THE RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS AND COMPETITIVE SPORT ANXIETY IN YOUTH

BY

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THESIS

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ABSTRACT

The purpose of this investigation was to evaluate the relationship between socioeconomic status and competitive sport anxiety in youth athletes. The Multidimensional Anxiety Theory served as the conceptual framework for this study. Participants included 62 youth athletes from an affluent and a middle class socioeconomic background defined by average household income. All participants completed the Competitive State Anxiety Inventory-2 approximately one hour before competing in sport. Significance testing (t-test) was conducted to determine any difference between affluent and middle class athletes in somatic, cognitive A-state anxiety and self-confidence. The results revealed a lack of statistical difference between the two schools for somatic, cognitive A-state anxiety or self-confidence.

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CHAPTER I: INTRODUCTION

The presence of organized youth sport has been documented since the early 20th century, and has since become ubiquitous in contemporary society (Martens, 1990). According to the National Council of Youth Sports, 44 million youth participate in sport in North America alone. Youth sport was first organized as a leisure activity by schools and local businesses as a way to keep young boys out of trouble (Seefeldt & Ewing, 1997). The first sport league for boys was started in New York City in 1903. One of the earliest organizations founded for youth sport in America was "Pop" Warner football founded in 1929 by Glen Warner (Seefeldt & Ewing, 1997). From there, youth sport was available in agencies such as the YMCA, and Boys and Girls clubs. Eight years later little league baseball was developed providing even more opportunities for youth to participate in organized sport. In the mid 1950's, there was a shift from social agencies hosting these opportunities to more adult-organized programs (Seefeldt & Ewing, 1997). Many of these agencies still exist today (Pop Warner Football, YMCA, Little league baseball) to provide numerous positive, recreational activities for youth.

One of the most fundamental elements of sport is that of competition. "Competition is an evaluative process in which an individual or team performance is compared to a specific goal or standard" (Smith, 1983, pp. 1235). It is a contest between individuals and others involving an objective evaluative aspect, defined as a third party evaluation, and a subjective evaluative element, defined as an individual's evaluation. Competition arises whenever at least two parties strive for a goal which cannot be shared or which is desired individually (Karageorghis, 2007). Competition is present in all facets of life, including biology, education, psychology, and sociology. A large part of competition within the social sciences is competition within sport.

Early definitions of competition in sport focused on rewards distributed unequally to participants. A shortcoming of these definitions is that the meaning of reward is different for everyone, so someone might lose an event but still gain rewards that could lead to personal development and improvement (Rolo, 2004). Today, competition in sport is a process that encompasses stages rather than a single event.

Competition within sport is comprised of several different concepts including but not limited to: enjoyment (Scanlan 1986), performance expectancies (Scanlan & Lewthwaite, 1985), performance outcomes (Scanlan & Lewthwaite, 1984), and competitive anxiety (Smith & Cumming, 2007). An optimal sporting experience and the degree of competitiveness are often associated with a manageable level of eustress or anxiety (Csikszentmihalyi, 1991). One population that has been of particular interest when observing competitive anxiety is youth competing in sport.

The first stage in competition is considered the "Cognitive" stage. At this stage youth are still figuring out the basic skills of the sport. Examples include where to place their feet, boundaries of the playing surface, and so forth. From there youth progress to the "Associative" stage. Understanding the fundamentals of the game is finalized and fewer errors and experience allow for more consistent performance. The final stage is where the athlete performs "Autonomously". The skill is well-learned and the athlete does not have to focus on execution. Many athletes flow to and from the different stages throughout their sport careers. Different factors and different people can influence the competitive process at various stages of competitive sport.

There are many benefits to youth that arise from their sport participation. These benefits include, but are not limited to, learning physical skills, gaining an appreciation for fitness, and

obtaining a sense of belonging, self-worth and social competence (Seefeldt 1997). Youth researchers maintain that sport as leisure participation is a positive, necessary developmental aid in a youth's life. Bailey (2006) argues that youth sport participation (or lack thereof) dramatically affects the development of youth in terms of their overall lifestyle, physical, affective, social, and cognitive domains. However, youth sports are not immune to negative aspects. A great deal of emphasis has been put on successfully managing the potentially crippling aspects of sport anxiety.

Competitive sport anxiety is readily present in sport particularly for younger athletes (Wilson, 2008). Competitive sport anxiety is defined as: "the result of an interaction between the individual and the environment ... an emotional response to the demands placed upon the individual by the environment" (Jones, 1995, pp. 451). This is different from other measurable factors of competitive sport such as enjoyment or parents' and coach's' behavior because competitive anxiety is embedded within competition, and sport usually doesn't happen without a certain degree of anxiety. Anxiety is present during competition and it is needed to deter boredom and optimize arousal (Hanin, 2002). There is a point, however, when competitive anxiety symptoms no longer optimize arousal and instead are so great as to impede success.

Symptoms of anxiety can be categorized into Cognitive (thought processes), Somatic (physical), or Behavioral (Karageorghis, 2007) types. Examples of Cognitive anxiety consist of indecision, confusion, and negative thoughts, such as a defeatist attitude, dissatisfaction or avoidance. Somatic anxiety consists of physical responses such as increased blood and heart rate, sweating, and muscle tension. Behavioral anxiety can include patterns such as lethargic movements, introversion, and avoidance of eye contact (Karageorghis, 2007). All of these symptoms can range from mild to severe. The point at which competitive anxiety begins to

decrease performance as a result of more severe symptoms is of particular interest, as well as factors that cause this and those who are most likely to be affected.

One sociological factor that is studied in relation to competitive anxiety in sport is socio-economic status, defined as: "The total economic measure of an individual's or family's economic and social position in relation to others based on economic factors such as income" (National Center for Educational Studies, 2008). However, there is less literature on youth sport as it relates to socioeconomic status, compared to other demographic influences, and even less on the higher end of socioeconomic status as it relates to youth sport participation.

