2011

No medications necessary : a quantitative study examining the relationship between self esteem and sports participation of high school girls

Tara Kay Monzo
Smith College

Tara Monzo

No Medications Necessary:
A Quantitative Study Examining the
Relationship Between Self Esteem
and Sports Participation
of High School Girls

ABSTRACT

This study was undertaken to examine whether participating in sports has any relationship to one's level of self esteem. A lot of research has been done on the potential positive effects of participating in sports. Research has also examined the effects of self esteem and the impact that it can have on both internal (such as mental health) and external (such as relationships with others) factors.

The study was conducted in a predominately white, middle class, New England neighborhood in a public high school setting. This study examined 52, 9^{th}-12^{th} grade girls who completed the Rosenberg Self Esteem Inventory during their school lunch. Approximately half of the total participants played sports while the other participants reported that they were not involved with sports. The sample had a variety of grade levels as well as a variety of years spent playing sports.

The major findings were that the students who participated in sports did have a higher self esteem score than the participants who did not play sports; these findings were not statistically significant. When comparing the self esteem of the total 9^{th} graders to the total12^{th} graders, no significant difference in self esteem was found.

Future studies should be done longitudinally and examine a more culturally diverse population. It would also be important to have a larger sample population in order to hopefully produce statistically significant results.

NO MEDICATIONS NECESSARY:

A QUANTITATIVE STUDY EXAMINING THE RELATIONSHIP BETWEEN SELF ESTEEM AND SPORTS PARTICIPATION OF HIGH SCHOOL GIRLS

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

Tara Monzo

Smith College School for Social Work
Northampton, Massachusetts 01063

2011

Acknowledgements

I want to thank Dr. Vito Perrone for welcoming me into Easthampton High School to conduct my research and his support with recruiting participants.

I am thankful to Antonio's Pizza for their extremely generous donation of many slices of pizza; that was a tremendous help with my data collection process!

Most important, my deepest appreciation to my mom, for her continued love, faith and support with everything I attempt in my life.

Table of Contents

Chapter I

INTRODUCTION

It is not uncommon for teens to struggle in school. Teens may struggle with grades, making friends, getting along with teachers, feeling confident during class presentations, or a host of other problems. One contributing factor to these problems may be a difficulty with self esteem.

Self esteem is, "a hypothetical construct that is quantified…it is the overall affective evaluation of one's own worth, value, or importance" (Robinson, Shaver, Wrightsman, 1991, p. 115). Essentially, self esteem is a concept that believes how one perceives themselves will effect how they perceive and treat others.

Students with higher self esteem have been known to have better grades, more friends and just overall feel more comfortable "in their own skin" (Baydala, et. al., 2009). Higher self esteem has shown to be related to lower rates of depression and other mental health problems, an also related to an increase in physiological health (Babiss & Gangwisch, 2009; Ford & Collins, 2010). Students with lower self esteem are known to have higher rates of depression and other mental health problems compared to their peers with higher self esteem (Steiner, McQuivey, Pavelski, Pitts, Kraemer, 2000). They also may struggle to make friends or with getting good grades (Perlman, et. al., 2010; Taylor & Turek, 2010; Ward, 2010).

Self esteem can be quantitatively measured with proven reliable and valid measures (Griffiths, et. al., 1999) (Silber & Tippett, 1965) (Rosenberg, 1965). One such measure is the

Rosenberg Self Esteem Inventory (Rosenberg, 1965). This measure can be given over time to identify changes in self esteem or it can be given one time for a quick snap shot of self esteem at a given moment. This inventory has been used many times and has been shown to effectively provide a quantitative measure of self esteem.

The purpose of this study is to examine self esteem among high school girls in a small, suburban high school and compare the self esteem self-rating of girls who play sports compared to girls who do not play sports. This will provide us with a study showing whether sports participation has any relationship to self esteem. This study will examine whether sports participation has any relationship to the self esteem of teenagers. This study will be limited because it will only examine high school girls and it is not a longitudinal study so no changes in self esteem are able to be observed.

