M. J. Melnick (Eds.), *Contemporary Issues in Sociology of Sport* (4th Ed., pp. 375-386). Champaign, IL: Human Kinetics.

Stephenson, F. (1996). *Algebra of Aggression:* Retrieved on February 22, 2011 from: http://www.rinr.fsu.edu/spring96/features/algebra

Steurer, S. J., & Smith, L. G. (2003). *Education Reduces Crime: Three-State Recidivism Study*. Centerville, UT: Management & Training Corporation.

Tenenbaum, G., Stewart, E., Singer, R. N., & Duda, J. (1997). Aggression and violence in sport: An ISSP position stand. *The Sport Psychologist, 11,* 1-7.

Terry, P. & Jackson, J. (1985). The determinants and control of violence in sport. *Quest, 37*, 27-37.

The Chronicles of Higher Education. (2009). *Crime on College Campuses*. Retrieved on May 29, 2009 from: http://chronicle.com/stats/crime/.

Tucker, L. W., & Parks, J. B. (2001). Effects of gender and sport type on intercollegiate athlete's perceptions of the legitimacy of aggressive behaviors in sport. *Sociology of Sport Journal, 18*(4), 403-413.

US Department of Education (2009). *Office of Postsecondary Education: Campus Security Analysis, 2002.* Retrieved on May 29, 2009 from: http://ope.ed.gov/security/GetAggregatedData.aspx.

US Department of Justice (2003). *Federal Bureau of Investigation, Uniform Crime Report: Crime in the United States, 2002.* Washington D.C.: USGPO.

Vold, G. B., Bernard, T. J., & Snipes, J. B. (1998).

Theoretical Criminology. Fourth Edition. New York, NY: Oxford University Press.

Yiannakis, A. (2001). Interpretations and Explanations of Deviance Among College Athletes: A Case Study. In A. Yiannakis and M. J. Melnick (Eds.), *Contemporary Issues in Sociology of Sport* (4th Ed., pp. 357-359). Champaign, IL: Human Kinetics.

Young, T. J. (1990). Sensation seeking and self-reported criminality among student-athletes. *Perceptual and Motor Skills*, 70, 959-962.

Zillman, D., Johnson, R. C., & Day, K. D. (1974). Provoked and unprovoked aggressiveness in athletes. *Journal of Research in Personality, 8,* 139-152.

Appendix A

Table A1

Participant Demographics and Method of Survey Completion by Group

	Football Players		Control Group		IUP Control Group	
	n	**%**	***n***	**%**	***n***	**%**
Age						
18	8	20	2	15.38	16	61.54
19	10	25	1	7.69	4	15.38
20	4	10	3	23.08	4	15.38
21	10	25	4	30.77	1	3.85
22	5	12.5	1	7.69	0	0
23	3	7.5	1	7.69	0	0
24	0	0	1	7.69	1	3.85
25 or older	0	0	0	0	0	0
Year in School						
Freshman	11	27.5	3	23.08	17	65.38
Sophomore	10	25	1	7.69	5	19.23
Junior	7	17.5	7	53.85	4	15.38
Senior	6	15	0	0	0	0
5^{th} year Senior	6	15	2	15.38	0	0
Race/Ethnicity						
White	20	50	13	100	21	80.77
Black	18	45	0	0	4	15.38
Latin/Hispanic	0	0	0	0	0	0
Asian	0	0	0	0	1	3.85
Other	2	5	0	0	0	0
Contact Method	Football Coach		E-mail		Subject Pool	
Survey Completion	Computer Lab		Web Survey		Computer Lab	

Table A2

Football Player and Non-Athlete Responses on the Criminality Index

	Football Players		Non-Athletes	
Criminal Behavior	***n***	**%**	***n***	**%**
Approximately how many times have you taken things of some value that did not belong to you?	22	55	22	62.86
How many times have you taken a car for a ride without the owner's permission?	5	12.5	9	25.71
How many times have you damaged someone else's property on purpose?	17	42.5	12	34.29
Not counting fights you may have had with a brother or sister, how many times have you beaten up someone or hurt anybody or purpose?	24	60	18	51.43
How many times have you used marijuana?	17	42.5	21	60
How many times have you used cocaine?	0	0	6	17.14
How many times have you engaged in sex when your partner stated he/she did not want to?	0	0	1	2.86
How many times have you driven under the influence of alcohol or any other drug?	23	57.5	19	54.29