The purpose of this study is to examine the relationship between those higher in socioeconomic status and competitive anxiety in youth athletes. The lack of research on affluent youth athletes is thought to be due to the societal notion that affluent youth do not need to be studied because they have better opportunities and more accessible ways to reach those opportunities. These include a higher discretionary income than other socioeconomic demographics, such as working class or economically lower classes in terms of opportunities to train and compete in sport. This societal view that affluent youth are prosperous and without neglect has recently been debunked. Recent research has shown that affluent youth are plagued by a plethora of problems including higher depression rates, achievement pressure, isolation from parents, and negative feelings such as vulnerability and anxiety (Luthar, 2003 & Levine, 2008). The societal mentality of affluent children being at "low risk" in terms of problems contributes to the reason that there is a lack of knowledge and research with this socioeconomic group. This is why research is needed with affluent youth because literature on competitive sport anxiety is not present in comparison to other economic classes, and the more research that is

conducted within this class as it relates to youth sport participation, the more we will be able to understand potential negative factors and how to remediate them.

CHAPTER II: REVIEW OF RELATED LITERATURE

Competitive Anxiety in Youth Athletics

Competitive anxiety is present in youth sport and a healthy level is considered to be essential for optimal arousal which leads to enhanced performance (Hanin 2002). Too much anxiety can inhibit the youth athlete's ability to positively respond and therefore sport performance will be negatively affected (Wilson 2008). Researchers have been trying to define the cause(s) of negative competitive anxiety throughout youth sports and across the broad range of participants. One way to examine these negative experiences is to investigate positive experiences in competitive sport as well.

One prominent study examined the predictors of youth sport enjoyment by looking at youth male wrestlers (Scanlan, & Lewthwaite, 1986). This study found self-efficacy to be one of the most important predictors of enjoyment in relation to levels of competitive anxiety, but also adult satisfaction with the outcome was important to youth's enjoyment as well.

One study involving youth wrestlers found that; "Competitive trait anxiety, self-esteem, basal state anxiety, and expectancies of self and team performance outcomes were significantly related to stress and anxiety experienced when anticipating competition" (Scanlan, 1989; pg. 35).These findings are important because it was discovered that youth wrestlers who perceived greater parental and coach satisfaction with their season's performance, less maternal pressure, and more positive adult enjoyment, experienced greater enjoyment themselves when compared to their counterparts (Scanlan, 1989). Another study required male and female youth competitors to self-report possible sources of stress and anxiety, and results showed that intense pressure of sport over competitiveness, and negative feedback increased their stress and anxiety (Anshel & Delany, 2001). Along this same vein, Peden (2007) sought to determine sources of competitive

anxiety in youth tennis players and found that when players became increasingly anxious in certain situations due to their surroundings, negative thoughts became increasingly frequent, which dominated their thinking, destroyed their confidence, and damaged their performance (Peden, 2007). These sources of anxiety can often outweigh the positive aspects of competing in sport, such as the positive physical, social, and psychological benefits that sport has on the development of youth. Other sources influencing competitive anxiety include people within the competing athlete's life.

Competitive anxiety has also been studied in terms of the people that elicit anxiety within the competitive sport. Role models, especially parents, were significant motivating factors to initial involvement, and coaches and peers were important sources for continued participation (Barber, 1999). This study found that the transfer of influential figures in the competing youth athlete's life shifted from parents initially to coaches and later to peers. When researchers studied the life span of an athlete it was found that as "Competition becomes more formalized, aspects of the objective situation become more intense" (Smith, 1983; pg. 1237).

Another factor related to variable levels of competitive anxiety is peer evaluation. Bray (2000) looked at youth skiers and found that in the presence of parents and friends, competitive anxiety was elevated only when the skier's competitors were present. This suggested that anxiety was a direct result of a comparative factor with one's competitors. Causes of competitive anxiety were not the only aspect studied; factors influencing competitive anxiety such as demographic characteristics of sex, age, and race constituted another major finding.

Socioeconomic Status and Athletic Competition

Socioeconomic status (SES) has been researched in terms of how it relates to competing in sport. Kelly (2006) examined whether socioeconomic status was associated with being

competitively active versus sedentary in youth. Kelly hypothesized that those from a low SES background would be more sedentary than their affluent counterparts. The results indicated that SES was not a significant factor in determining whether or not the youth were competitively active.

Another study attempted to clarify the relationship between socioeconomic status and physical activity in adolescents (Stalsberg, 2010). The majority of literature has concluded that adolescents with a higher socioeconomic status were more active overall, however almost 42 percent of the studies reviewed showed no or an inverse correlation. Stalsberg criticized the inconsistent measure of both variables, (SES and activity levels) thus negating a single plausible explanation for any observed difference in competition between different socioeconomic statuses.

Multidimensional Competitive Anxiety Theory

State and trait anxiety, while related, are two different aspects of anxiety. Trait anxiety refers to a stable constant level of anxiety and is an intricate part of a youth's experience within competitive sport. Someone who has competitive trait anxiety would experience anxiety when faced with competitive situations across several domains (Tilton, 2008). State anxiety, however, is situation specific and refers to anxiety experienced in an isolated event or contest. Someone who is experiencing state anxiety in a certain sport or activity might not experience that same anxiety in another sport (Tilton, 2008). There are two types of state anxiety. The first, Cognitive A-state Anxiety refers to a momentary anxiety state that consists of worry, or an individual's negative thoughts or concerns about performance. The second, Somatic A-state Anxiety, refers to a momentary anxiety state that consists of a physical reaction that is brought on by increased

tension, usually found in a competitive atmosphere resulting in stress and arousal, that can cause an individual to react in a manner that negatively affects performance (Martens, 1990).