Chapter II

LITERATURE REVIEW

The purpose of this study is to identify if any relationship exists between participating in sports and the level of self esteem at a small, suburban, public high school. This study used the Rosenberg Self Esteem Inventory (Rosenberg, 1965) to serve as a quantitative measure of self esteem of high school females. This literature review will provide an overview and definition of self esteem and briefly touch on sports history. It will then explore the following related topics: the relationship between self esteem and being female and how self esteem and mental health are intertwined. The review will also examine the relationship between sports and mental health, followed by self esteem and physiology. It will then finish up with looking at the potential positive benefits and risks of sports participation.

Self Esteem- Definition and Overview

Over history, the definition of "self esteem" has evolved. It was first touched on in the late 1800s when self esteem was thought to be a ratio that was based on "dividing one's successes in areas of life importance to a given individual by the failures in them or one's 'success / pretensions'" (James, 1983, para. 2). That definition of self esteem was not examined again until the early 1960's by Nathaniel Branden. Branden noticed that self esteem appeared to be the driving force behind motivation however there were no concrete definitions and he found the idea very hard for him to grasp. Branden then did some research and first defined self esteem in the 1960s as, " the experience of being competent to cope with the basic challenges of life and

being worthy of happiness" (Branden, 1969, p. 1). Several decades later, Branden revised his definition of self esteem; his current definition of self esteem is having a, "confidence in our ability to think and to cope with the basic challenges of life. Confidence in our right to be happy, the feeling of being worthy, deserving, entitled to assert our needs and wants" (Branden, 1992, p. 4). Branden is among a handful of authors who have defined self esteem in similar ways. Robinson, Shaver and Wrightsman defined self esteem as a construct that is able to be a quantifiable measure of one's worth, value and importance (1991). All of these definitions conceptualize self esteem in a way that attempt to make it quantifiable. Morris Rosenberg is a man who took the definitions, created his own and then created a way of measuring self esteem.

Rosenberg has defined self esteem as being an attitude about oneself that is based on many dimensions. Rosenberg believes that our self esteem is a compilation of what an individual physically sees when looking at him/herself, how favorably an individual innately feels about him/herself, and the importance the individual places on others' opinions of him/herself (Rosenberg, 1965). Essentially, our self esteem is our internal feelings about ourselves as a result of both internal and external thoughts and events.

Creating a valid and reliable measure of self esteem was an important contribution from Rosenberg (1965) because of the implications that high or low self esteem can have. Low self esteem has been shown to correlate with some negative problems, such as higher depression rates and more psychosomatic symptoms than found in people who have rated themselves as having high self esteem (Rosenberg, 1965). Higher self esteem has been shown to correlate with an increase in mental and physical health. It also correlates with overall psychological well-being.

The Rosenberg self esteem scale has proven to be a popular scale used to measure self esteem (Rosenberg, 1965). This measure of self esteem has proven its reliability and validity throughout being tested in multiple studies (Griffiths, et. al., 1999; Rosenberg, 1965; Silber & Tippett, 1965). Another widely known measure of self esteem is the Coopersmith self esteem inventory. The Coopersmith inventory has been shown to possess less validity than the Rosenberg scale in a study comparing the two (Griffiths, et. al., 1999). This study found that the Rosenberg measure had a greater level of validity than the Coopersmith measure. The Griffiths et. al. study examined a sample of females and males who had anorexia nervosa, bulimia nervosa or an eating disorder not otherwise specified. The study included male and female participants however, the study was only comprised of 117 participants who were on an inpatient disordered eating research clinic so the population was very limited. However, in this study it was found that the Rosenberg self esteem scale had, "sounder construct and convergence validity than the Coopersmith SEI" (p. 4).

When Rosenberg was designing this tool, he wanted to create a measurement tool that could be administered to a large population within a relatively short amount of time. The Rosenberg self esteem scale is easy to use and can be administered quickly. Rosenberg also sought out a tool that would be unidimensional and allow participants' self esteem to be ranked along a scale from very low to very high (Rosenberg, 1965). The validity of this scale was unable to be determined simply from using a specific group because no known group with a definitive relationship between self esteem and any "specific group" exists. Instead the validity had to be tested through seeing if the scores were associated with, "other data in a theoretically meaningful way." (p.18) Through these theoretical comparison tests it was found that the Rosenberg self esteem scale was indeed internally valid.