Table A3

Means for Athletes and Non-athletes on Personality Domains

	Mean	Standard Deviation
Athletes – Low Crime		
Extraversion	4.64	10.28
Agreeableness	12.27	7.57
Conscientiousness	13.00	8.73
Emotional Stability	-13.77	9.19
Openness to Experience	28.82	7.65
Athletes – High Crime		
Extraversion	9.83	8.38
Agreeableness	13.67	6.95
Conscientiousness	7.67	8.19
Emotional Stability	-13.39	6.84
Openness to Experience	29.28	10.40
Non-athletes – Low Crime		
Extraversion	7.86	11.94
Agreeableness	16.43	8.54
Conscientiousness	13.29	10.78
Emotional Stability	-14.86	8.36
Openness to Experience	34.93	8.63
Non-athletes – High Crime		
Extraversion	9.19	8.77
Agreeableness	17.67	6.71
Conscientiousness	9.57	8.78
Emotional Stability	-14.05	9.01
Openness to Experience	36.10	6.94

Table A4

Distribution of Athletes and Non-athletes on Head Trauma Factors

	Experienced a Concussion	No Reported Concussion
Athletes	16	24
Non-athletes	14	21
	Loss of Consciousness	**No Loss of Consciousness**
Athletes	15	25
Non-athletes	13	22
	Experienced a Concussion	**No Reported Concussion**
Low Crime	18	21
High Crime	12	24
	Loss of Consciousness	**No Loss of Consciousness**
Low Crime	17	25
High Crime	11	22

Table A5

Means for Athletes and Non-athletes on Exposure to Violence

	Mean	Standard Deviation
Athletes – Low Crime		
In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit.	3.83	1.65
In my house, you never knew when one of the adults might just have enough and start hitting you.	1.50	.99
Athletes – High Crime		
In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit.	4.45	1.65
In my house, you never knew when one of the adults might just have enough and start hitting you.	1.86	1.17
Non-athletes – Low Crime		
In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit.	5.05	1.60
In my house, you never knew when one of the adults might just have enough and start hitting you.	1.10	.30
Non-athletes – High Crime		
In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit.	5.36	1.01
In my house, you never knew when one of the adults might just have enough and start hitting you.	1.58	1.00

Table A6

Means for Athletes and Non-athletes on Entitlement

	Mean	Standard Deviation
Athletes – Low Crime		
Self Reliance, Self-Assurance (SRSA)	39.23	9.87
Narcissistic Expectation, Self Promotion (NESP)	29.36	7.17
Athletes – High Crime		
Self Reliance, Self-Assurance (SRSA)	39.94	6.85
Narcissistic Expectation, Self Promotion (NESP)	31.17	3.78
Non-athletes – Low Crime		
Self Reliance, Self-Assurance (SRSA)	36.93	9.64
Narcissistic Expectation, Self Promotion (NESP)	25.43	4.26
Non-athletes – High Crime		
Self Reliance, Self-Assurance (SRSA)	40.81	7.88
Narcissistic Expectation, Self Promotion (NESP)	26.57	6.76

Appendix B

Mini Markers

Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know o the same sex and of roughly your same age.

Before each trait, please write a number indicating how accurately that trait describes you using the following rating scale:

Inaccurate *?* *Accurate*

Extremely	Very	Moderately	Slightly		Slightly	Moderately	Very	Extremely
1	2	3	4	5	6	7	8	9

__Bashful	__Energetic	__Moody	__Systematic
__Bold	__Envious	__Organized	__Talkative
__Careless	__Extraverted	__Philosophical	__Temperamental
__Cold	__Fretful	__Practical	__Touchy
__Complex	__Harsh	__Quiet	__Uncreative
__Cooperative	__Imaginative	__Relaxed	__Unenvious
__Creative	__Inefficient	__Rude	__Unintellectual
__Deep	__Intellectual	__Shy	__Unsympathetic
__Disorganized	__Jealous	__Sloppy	__Warm
__Efficient	__Kind	__Sympathetic	__Withdrawn