While research maintains that a healthy amount of anxiety is needed to increase stimulation and deter boredom (Hanin 2002), Martens argued that this is only the case with Somatic A-state Anxiety. Increased Cognitive A-state Anxiety results from concentration issues and mental issues such as self-doubt that will negatively impact performance (Martens, 1990). Multidimensional Anxiety Theory states that possible causes of Cognitive A-State Anxiety include negative verbal feedback or expectations from team members, parents, role models or coaches, as well as a lack of readiness for competition, or a previous negative performance (Martens 1990).

Multidimensional Anxiety Theory proposes that Cognitive Anxiety will show a negative linear relationship in relation to performance, while Somatic Anxiety will show an inverted U-shaped relationship that will demonstrate an optimal level of Somatic State Anxiety. If there is too much or too little somatic anxiety, performance will be impaired (Martens 1990). Youth athletes are of particular interest because they are often subjected to higher rates of anxiety due to lack of skill and knowledge, and their inability to cope with stressful competitive situations. This can lead to negative performance outcomes which could lead to other mental and physiological outcomes (Bray, 2000).

Competitive anxiety has been examined qualitatively and compared to other aspects of competition such as self-confidence. The reoccurring theme of positive performance outcomes as it relates to competitive sports was the presence of self-confidence: "Self-confidence is an essential quality for elite athletes to possess in order to protect against potentially debilitating thoughts and feelings experienced in competitive situations" (Hanton 2004; pg. 478). A study

involving martial arts and track and field athletes provided support for this contention. Mieczyslaw sought to determine the most influential aspects of performance by looking at these same two types of athletes. The result was that self-confidence was found to be a large factor in being able to deal with competitive anxiety, and also that the outcome of the contest (win/loss) resulted in differing levels of competitive anxiety (Mieczyslaw, 2011).

Isolating factors and causes of competitive anxiety has helped to identify ways to manage competitive anxiety. Determining ways to manage competitive anxiety in athletes is not a new concept. Examples of ways to manage anxiety include hypnosis (Unestahl, 1986), relaxation (Weinberg 1981), and cognitive restructuring, which is identifying irrational thoughts and dispelling them (Perna, 2003). Another cognitive management technique is positive self-talk, which refers thinking positively about the entire competitive experience from preparation to the activity itself to the outcome (Peden, 2007). As long as people have been competing, the urge to discover new ways to improve the outcome of performance has been present.

Measures of Competitive Sport Anxiety

Anxiety is one of the most commonly measured constructs in sport psychology with over 22 published scales to date to measure it (Ostrow, 1996). A benchmark scale that is one of the most widely-used and well-known anxiety scales is the State-Trait Anxiety Inventory (Spielberger, 1970). This scale, however, only measures anxiety that is not situation specific and the need for measuring anxiety more specifically within a competitive environment was needed.

There are several inventories that measure Cognitive and Somatic anxiety. Liebert (1967) developed the Worry-Emotionality Inventory (WEI), Spielberger et. al, (1977) developed the Test Anxiety Inventory (TAI), and the Cognitive-Somatic Anxiety Questionnaire (CSAQ) was developed by Schwartz, Davidson, and Goldman (1978). The WEI measures anxiety viewed as a

state while the TAI and the CSAQ measure anxiety viewed as a trait. These scales show the presence of Somatic and Cognitive anxiety in both A-state and A-trait, and it is the latter was the focus of this study.

There is a prominent scale used to measure anxiety in sport as it pertains to anxiety seen as a trait. That scale is the Sport Competition Anxiety Test (SCAT). The scale was initially developed by Martens (1974) to provide a reliable and valid measure of competitive A-trait anxiety in sport. Martens used Spielberger's (1973) State-Trait Anxiety Inventory as a model for the SCAT. Today, this scale is recognized as the benchmark for all other scales in terms of structure, reliability and validity for measuring sport trait anxiety. It has been used in thousands of studies since its inception, but few studies have used this scale to examine how socioeconomic status relates to competitive anxiety.

The CSAI-2 is a questionnaire that was generated from the framework of Martens Multidimensional Anxiety Theory. The scale measures both Cognitive and Somatic A-state Anxiety in an athlete. While current research defines Cognitive and Somatic Anxiety as being orthogonal, there is evidence that they often overlap, especially when it comes to performance in competitive activities (Martens, 1990). A-state refers to a momentary state of anxiety as opposed to trait anxiety which is measured by the Sport Competition Anxiety Test (Martens, 1980). Perreault and Marisi (1997) investigated Martens' Multidimensional Theory with elite wheelchair basketball players by asking participants to complete the CSAI-2 prior to tournament games. The results showed that there were no relationships between Cognitive State Anxiety, Somatic State Anxiety, self-confidence, and performance (Perreault 1997).

There are several prominent studies of a number of sport related phenomenon that utilized the CSAI-2. One study applied the CSAI-2 data to determine the phenomenon of

"choking" under pressure by youth hockey players (Jackson, 2006). The CSAI-2 revealed that an athlete was more likely to "choke" when their attention was divided by a duel task than when they were engaged in a single-task.

Another study looked at elite swimmers and utilized the CSAI-2 to try and asses athletic "burnout". Burnout referred to: "Physical or emotional exhaustion, sport devaluation, and reduced athletic accomplishment" (Cox, 2002, p. 630). The results of the study found that any shift in motivation could be a predictor of burnout, and that athletes who were experiencing more competitive anxiety (both Cognitive and Somatic) could be at risk for burnout.

There have also been studies that have downplayed the role of anxiety in competitive environments. Bell and Hardy (2009) sought to determine how important focusing on a task was in relation to anxiety. Bell looked at skilled golfers and put them in a neutral condition and an anxiety-producing condition and measured their focus using the CSAI-2. The researchers found that regardless of the anxiety condition, those that adopted a distal exterior focus (focusing on objects and the environment) rather than having an internal focus (focusing on one's own body movements) performed better (Bell and Hardy, 2009).