The reliability of the Rosenberg self esteem scale was determined through the scale having high reproducibility. When the scale was tested through a study by Earle Silber and Jean Tippett, they found that the scale had a test-retest reliability of 0.85 (Silber & Tippett, 1965). The Rosenberg self esteem scale has been thoroughly tested and proven to be an accurate measure of self esteem.

Sports History

School sports first began to be affiliated with schools as a way of keeping young school boys out of trouble during the after school hours. Sports were seen as a means of keeping boys on the "straight and narrow path" (Taylor & Turek, 2010, p. 2). Thought was never given to the idea of girls participating in athletics until late in the 19th century. That was around the time women began to compete at the college level and the percent of younger girls playing sports also began to rise (2010). In the U.S. there are approximately 30 million high school students who participate in sports (Goldberg & Chandler, 1992). During the 2005-2006 school year around 41% of total participants in high school sports were female, which is nearly 3 million girls participating in their school sports (National Federation of State High School Associations, 2006). Now the focus is shifting; the view used to be that sports kept boys from having idle hands that would get them into trouble, now researchers are looking at how sports could benefit girls.

Self Esteem & Females

Females who participate in sports generally have higher self esteem than females who do not. A study that involved nearly 2,000 high school, African- American, females compared the girls who played sports to girls who did not play sports. The researchers examined high schools in both rural and urban communities (Taylor & Turek, 2010). A rural community was defined as

having a population between 2,500- 9,999 and not located directly next to a town with the same population, while an urban community was defined as a city with over 500,000 people. The study used several 4-point Likert scales to rank the girls on variables regarding their school adjustment, self esteem and drug and alcohol use. Surveys were administered to the high school girls, and parents completed surveys about their child as well. The study found that the girls who played high school sports had higher scores regarding their attitudes towards teachers, the school, and better school performance than the girls who did not play high school sports. In terms of self esteem, the girls who played sports had higher scores for social acceptance and social competence than the group of girls who did not play sports. The girls had nearly equal scores regarding social confidence. The study demonstrated that level of school adjustment and most factors of self esteem were higher in girls who played sports (2010).

The study did not discuss the economics of the two different samples so it unknown whether the urban and rural communities were similar with their levels of wealth or if the study produced these results across differing financial situations and resource abundance. However the results show that girls who play sports have higher social confidence, school adjustment, and self esteem than girls who do not play sports and the results are the seen across urban and rural African American communities.

Self Esteem & Mental Health

Researchers have found that having high self esteem inversely correlates to jealousy behaviors. In a study of over 200 male and female, undergraduate college students, it was found that the students with higher self esteem tended to have fewer jealous thoughts and behaviors, while students with lower self esteem were more apt to exhibit jealous attitudes and behaviors (Zhao & Si, 2009). Males in that study showed significantly less jealousy than the females.

During the study, participants' self esteem was measured with the Adolescent Self Esteem scale (Rosenberg, 1965) and Implicit Association Test (Greenwald, McGhee, Schwartz, 1998). Jealousy was measured using the Bringle Self Report Jealousy scale (Bringle, Roach, Andier, Evenbeck, 1979). The Implicit Association Test is a measure of implicit self esteem. Self esteem is generally thought of as explicit; a global evaluation of self, something more external and able to be rationalized (Buhrmester, Blanton, & Swann, 2011). Implicit self esteem is the concept that there is another component to self esteem, a part of self esteem that is more internalized, automatic, and preconscious (Epstein, 2006). Self esteem is a mix of both implicit self esteem and explicit self esteem and both contribute to the overall evaluation that one holds of themselves.

In the study it was found that there were no major differences in participants' scores on the implicit and explicit self esteem of the male and female participants (Zhao & Si, 2009). At the same time, explicit self esteem appeared to be negatively related to participants' scores on the jealousy rating scale. As a result of this inverse relationship, the study concluded that it would be important to strengthen the participants' explicit self esteem as a means of decreasing negative jealousy behaviors.