Appendix C

BIDR Version 6- Form 40

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 -------- 2 -------- 3 ------- 4 ------- 5 -------- 6 ------- 7
NOT TRUE SOMEWHAT TRUE VERY TRUE

____ 1. My first impressions of people usually turn out to be right.

____ 2. It would be hard for me to break any of my bad habits.

____ 3. I don't care to know what other people really think of me.

____ 4. I have not always been honest with myself.

____ 5. I always know why I like things.

____ 6 When my emotions are aroused, it biases my thinking.

____ 7. Once I've made up my mind, other people can seldom change my opinion.

____ 8. I am not a safe driver when I exceed the speed limit.

____ 9. I am fully in control of my own fate.

____ 10. It's hard for me to shut off a disturbing thought.

____ 11. I never regret my decisions.

____ 12. I sometimes lose out on things because I can't make up my mind soon enough.

____ 13. The reason I vote is because my vote can make a difference.

____ 14. My parents were not always fair when they punished me.

____ 15. I am a completely rational person.

____ 16. I rarely appreciate criticism.

____ 17. I am very confident of my judgments.

____ 18. I have sometimes doubted my ability as a lover.

1 -------- 2 -------- 3 ------- 4 ------- 5 -------- 6 ------- 7
NOT TRUE SOMEWHAT TRUE VERY TRUE

____ 19. It's all right with me if some people happen to dislike me.

____ 20. I never cover up my mistakes.

____ 21. I don't always know the reasons why I do the things I do.

____ 22. I sometimes tell lies if I have to.

____ 23. There have been occasions when I have taken advantage of someone.

____ 24. I never swear.

____ 25. I sometimes try to get even rather than forgive and forget.

____ 26. I always obey laws, even if I'm unlikely to get caught.

____ 27. I have said something bad about a friend behind his or her back.

____ 28. When I hear people talking privately, I avoid listening.

____ 29. I have received too much change from a salesperson without telling him or her.

____ 30. I always declare everything at customs.

____ 31. When I was young I sometimes stole things.

____ 32. I have never dropped litter on the street.

____ 33. I sometimes drive faster then the speed limit.

____ 34. I never read sexy books or magazines.

____ 35. I have done things that I don't tell other people about.

____ 36. I never take things that don't belong to me.

1 -------- 2 -------- 3 ------- 4 ------- 5 -------- 6 ------- 7
NOT TRUE SOMEWHAT TRUE VERY TRUE

_____ 37. I have taken sick-leave from work or school even though I wasn’t really sick.

_____ 38. I have never damaged a library book or store merchandise without reporting it.

_____ 39. I have some pretty awful habits.

_____ 40. I don’t gossip about other people’s business.

Appendix D

Consent Form

This study involves a web-based experiment designed to understand the background of Division I football players as well as those individuals who do not participate in varsity sports. The study is being conducted by Lauren Swenson of Indiana University of Pennsylvania (IUP), and it has been approved by the IUP Institutional Review Board. No deception is involved, and the study involves no more than minimal risk to participants.

Participation in the study typically takes approximately 30 minutes and is strictly anonymous. Participants will answer a series of questions about their life and their beliefs.

All responses are treated as confidential, and in no way can responses from individual participants or the university for whom they play be identified. All data will be pooled and published in aggregate form only.

Participation is voluntary, refusal to take part in the study involves no penalty, and participants may withdraw from the study at any time. Once the completed survey is submitted, however, the data cannot be withdrawn since the data is anonymous.

Lauren Swenson, M.A.
Doctoral Candidate
Department of Psychology
Indiana University of Pennsylvania
1020 Oakland Avenue
Indiana, PA 15705724-357-4520

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects. If you have any questions, please feel free to contact the IRB at 724-357-7730.

If you are 18 years of age or older, understand the statements above, and freely consent to participate in the study, click on the "I Agree" button to begin the experiment.

☐ Agree

Appendix E

Criminal Questionnaire- Modified from Giever (1995)

What is your age in years?

What is your year in school?

- Freshman
- Sophomore
- Junior
- Senior
- 5th year Senior

What is your race/ethnicity?