An adaptation to the CSAI-2 is the Competitive State Anxiety Inventory for Children (CSAI-2C), derived from Multi-dimensional Theory as well as the original CSAI-2. The subscale scores of the CSAI-2 were modified with language that was suitable for children, and were broken down to include Cognitive Anxiety, Somatic Anxiety, and Self-confidence. A confirmatory factor analyses was conducted and an overall coefficient of .96 demonstrated the validity of the scale, which was consistent with the original CSAI-2 (Stadulis, 2002).

Polman (2007) investigated the nature of the relationship between state anxiety using the CSAI-2C and subjective (race position) and objective (satisfaction) performance outcomes.

Polman found that subjective and objective outcomes were associated with attributions provided by the children for their swimming performance (Polman, 2007). Lizuka (2005) looked at youth table tennis players using Multidimensional Theory in conjunction with the CSAI-2C and found that Cognitive and Somatic State Anxiety had much less of an influence on performance than the characteristics of table tennis and the individual differences of the youth athletes themselves. She concluded that a youth athlete might still be able to have a successful performance outcome despite high levels of Somatic and Cognitive Anxiety if the athletes adapted their personal characteristics to their style of playing (Lizuka, 2005).

Demographic Influences on Competitive Anxiety

Scanlan was one of the first researchers to look for differences in competitive anxiety between men and women. In contrast to Bray's (2000) study, Scanlan found that youth athletes had similar competitive anxiety scores regardless of their sex. Her research suggested that sex was not a factor in the amount of perceived competitive anxiety, but rather that other variables such as age, experience, and success were more influential factors effecting anxiety, and they occurred regardless of sex (Scanlan & Passer, 1978). Smith (1983) investigated competitive trait anxiety differences as a function of age, sex, race, and playing status. Her findings indicated there were no significant differences in competitive trait anxiety due to age or race, and similarly determined there was no difference between male and female athletes.

Another study focusing on age found that youth volleyball players, who were older in their competitive age group, reported less competitive anxiety than their younger peers, suggesting that there was an inverse relationship between competitive anxiety and experience as a function of age (Okazaki, 2011). The older and more experience the competitor had, the less the athlete reported experiencing competitive anxiety.

Smith (1983) found that elite athletes had significantly lower anxiety scores than substitute players and hypothesized that higher status players were less anxious because they were more skilled and accustomed to experiencing success, or were more likely to succeed in their own mind (Smith, 1983).

There have been many prominent studies related specifically to socioeconomic status and anxiety. "The negative relationship between socioeconomic position and psychological distress is one of the most firmly established associations in epidemiology" (Kessler, 1982; pg. 758). Kessler sought to distinguish which variables of socioeconomic status (education, income, occupational status) were directly related to distress. He found that income in men and education in women to be high predictors of stress and anxiety.

A study conducted with university students revealed that between the two of socioeconomic status, someone of a lower socioeconomic status would be more susceptible to negative emotions such as depression and anxiety (Eisenberg, 2010). Eisenberg's study reiterated the point that society needs to be concerned with the mental health issues of youth and young adults especially in low income demographics, largely dismissing any issues with the upper socioeconomic demographic group.

Another study focused on socioeconomic status found that: "Stress and anxiety accounts for much of the difference in outcomes between low-SES and high-SES children" (Bradley, 2002; pg. 382). Bradley stated that there was limited research specifically targeted to children when it comes to development of psychological factors such as anxiety and its relationship to socioeconomic status. This study focused on the negative effects experienced by children from a lower SES family background and compared them to those from a higher SES family. These and other studies have presumed that the higher one's socioeconomic status, the

less likelihood there will be a predisposition to experience problems such as anxiety. What is clearly lacking is research relating to the negative outcomes of those of higher socioeconomic status as it pertains to competitive anxiety.

What constitutes "affluence", or higher socioeconomic status, has also been questioned. Traditionally demographic factors such as education, household income, or occupation have been used to classify different economic classes. Braveman (2005) maintained that different demographic factors interacted with each other, and affected how one could be classified in socioeconomic status. For example, racial and ethnic differences at a specific income level with other factors being the same (education, occupation), raises questions about how accurate comparisons of these individuals are. She recommended utilizing a group-specific approach when labeling socioeconomic level. Taking a similar approach to try and eliminate differential data caused by external factors, this study sought to compare different socioeconomic classes based primarily on household income, while keeping other demographic factors (age, gender, race) the same.

One attempt at an explanation for the lack of research on those in a higher socioeconomic demographic is "selective attention" (Adler, 1999). Adler argued that our society pays greater attention to certain aspects of our environment and overestimates, or in this case, underestimates, the importance of these aspects. She further proposed that a model which implies a linear relationship between socioeconomic status and issues such as anxiety would be oversimplified and incomplete. The reality is that there are likely to be interaction effects and loops between different socioeconomic statuses and problems such as anxiety. While Adler's research sought to expose underlying problems in previous neglected demographics, there still is little research

regarding the relationship between the upper socioeconomic class and anxiety, particularly in athletics.

Focus of the Study

The present study addressed the need for research with this particular group of upper socioeconomic youth athletes. Competitive anxiety has been studied in a variety of ways, examining different groups in relation to motivators, predictors, and outcomes. Competitive anxiety needs to be examined according to socioeconomic status because this is an area of neglect in research pertaining to competitive anxiety, and affluent youth are a neglected subset of research in this area of study. Because affluent youth have potentially higher opportunities for success does not mean that they are immune to problems arising from participation in sport, and reliable data such as a measure of competitive anxiety will help determine the salient contributing factors and might lead to a remedy for such problems. It was hypothesized that there will be a difference in competitive state anxiety among youth athletes of higher socioeconomic status compared to those from a middle class background.