Sport & Mental Health

Not only are sports good for socializing (Ward, 2010), exercise may also relate to an increase in mental health as well (Perlman, et. al., 2010). In a study that was conducted on 96 military veterans at Ann Arbor Healthcare system, the researchers discovered that participants made significant improvements in the following six domains: emotional role functioning, social role functioning, mental health, physical role functioning, bodily pain, and physical health (Perlman, et. al., 2010). The participants in the study had a wide variety of psychiatric disorders.

The disorders ranged from depression to anxiety to post traumatic stress as well as many others. One thing all participants had in common was that none of them reported to be actively using alcohol or other substances during the study. The study was conducted over fifteen weeks. During those weeks, participants were taught Tai Chi and Chi Gung to work on stress management through the use of visual imagery, mindfulness, muscle relaxation, and abdominal breathing. Participants were also taught important physical health behaviors like physical exercise and routine sleep schedules. While learning these skills participants attended group therapy discussions to talk about positive changes they were making. Lastly, participants did some behavioral activation processes that would allow the participants to continue what they had learned outside of the study (2010).

The researchers in the Ann Arbor Healthcare study administered the Heath Survey- Short Form (SF-36; Ware, Snow, Kosinski, & Gandek, 1993), at the beginning, midway through, and at the end of treatment. The Health Survey- Short Form measured the six domains discussed in the aforementioned paragraph. It is interesting to note that all participants made significant gains in each of the domains that were studied. This study shows how extreme of a result exercise can have on the body.

Participating in sports may also affect symptoms of depression. Depression is a mental health condition that is not always very responsive to psychiatric medicines. In a book by Mary Burke, she discussed how American society attempts to eliminate depression in children through the use of psychiatric medication. Burke contended that medication is not the solution and that the selective serotonin reuptake inhibitors (SSRI's) that are often prescribed to children for depression results in children being unable to express their true distress (Burke, 2006).

Because children's brains are still growing and developing, a natural option for preventing depression that would cause less of an impact on a child's growing body and mind would be sports participation. A study on sports participation and depression rates have shown that the children who participated in a greater number of sports had lower levels of depression and suicidal ideation (Babiss & Gangwisch, 2009). Babiss and Gangwisch found that as the amount of time spent participating in sports increased the odds of getting depression decreased by 25% (2009). This study shows the importance of encouraging adolescents to play sports and to insure that they are provided with plenty of opportunities to participate in a variety of sports. Participating in many sports is a healthy way to lower the incidence of depression without altering a developing child's mind or body through the use of psychiatric medicines.

Another study supported Babiss and Gangwisch's findings on a more broad level. This study, done in California, consisted of giving the Juvenile Wellness and Health Inventory (JWHS-76, Steiner, Pavelski, Pitts, McQuivey, 1998) to over 1,500 students at two different high schools within the same district. This study found that sports participation was related with self reported mental health benefits (Steiner, McQuivey, Pavelski, Pitts, Kraemer, 2000). So while the study by Babiss pointed to sports participation related to a decrease in being diagnosed with depression later in ones life (2009), the study by Steiner, et. al. points to the relationship between sports participation and an increase in overall mental health (2000). Sports participation may cause a student athlete to view themselves in a more positive way, which in turn may contribute to the higher levels of mental health benefits that the athletes are self reporting.

Self Esteem & Physiology

Low self esteem does not only correlate with observable behavioral patterns one's level of self esteem may also have a physiological effect. In a study of 78 undergraduates who self

reported to be single, were each led to believe they were being invited to participate in an online dating study. Each participant was given a picture and told to read a biography of the person they would be "chatting" with. After "chatting" for a little while, the researchers informed half of the participants that the other person had "chosen to not continue with the study" and informed the other half of participants that the other person had "become extremely ill and was unable to continue on with the study". Salivary cortisol samples were collected at 20 minute intervals during the two hour study (Ford & Collins, 2010). The researchers also administered the Rosenberg self esteem inventory to each participant at the start of the experiment (Rosenberg, 1965). The researchers found that individuals who rated themselves as having lower self esteem also had higher cortisol reactivity after being told the other "participant" did not want to continue with the study. Cortisol is a stress hormone. This study demonstrated that when someone with lower self esteem at baseline then experiences a rejection (in this case, it was the other "person" who chose to not continue with the study for either of the two aforementioned reasons) participants with lower self esteem experienced a greater physiological stress reaction (more cortisol reactivity) than the participants who rated themselves as having higher self esteem.