- White, Non-Hispanic
- Black
- Latin/Hispanic
- Asian
- Other

Do you play a varsity sport at the college level? **Yes continues to next question. No skips to ****

- Yes
- No

Do you play varsity football? **Yes continues to next question. No skips to end of survey**

- Yes
- No

What year are you in football?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ 5th year senior

What percent of games do you start?

Do you have hopes of playing in the NFL?

- ☐ Yes
- ☐ No

How many times have you been suspended from your sport for any reason?

****What is the highest number of alcoholic drinks you consumed on any single night from last Thursday through Saturday night? (If you didn't drink, please enter 0).

How many times in the last month did you drink to the point that you don't remember some part of the night?

Studies have found that almost everyone breaks some rules and regulations during their lifetime. Some break them regularly, others less often. Below are some examples. Please indicate how often during your LIFETIME you have done the following:

Approximately how many times have you taken things of some value that did not belong to you?

How many times have you taken a car for a ride without the owner’s permission?

How many times have you damaged someone else's property on purpose?

Not counting fights you may have had with a brother or sister, how many times have you beaten up on someone or hurt anybody on purpose?

How many times have you used marijuana?

How many times have you used cocaine?

How many times have you engaged in sex when your partner stated he/she did not want to?

Now I would like to ask a few questions about your parents.

Are your original parents still living together?

- ☐ Yes
- ☐ No

How old were you when your parents stopped living together?

What is the reason your original parents are no longer living together?

1. ☐ Divorce and/or Separation
2. ☐ Death of a Parent
3. ☐ One Parent is Incarcerated
4. ☐ Other _____

Did you live with your mother or father?

1. ☐ Mother
2. ☐ Father

Please choose the option below each statement that indicates to what extent you agree or disagree with each of the following statements.

I seldom pass up an opportunity to have a good time.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I plan my life fairly carefully.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I'm easily drawn away from studying when more exciting or interesting activities come along.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

If a friend calls with an offer to have a good time, I usually drop what I'm doing and go along.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I like it when things happen on the spur of the moment.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I like to take chances.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I usually consider the risks carefully before I take any action.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Rules were made to be broken.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I know some people whose clocks I’d clean if I were given the right opportunity.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

If it feels good, do it.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Don’t postpone until tomorrow a good time that can be had today.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

If desires weren’t meant to be satisfied, we wouldn’t have them.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

If you want to have fun, you have to be willing to take a few chances.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Take your pleasure where and when you can get it.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

You should grab what you can get in this life.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I’m pretty wild.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

My social life is extremely important to me.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Eat, drink, and be merry sums up my philosophy of life.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

When people press the right buttons, I’ve been known to explode.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I sometimes find it exciting to do things for which I might get into trouble.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

If things I do upset people, it’s their problem not mine.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I don’t have a lot of patience.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

When I’m angry with someone, I usually feel more like yelling at them or hurting them than talking to them about why I’m mad.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I try to look out for myself first, even if it makes things difficult for other people

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Most of the people who know me would describe me as very conscientious.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree

Most of the people who know me would describe me as very conscientious.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I get mad pretty easily.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I’m not very sympathetic to other people when they are having problems.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I will try to get the things I want even when I know it’s causing problems for other people.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I often do whatever brings me pleasure here and now, even at the cost of some distant goal.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Excitement and adventure are more important to me than security.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I much prefer doing things that pay off right away rather than in the future.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree

I much prefer doing things that pay off right away rather than in the future.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Often people make me so mad I'd like to hit them.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Sometimes I will take a risk just for the fun of it.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

I often find that I get pretty irritated when things aren't going my way.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

In my house, you never knew when one of the adults might just have enough and start hitting you.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

In my house, you were more likely to lose privileges or get grounded as a punishment than to get hit.

Totally Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Totally Agree
☐	☐	☐	☐	☐	☐

Consider the horizontal line below. Imagine that it ranges from the worst possible parents you can think of to the best possible parents you can think of. Place a mark across the line to indicate where your parent(s) are located between the worst possible and best possible parents.

	Worst										Best
	0	10	20	30	40	50	60	70	80	90	100
My Parents are the:											

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you.

There have been occasions when I felt like smashing things.

1. ☐ True
2. ☐ False

At times I have really insisted on having things my own way.

1. ☐ True
2. ☐ False

I'm always willing to admit it when I make a mistake.

1. ☐ True
2. ☐ False