CHAPTER III: METHOD

Participants

The participants of this study were affluent youth athletes from Brookfield High School$_1$. This school was chosen because its attendees' median household income of $119,089 which places it in the top 3% percent in the United States (U.S. Census Bureau, 2012). These students ranged in age from twelve to seventeen years. This school and subjects were chosen because by the above proposed definition, the majority of the students who attended this school came from an affluent family. The comparative school was Carlsburg High school$_1$. This school was chosen because these families median household income was $67,507. The definition used for this study defined middle class as possessing a medium household income of $40,000 for the area (US Census Bureau, 2012) and comprising 30%-80% of all Americans (Beeghley, 2004). All the participants were female youth athletes of the same age group. The 30 participants from Brookfield High School were members of the soccer team, while the 29 female athletes from Carlsburg High School were competing members of the track and field team.

Instrument

The measurement instrument was the Competitive State Anxiety Inventory (Appendix A), which consists of 27 items that assess Cognitive and Somatic Anxiety immediately before competition (Martens, 2003). The goal of this research was to study state competitive anxiety, and the good psychometric measures for the CSA-I2 was the reason it was chosen to be utilized in this study. The test was administered immediately before competition to both the affluent and middle class athletes.

Upon using the SCAT in previous research, it became readily apparent that (Martens et al., 1980) a sport specific A-state scale would also be useful. The result was a modified version of the Spielberger SAI generated by "Identifying 10 items from the 20-item scale that were most sensitive to changes in a competitive sport environment" (Martens, 1990).

The Competitive State Anxiety Inventory (CSAI) was developed to measure state anxiety specifically in competition: The CSAI was modified (Martens, 1980) because a major limitation of the scale conceptualized the construct as one-dimensional in nature. The CSAI-2 (Martens, 1980) became a sport-specific instrument that measured not only cognitive, but also somatic anxiety (Martens, 1990). A glaring criticism of the CSAI-2 was that there was no confirmatory factor analysis (CFA) conducted to establish the validity of the scale. Cox, Martens & Craft (2003) revised the structure of the CSAI-2 by using a calibration sample combined with a second validation sample using CFA, which resulted in a valid fit for devising the Competitive State Anxiety Scale for athletes (CSAI-2R; Cox, 2003). The current form of the CSAI-2 measures Cognitive anxiety, Somatic anxiety, and Self-Confidence.

The CSAI-2 utilized a range of responses to quantify the amount of A-state anxiety a competitive athlete experienced prior to competition. The possible item responses were: "Not at all", "A little", "Pretty much", and "Very much". There were 9 questions per subscale to accurately measure Cognitive Anxiety, Somatic Anxiety, and Self-Confidence; all three sub scores utilized the same response time.

The CSAI-2 measures the Cognitive Anxiety of a competitive athlete immediately before competition. Cognitive Anxiety is often associated with worry, which is a negative concern about oneself. This could have serious consequences in relation to competitive outcome if the

anxiety is high enough. Sample questions to measure cognitive state anxiety in the test include: "I have self-doubts" and "I am concerned about losing".

Somatic Anxiety is also measured within the CSAI-2. Somatic A-state refers to a physical feeling such as tense muscles, shortness of breath or butterflies in the stomach. Somatic questions within the instrument include: "My heart is racing" and "My hands are clammy".

The scale also measures state Self-confidence; examples of questions assessing self-confidence in the test are: "I am confident of coming through under pressure" and "I am confident about performing well". Ultimately, the test results in an assessment of both constructs of Cognitive A-state Anxiety and Self-Confidence, which are inversely related.

Reliability and Validity

To demonstrate the reliability of the scale, its internal consistency was completed for each of the subscales, and all these were found to be high, ranging from .79 to .90. Martens (1990) has tested the validity of the inventory by establishing its concurrent validity with existing valid scales. Two scales used to determine concurrent validity were the SCAT (Martens 1977) and the TAI (Spielberger 1970). The significant correlation between the CSAI-2 and the other scales confirmed the concurrent Validity of the CSAI-2.

Procedure

First, approval from the Illinois Review Board (IRB) was obtained (Appendix B). Before applying to the IRB, initial contact with both schools was made. Athletic Directors and coaches from both schools gave prior approval to conduct research at their respective institutions. The IRB deemed the risk factor of this research to be: "No more than minimal risk" and granted approval. Next, parent and participant permission forms were distributed and collected (Appendix C) and were kept separate from the questionnaire to maintain anonymity of respondents. The goal of the research was to measure competitive A-state Anxiety within youth

athletes. To achieve this, the researcher attempted to measure of the A-state Anxiety by waiting as close as possible to competition. For the affluent school, the CSAI-2 was distributed about 40 minutes prior to competition. For the middle class school, data collection occurred approximately one hour before competition. After a brief introduction, the CSAI-2 questionnaires were distributed amongst the athletes and they were provided with a writing utensil. Instructions pertaining to the inventory were given; These instructions were: “Please do not put any identifying information on your questionnaire, such as name, etc.”, “You do not have to answer any question you do not feel comfortable with” as well as “You can choose to not participate at any time”. However, these directions resulted in several questionnaires turned in that were deemed unusable due to the large number of blank responses. The sample size that was able to be scored included 30 valid instruments from Brookfield High school and 29 from Carlsburg High school. Instructions also included anyone wanting to take the survey in private could, however not a single participant chose this option. After each participant indicated they were finished, the researcher collected the instrument. The CSAI-2 was distributed to each school on consecutive days.