An increase in cortisol activity (as exhibited in the participants who had lower self esteem) is usually a sign of the physiological reaction during a physical threat (Ford & Collins, 2010). Increased cortisol levels during a physical threat tend to indicate that the body is going into "self protection" mode; essentially fight or flight. During a social threat that causes an increase in cortisol, participants are more likely to act negatively towards themselves and have more internal "put down" thoughts directed towards themselves (Ford & Collins, 2010). In the participants who rated themselves as having higher self esteem, less cortisol reactivity was observed and, as a result, fewer self deprecating thoughts were self reported by those

participants. This study clearly exemplifies how increased self esteem potentially could correlate with an increase in positive thoughts.

In another study that examined the benefits of high self esteem on physiology and behaviors, Alex Lynch and Peter Clark (1985) examined how self esteem correlated with better performance on a test. In their study they found, “that self-esteem was significantly related to performance, independently of the covarying effect of intelligence” (p. 955). This study, when considered with the results from Ford and Collins study, clearly shows how having higher self esteem, related to having less cortisol activity, which may allow students to focus better and to score higher on a test than students with lower self esteem. It is interesting to note that within this study, students who rated themselves with higher self esteem did not rate themselves with more confidence and did not predict that they would do better than the students with lower self esteem. That interesting finding should be studied more closely to see why the students with higher self esteem ultimately scored higher on the test even though they and the low self esteem group both had similar, low predictions of how they were going to do.

Just as low self esteem can cause the physiological reaction of increased cortisol activity (Ford & Collins, 2010), high self esteem can also have physiological effects. In a study published in the Personality and Social Psychology Review, it was found that participants who had increased stimulation in their cardiac vagus nerve self reported to have higher self esteem (Martens, Greenberg & Allen, 2008). The vagus nerve plays a role in decreasing physiological stress responses, such as an increase in norepinephrine and cortisol. Stress hormones can, over time, cause problems with auto-immune diseases and cardiovascular problems (2008).

Another study has also shown that an increase in vagus nerve stimulation may potentially be able to decrease depression in people with Major Depressive Disorder (Grimm, Bajbouj,

2010). It is currently unknown exactly why the increased stimulation of the vagus nerve causes a decrease in depressive symptoms, however similar results have been repeatedly shown throughout multiple studies (2010).

Potential Positive Effects of Sports Participation

There are many positive effects of sports participation. Sports can be a way for girls to make friends and form relationships with their teammates (Ward, 2010). Sports may play a role in self esteem and school adjustment (Taylor & Turek, 2010). Athletic activity during adolescence has been shown to correlate with an increase in the amount of positive self talk later in life (Dodge & Lambert, 2009). Sports participation has also been shown to correlate with a decrease in depression and suicidal ideation (Babiss & Gangwisch, 2009). A positive correlation between participating in sports and academic grades has also been found (Baydala, et. al., 2009).

In researching self esteem, researchers conducting longitudinal studies have shown that playing high school sports may correlate with having more positive thoughts about oneself later in life. In a longitudinal study that was conducted by Tonya Dodge and Sharon Lambert (2009), they found that playing a team sport in adolescence resulted in more positive self beliefs than the adolescents who did not play a team sport. The same group of participants was followed up again six years later and it was found that the results remained the same; the group who played sports in high school and continued to be active still had a higher level of positive self beliefs and rated their subjective health higher on a scale than the group that stopped being active. The group that had stopped being active had lower levels of positive self beliefs and rated their subjected health lower on the scale. It would have been interesting if these studies had used the Rosenberg self esteem scale over a longer span of time to see if the participants with higher self esteem rate themselves as having higher self esteem later in their lives as well.