CHAPTER IV: RESULTS

Descriptive Statistics

Participants included 36 female soccer athletes from the higher socioeconomic school, 30 of whom answered enough questions on the inventory to be scored, and those were compared to 32 female track athletes from the middle class school, 29 of whom answered the survey completely. The mean and standard deviation for the three sub scales of the CSAI-2 for the two SES groups are shown in Table 1.

Table 1: Group Mean and Standard Deviation (SD) for CSAI-2 Subscales.

	Comparison Groups			
CSAI-2 Subscale	High Socioeconomic Status		Middle Socioeconomic Status	
	Mean	SD	Mean	SD
Cognitive Anxiety	2.76	0.61	2.56	0.67
Somatic Anxiety	2.05	0.63	2.18	0.72
Self-confidence	2.67	0.81	2.31	0.64

A t-test was used to determine if there was a significant difference between the two groups for each subscale of the CSAI-2. The results, shown in Table 2, indicated there was not a statistical difference between the groups for the Cognitive Anxiety, Somatic Anxiety, and Self-confidence sub scales. (all $p > .05$).

Table 2; Results of the t-test Analysis Comparing High to Middle Class SES groups on the CSAI-2 Subscales.

CSAI-2 Subscale	t-value	df	*p*
Cognitive Anxiety	1.61	58	0.113
Somatic Anxiety	-.76	58	0.448
Self-confidence	1.44	58	0.156

CHAPTER V: DISCUSSION, LIMITATIONS, AND FUTURE RESEARCH

The purpose of this study was to compare the competitive A-state Anxiety of affluent female youth athletes to those of a middle class background. This chapter presents a discussion of the results, as well as possible limitations to the study. The two types of anxiety that were measured were cognitive A-state anxiety and somatic A-state anxiety. Self-confidence was also measured because research has shown it is also an indicator of how much or how little A-state anxiety an athlete is experiencing. The intent of this study was to determine if the level of socioeconomic status (affluent versus middle class) was significantly related to competitive sport anxiety (cognitive A-state and somatic A-state anxiety). Finally, the chapter provides some suggested directions for future research.

Discussion

The findings of the study indicated that there were no significant differences in Cognitive Anxiety, Somatic Anxiety and Self-confidence between affluent and middle class youth female athletes. The affluent school participants were female soccer players, while the middle class participants were female track athletes. The test used to measure these subscales was the Competitive Sport Anxiety Inventory. A t-test was completed to determine the difference between the two schools' subscales, with the result revealing no significance between the groups.

One reason for the finding of a lack of disparity between the data between the two socioeconomic classes could be the complexity of anxiety itself. Research has shown competitive sport anxiety is a multidimensional construct comprised of both cognitive and somatic components (Martens et al., 1990). These components are theorized to be independent of each other, having the ability to negatively affect an athlete with or without the presence of the other. Behavioral or psychological determinants of anxiety could be more of an influence than

socioeconomic status (SES). Behavioral symptoms of competitive anxiety include lethargic movements, inhibited posture and introversion (Karageorghis, 2007). All of these behavioral elements of anxiety have been shown to lead to a negative outcome in sport competition. Perna (2003) reasoned that managing cognitive behavioral stress (CSBSM) would have a profound positive effect on reducing fatigue, cortisol response, and anxiety in athletes. His study assessed the efficacy of CSBSM by using it to aid athletes in managing stress, anxiety and injury. The result was that athletes that were randomly assigned to the CSBSM group experienced much less injury and anxiety throughout their sporting season than the control group.

Levels of anxiety could also be more affected by environmental factors such as peers, coaches, and parental influence on the athlete regardless of socioeconomic status (Anshel & Delany, 2001; Peden, 2007). Research examining these environmental factors has shown the impact these factors have on competitive youth athletes as it relates to competitive anxiety. Anshel & Delany examined why youth athletes were stressed in competition and examined positive and negative appraisals and approaches to coping with competitive anxiety. The highest sources of anxiety included negative spectators, coaches, and teammates' comments (Anshel & Delany, 2001). Peden (2007) sought to identify different ways to cope with performance anxiety and found sensory awareness, positive memories and thought stopping were the most effective techniques in dealing with competitive anxiety from external factors. These techniques were proven to dramatically decrease levels of anxiety in competitive youth tennis players, and Peden advocated that the procedures used to decrease anxiety could be utilized across multiple competitive sports, levels of competition, and age groups (Peden 2007).

Kelly (2006) found similar results to the present study when testing socioeconomic status in relation to competion in sport, showing there was no relationship between socioeconomic

status and whether or not a youth was likely to participate in a sport. The only variables that showed a statistical difference in whether or not a youth would compete in sport were gender and time of year, reaffirming there are other factors that influence competitive anxiety more than socioeconomic status.

Stalsberg (2010) has also recently shown there is a discrepancy in the present literature when looking at SES as an independent variable. A meta-analysis examining sixty-two articles regarding physical activity and SES determined the majority of the articles found there was a statistical difference (an adolescent in a higher SES bracket would be more physically active) but the findings throughout the articles were mixed. Forty-two percent of the articles found no relation between SES and physical activity. There was also found to be an inconsistent use of measurement for variables such as competitive anxiety, which muddled even similar tests and similar results in relation to SES. This relates to the current study because it reinforces the argument that there is not a single explanation (SES) to explain a difference in a construct such as competitive anxiety in youth.

The types of activities that were measured could also have factored into the lack of statistical difference. The middle class athletes competed in track and field, which in high school was a sport without member limits. This could have contributed to anxiety having less of an impact on these athletes overall, in contrast to a team sport such as basketball where the final squad is typically restricted to twelve to fifteen players. The affluent school's participants competed in soccer, a sport that is traditionally considered to be socially acceptable for female youth to participate, resulting in less societal pressure (and therefore less anxiety) to participate in this activity (Cox, 2000). This is in contrast to a typical male-dominated sport such as football

or hockey where there would be less societal acceptance and therefore more competitive anxiety for a female to participate.