School sports also provide a way for girls to meet and form relationships with their peers (Ward, 2010). A study that was conducted in Cyprus in 2005 examined the possibility of sports serving as the catalyst for friendships between Turkish Cypriot and Greek Cypriot youth (Lyras, 2007). The study showed that inter-ethnic relationships were made by more than half of the participants attending the summer camp. These two groups of youth have a longstanding history of not getting along with one another. The summer camp focused largely on the youth participating in team sports and exercises that required collaboration between the groups. The participants in the study who attended a six day summer camp were either from the Turkish Cypriot or the Greek Cypriot community. The participants reported feeling a sense of agency towards peace and co-existence with one another.

In addition to the six day summer camp that the children attended, the instructors of the camp, both Turkish and Greek Cypriots, attended a training for two months and held two local meetings for the parents of the children who were going to be participating (2007). This study opens the possibility that perhaps the amicable results displayed in the Cypriot youth may potentially be transferable across cultures to the benefit of America's youth. The use of sports and team building intensive exercises do not even need to occur over a long period of time. This study involved the children participants being together for just six days. School sports teams generally meet for a few months at a time, so if the Cypriot youth were able to build such strong ties and overcome longstanding cultural barriers in just six days, perhaps a school sports team that meets on such a regular basis would be able to set the groundwork for athletes to establish some very strong relationships with their peers. Those relationships could in turn become transferable outside of the team to inside of the classroom as well. Strengthening relationships

and creating a sense of belonging has the potential to help contribute to an increase in self esteem.

Another study supporting the positive effects of sports participation on relationships examined the social relationships of female, college athletes (Elizabeth Ward, 2010). Ward's study examined 66 college female participants who were given a survey that gathered data about empathy, social responsibility, and interpersonal relationships. They were also all given the Rosenberg self esteem scale and a background questionnaire to collect information regarding sports participation and their level of involvement with sports (Ward, 2010). Ward found that the only statistically significant difference between female college athletes and non-athletes was the correlation between sociability and sports participation. The participants who played sports, self reported higher levels of social satisfaction while the participants who did not play sports reported lower levels.

In a large, nationally representative, longitudinal study by Hebert Marsh and Sabina Kleitman (2003) it was found that the self esteem of girls who played sports was higher than their peers who did not play sports and this difference continued for 6 years. Marsh and Kleitman noted that a lot of the current research tends to involve very small samples so that the results only have limited generalizability. Wanting to fix the lack of generalizable results, the National Center for Education Statistics sponsored a study for the U.S. Dept. of Education to examine students longitudinally to see how sports and self esteem relate over a period of time. The study initially involved following 12,084 African- American and Hispanic participants. In the end 4,250 participants provided valid data for all variables. Data were first collected during the base year of 1988 when the participants were all in the 8th grade. Follow up data collection occurred

every two years after that between February and May with the last collection during the postsecondary stage in the spring of 1994.

The study examined total athletic participation and found that students who "participated more in sports had higher grades,...higher self esteem" (p. 215). The study found that higher self esteem was related to the greater number of sports played across the different subgroups of students; varying socioeconomic statuses, the two ethnic groups that were studied (Black and Hispanic), and gender (2003).

The researchers then compared extramural and intramural sports. Extramural sports involved competing against other schools while intramural sports involved competing within the school that the participant attended. It was found that extramural athletic participation was a stronger indicator of the participant having higher self esteem. Participants in both extramural and intramural sports showed higher levels of self esteem compared to their non-sports participation peers; however, the extramural participants did display higher self esteem than their intramural counterparts (2003).

Risks of Sports Participation

Participating in sports may have a lot of potential positive effects but at the same time it carries some risks. One of those risks is that being involved in sports may increase the odds that the adolescent may become involved with drugs and alcohol (Mays, 2010; Lisha & Sussman, 2010). Mayes conducted a study of drinking amongst adolescent boys and girls who played sports. Mayes found that the participants who played sports were apt to have greater involvement in alcohol-related behaviors and tended to perceive a greater level of peer drinking than the general student population (Mays, 2010) This study is important because it discusses the possible risks that may be associated with children playing school sports.

In a thorough review of 34 peer- reviewed studies on high school and college sports and drug usage, it was found that "participation in sports is related to higher levels of alcohol consumption" (Lisha & Sussman, 2010, p.2). Just as Mays discussed in the aforementioned study, this study also suggested that additional research needs to be completed to figure out why this relationship between sports and alcohol consumption exists, as well as study about how the relationship that currently exists between sports and alcohol can be changed.

While many studies point to an increase in consumption of alcohol in student athletes, other studies have reported a decrease in alcohol consumption. The studies available are conflicting and no definitive answer has been made as to whether participating in a sport will increase or decrease the amount of alcohol that is consumed (Dodge & Lambert, 2009).

Another potential pitfall of playing sports is the risk of an injury. In a study that examined the rate of injury in 57 407 Finnish children (aged 14-18 years), 5 889 participants reported they had had an injury that required hospitalization. Of those requiring hospitalization, 95% of those injuries were reported to have come as a result of participation in a club sport (Mattila, Parkkari, Koivusilta, Kannus & Rimpela, 2009). A child who is being hospitalized is missing school days which can cause a loss of the child's education.

Another study identified that the number one cause of non fatal injuries for adolescent youth aged 16-20 years old was sports (Suris, Carles, Jeannin, Michaud, Narring, Diserens, 2004). The study also reported that out of 820 participants, 28.3% of them had reported at least one accident in the last 12 months that required medical care (Suris, et. al., 2004). The study did not specify the degree of medical care that the injury warranted so we are unable to be certain how the injury affected the participant's life and whether it caused any permanent problems or if the injury was not serious and did not require a lot of time to recuperate. So while sports may be

related to a decrease in mental health issues, it would be important to examine if the trade off is worth the potential physical injuries.

Summary

In summary, this review of the literature has shown that an increase in self esteem can have many positive effects for people. The goal is to figure out how best to increase self esteem to give teenagers the opportunity to potentially reap the benefits of having high self esteem at a young age. Sports appear to be one way to increase self esteem without having too many potential negative side effects. Through studying students who participate in sports and those who do not, it may be possible to see if there is any relationship between self esteem and sports. The literature has shown that sports participation increases self esteem and that has the potential to snowball to other positive effects, such as higher grades, lots of friends, and fewer mental health problems. After reviewing the literature, I suspect that the self esteem of the girls who play sports at Easthampton High School is going to be higher than the self esteem of girls who do not play sports. The intent of this research is to demonstrate that this is true.

Chapter III

METHODOLOGY

Problem Formulation

The purpose of this study is to quantitatively measure the self esteem of high school girls from grades 9th through the 12th. The girls either participated in sports or did not participate in sports. The major question that I was hoping to answer with my research was whether the girls who participated in sports, either in or out of school, would rate themselves as having higher self esteem than the girls who said that they did not participate in any school sports. The Rosenberg Self Esteem Inventory (Rosenberg, 1965) was the chosen research tool for this study because it has been widely used and has proven to be both a valid and reliable measure of self esteem (Griffiths, et. al., 1999).

Setting

The study took place in the town of Easthampton, Massachusetts with a population of 16,324 (*City Data*, 2010). In 2009, Easthampton had an average household income of just below $50,000. Easthampton is not a culturally diverse town, with 93.3% of the population self identifying as white, 2.7% as Asian, 2.1% Hispanic, and 1.9% as a mix who self identified as Black or multi racial (2010).

The study was held in the public high school in Easthampton. The school has an average student population of 450 students between 9th-12th grades. The school offers a variety of interscholastic sports to its students. The school offers basketball, swimming, ice hockey,

softball, baseball and others, with most of the sports being offered at the junior varsity and varsity levels. The school appears to be relatively safe with reportedly no major incidents of fighting, drug/alcohol use or smoking in school (Easthampton High School, 2011).

Sample

In my study were a total of 52 high school girls, including 11 9th grade participants, 10 10th grade participants, 17 11th grade participants and 14 12th grade participants. The participants ranged in age from 14 to 18 years old, with 50% of the participants being 16 or 17 years old. In total 29 participants reported they played interscholastic sports and 23 did not.