In one of the few studies that has been conducted with athletes from affluent families, Eisenburg (2010) examined anxiety between very poor and affluent young adults, and this more pronounced disparity in SES contributed to the statistical difference in anxiety that was found. In the present study, the researcher attempted to match demographic factors between the two schools other than in socioeconomic status, however there were several other environmental factors (i.e. different schools) that may have contributed to not a significant difference between the groups.

The mean Somatic Anxiety subscale score for the affluent school was 20, and for the middle class Somatic Anxiety subscale it was 18. These subscale means rate in the 55^{th} and 50^{th} percentile, respectively. These scores are about average for this age group, however that was not the case with Cognitive Anxiety and Self-confidence. The mean for affluent female athletes was 25 out of 36 on the Cognitive Anxiety subscale, placing them in the upper 70th percentile. The Cognitive Anxiety subscale included questions involving negative thoughts such as self-doubts, concerns about losing, and concentration issues. In contrast, the mean for the middle class athletes was 22, placing them only in the 60th percentile. The t-test confirmed there was not a statistical difference between the means, however, the levels of anxiety were high for both socioeconomic groups. Members of the affluent team also scored higher in Self-confidence (see Table 1), which appears to be contradictory to previous research (Martens, 1990) that demonstrated an inverse relationship between Cognitive Anxiety and Self-confidence subscales. This discrepancy in might again be due to the complexity of anxiety in general. Affluent youth athletes might be nurtured or even predisposed to certain traits and characteristics which would

result in higher self-confidence as a trait and would transcend any A-state anxiety throughout a sport. Another justification for the contradictory results could be attributed to characteristics that make this group affluent: Education and household wealth. This select affluent group might have felt pressure to perform well in competition due to the amount of time, education, and wealth invested in them, resulting in more self-confidence but also mental and physical trait anxiety as well. The proposed argument is that affluent youth have more trait anxiety and self-confidence than middle class youth in general (Levine, 2008), and this is a precursor to possessing more competitive state anxiety in competition.

Ultimately, youth athletes simply might experience the same amount of competitive state anxiety between middle and affluent socioeconomic status and any varying rates of competitive anxiety could be attributed to other sociological or demographic factors besides SES. It appears that SES becomes a factor in anxiety only when the gap is widened between the affluent and the lower socioeconomic classes (Eisenburg, 2010).

Limitations of the Study

The relative sample size could have been too small to uncover a statistical difference. The low sample sizes were likely due to the lack of consistency in return rate between parent and participant consent forms. To compound this issue, there were multiple forms returned that were deemed invalid due to the number of omitted responses for both groups. It is not clear why participants chose not to follow the instrument. Follow-up interviews and observations should have been conducted to determine if level of anxiety immediately before competition had anything to do with not completing the survey.

While every participant was given the option to fill out the questionnaire in private, not a single participant chose to do so. Several participants were talking while filling out the survey

which could have resulted in overt or covert peer pressure to answer a question in a certain way. Other factors that could have influenced the athletes degree of anxiety could be personal, family or environmental issues that were unrelated to socioeconomic status. Since participants were not randomly chosen or assigned to groups, it cannot be presumed that these external issues affected the athletes of each school in the same way.

The two schools that were utilized for this study might have had more in common than they had that was different. While Carlsburg High School was deemed to be middle class when defined by household income, other demographics such as education and job occupation could place Carlsburg High school families closer to affluent or upper middle class rather than lower middle class. On the other hand, Brookfield High School was deemed to be affluent by household income within the Midwest, however expanding the definition throughout the United States, income might place Brookfield High School classified closer to upper middle class than affluent as well. The lack of clear cut delineation of what constitutes "middle class" and "affluent" might have led to less of a distinction of the two schools than what was originally thought.

Future Research Directions

Before completely ruling out the lack of a relationship between socioeconomic status and level of state anxiety in youth athletes, multiple schools should be tested with a broader range of socioeconomic status, a larger sample size, and the inclusion of more youth athletes in a variety of sports. If similar statistical data resulted in further testing, socioeconomic status could be deemed a minor influence on state anxiety in youth athletes. Also, other measures of socioeconomic status besides income (education, occupation) should be studied as they relate to

competitive anxiety, so a more generalized understanding of how socioeconomic status affects competitive anxiety can be reached.

An important would be to measure trait anxiety over the life span of an affluent athlete through each life cycle phase. This could help determine at what point eustress (positive anxiety) becomes distress through the athlete's career and how the negative effects can be negated or minimized. It would be informative to conduct a longitudinal research study throughout an affluent athlete's career to examine how an athlete handles anxiety after they are away from parental influences.

FOOTNOTES

1. School names are Pseudonyms.

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APPENDIX A:

COMPETITIVE STATE ANXIETY INVENTORY

Competitive State Anxiety Inventory-2

Directions: A number of statements that athletes have used to describe their feelings before competition are given below. Read each statement and then circle the appropriate number to the right of the statement to express how you feel right now -- at the moment. There are no right or wrong answers. Do not spend too much time on any one statement, but choose the answer which describes your feeling right now. Please do not leave any question unanswered.

	Not At All	A Little	Pretty Much	Very Much
1. I am concerned about this competition	①	②	③	④
2. I feel nervous	①	②	③	④
3. 1 feel at ease	①	②	③	④
4. I have self doubts	①	②	③	④
5. I feel jittery	①	②	③	④
6. I feel comfortable	①	②	③	④
7. I am concerned that I may not do as well in this competition as I could	①	②	③	④
8. My body feels tense	①	②	③	④
9. I feel self-confident	①	②	③	④
10. I am concerned about losing	①	②	③	④
11. 1 feel tense in my stomach	①	②	③	④
12. 1 feel secure	①	②	③	④
13. I am concerned about performing poorly	①	②	③	④
14. My body feels relaxed	①	②	③	④
15. I'm confident I can meet the challenge	①	②	③	④
16. I'm concerned about performing poorly	①	②	③	④
17. My heart is racing	①	②	③	④
18. I'm confident about performing well	①	②	③	④
19 I'm concerned about reaching my goal	①	②	③	④
20. 1 Feel my stomach sinking	①	②	③	④
21. I feel mentally relaxed	①	②	③	④
22. I m concerned that others will be disappointed with my performance	①	②	③	④
23. My hands are clammy	①	②	③	④
24. I'm confident because I mentally picture myself reaching my goal	①	②	③	④
25. I'm concerned I won't be able to concentrate	①	②	③	④
26. My body feels tight	①	②	③	④
27. I'm confident of coming through under pressure	①	②	③	④

APPENDIX B:

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research
Institutional Review Board
528 East Green Street
Suite 203
Champaign, IL 61820

April 9, 2013

Lynn Morris
Recreation Sport and Tourism
104 Huff Hall
1206 S Fourth St
M/C 582

RE: *The relationship between Socioeconomic Status and Competitive Sport Anxiety in Youth*
IRB Protocol Number: 13650

Dear Dr. Morris:

This letter authorizes the use of human subjects in your project entitled *The relationship between Socioeconomic Status and Competitive Sport Anxiety in Youth*. The University of Illinois at Urbana-Champaign Institutional Review Board (IRB) approved, by expedited review, the protocol as described in your IRB-1 application. The expiration date for IRB Protocol Number 13650, is 04/03/2014. The risk designation applied to your project is *no more than minimal risk*. Certification of approval is available upon request.

Copies of the attached date-stamped consent form(s) must be used in obtaining informed consent. If there is a need to revise or alter the consent form(s), please submit the revised form(s) for IRB review, approval, and date-stamping prior to use.

Under applicable regulations, no changes to procedures involving human subjects may be made without prior IRB review and approval. The regulations also require that you promptly notify the IRB of any problems involving human subjects, including unanticipated side effects, adverse reactions, and any injuries or complications that arise during the project.

If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me or the IRB Office, or visit our Web site at http://www.irb.illinois.edu.

Sincerely,

Ronald A Bank (for Anita Balgopal)

Anita Balgopal, Director, Institutional Review Board

Attachment(s)

c: Brian Depaulo

telephone (217) 333-2670 • *fax* (217) 333-0405 • *email* IRB@illinois.edu

APPENDIX C:

MINOR AND PARENTAL CONSENT FORMS

Minor Consent Form

Title of Research Study:
The Relationship between Socioeconomic Status and Competitive Sport Anxiety in Youth.

Principal Investigator:
Brian De Paulo
Telephone #: (704) 695-5863

What is the research project about?
I would like to ask you a few questions about how you feel before playing competitive sport. Are you excited, nervous about competing, scared, or relaxed?

Who will be in the research study?
Youth sport competitors aged 14-18 years old.

What will I be asked to do?
You will be asked to take one survey that will take approximately 10 minutes to complete.

Where will the research study take place?
This research study will take place at your school.

How can I participate?
You can participate in this study by signing and returning this form as well as asking your parent to sign and return the parent consent form.

What happens if I change my mind about participating?
Participating in this study is your choice. You may stop at any time during the study. No one will be upset with you if you decide not to participate.

Who can answer any questions that I might have later on?
You can talk to Brian De Paulo at (708) 935-8408 if you have more questions at any time before, during or after the study.

If I put my name at the end of this form it means I agree to be in this study. I will be given a copy of this form to keep after I sign it and so will my parents.

Print your name _____

Sign your name_____

Date _____

UNIVERSITY OF ILLINOIS
APPROVED CONSENT
VALID UNTIL

APR - 3 2014

Parental Consent Form

Dear Parent or Guardian,

My name is Brian DePaulo and I am currently working on my Masters thesis in the Department of Recreation, Sport and Tourism under the over sight of Dr. Lynn Barnett-Morris at the University of Illinois. As part of my degree requirements, I am planning an educational research project that will help me to learn more about the relationship between the level of socioeconomic status and anxiety that youth participants might experience prior to competing in their sport. I am planning to collect information about this topic during the spring, 2013 and would like permission to include your child in my study.

Your child will be asked to fill out a questionnaire that will take approximately 10 minutes to complete. The questions will ask about how he or she feels before a sporting event begins, and any question that he or she does not want to answer can be skipped. Your child will not be asked to put his/her name anywhere on the questionnaire and there will be no way to identify his/her answers. All of the questionnaire responses will be assembled together as a group and none will be individually examined. Thus, the results of your child's questionnaire will not affect him or her in any way and there is risk involved.

I am requesting permission from you to allow your child to participate in my research study by anonymously completing my questionnaire. Please understand that his/her participation is entirely voluntary. If you have any questions or concerns, please feel free to contact me by phone at (708) 935-8408 or email at depaulo2@illinois.edu. If you have any questions about your child's rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at (217) 333-2670 (collect calls will be accepted if you identify yourself as a research participant) or via email at irb@illinois.edu.

I hope that you will agree to allow your child to anonymously complete my short questionnaire to help me with my degree program. Please detach and return the form below. Thank you.

Brian De Paulo
Researcher/Investigator

As the parent or guardian of _____,
(please write your child's name)

☐ **I grant my permission for Brian De Paulo to use my child's questionnaire responses in his research project. I fully understand that the information will be kept completely confidential, and will be used only for the purposes of this research study.**

☐ **I do not grant my permission for Brian De Paulo to use my child's questionnaire responses in his research project.**

Signature of Parent/Guardian: _____ **Date:** _____

UNIVERSITY OF ILLINOIS
APPROVED CONSENT
VALID UNTIL

APR - 3 2014