Procedure

The participants were first given two copies of the parental consent form (for those under 18 years of age), one for parents/guardians to sign and one for parents/guardians to keep, during their morning home room time. When the participants returned the signed parental consent form they then signed a participant consent form and kept a copy before being given the Rosenberg self esteem survey to complete during their lunchtime at school. That block of time was designated from Dr. Vito Perrone, principal of the school, as the best time to hold the data collection so that the process did not disrupt the school day. The survey was given in the cafeteria setting, amongst all of their classmates. After the participant filled out the inventory, the first fifty participants were given a coupon for a free slice of pizza (that had been donated from Antonio's Pizza of Easthampton) to thank them for participating.

The Rosenberg self esteem inventory is a ten question survey that required the participant to rate whether they strongly disagreed, disagreed, agreed, or strongly agreed with each statement. The demographic information that was collected at the top of the inventory included the participant's age, grade and whether they played a sport. If they marked that "Yes" to playing

a sport, they were also asked how many years they played a sport(s) and were asked to list the sports they participated in.

Participation took each student 10-15 minutes to read and sign the participant consent form and complete the self esteem inventory.

I sat at a table in the cafeteria and distributed a paper version of the self esteem inventory. Students approached the table and completed the inventory using a pen or a pencil and then they handed it back to me. I then immediately put the inventory into a folder marked "Confidential".

Data Analysis

I processed my data through utilizing Marjorie Postal at Smith College. My study used the Rosenberg self esteem inventory to rate the participants self esteem. This measure is a 4-point likert scale with scores that can range from 10-40; with a higher number corresponding with higher self esteem (SE). Cronbach's alpha was also run for the Rosenberg inventory to check the internal reliability. The Rosenberg had a strong internal reliability (alpha= .88, *n*=52, *n* of items= 10).

Chapter IV

FINDINGS

My study had 52 high school, girl participants (*n*=52). Participants ranged in age from 14 years to 18 years. There were 11 9th graders, 10 10th graders, 17 11th graders and 14 12th graders. There were 56% (*n*=29) of the participants who played sports and were compared against the 44% (*n*=23) of girls who reported they did not participate in athletics. Nineteen of the girl athletes had played sports between 1-7 years and 10 of the girl athletes played sports between 8 to 15 years. The sports the girls played ran the gamut, with many of the girls reporting they play multiple sports. The most popular sports reported were ballet/dance/cheerleading (*n*=10), soccer (*n*=9), volleyball (*n*=8) and softball (*n*=6).

My sample had SE scores ranging from 19 to 40 and had a mean of 29.08 (SD= 5.59). The Rosenberg scores range from 10 to 40 with a higher number indicating higher self esteem. A t-test was run to determine if the group of high school girls who played sports had a different mean SE score than the group of high school girls who did not play sports. The sport participant group had a higher mean SE score (30.3) than the non-sport participant group (27.5), however the difference was not statistically significant at the .05 level. My results were approaching significance and would be significant at the .1 level with t(49)=1.816, p=.075, 2 tailed.

T-tests were also run to determine if there was a difference in mean SE between girls in the 9th grade versus girls in the 12th grade. No significant difference was found and the mean was nearly identical (29.4 for 9th graders with the 12th grade group having a mean of 29.9).

The major findings were that the group of girls who played sports did have higher self esteem compared to the girls who did not play sports. However, this difference was not found to be statistically significant.

Chapter V

DISCUSSION

Overview of this study

This study was designed to measure the self esteem in a sample of girls who attend a small, suburban, public high school, and to determine whether there was any difference in self esteem between girls who played sports those who did not play sports. It showed that sports participants did have higher self esteem than participants who did not participate in sports. As established in Chapter IV, my results were not statistically significant. However, higher self esteem in the girl athlete participant group is congruent with other, similar studies that have examined sports and self esteem.

The motivation for this research was to find a contributing factor to self esteem. I have done a lot of work with children and have seen first hand the result of a child having poor self esteem and how improving self esteem can improve the child's overall functioning level. Through this research I was hoping to show a way to improve self esteem in a nonclinical way. Self esteem can affect a child in many ways and the negative implications for having low self esteem can make adolescence harder than it already is.

Limitations of this study

This study had several limitations that may have affected the outcome. The participants in my study were limited in that they had to attend lunch at their high school cafeteria in order to complete the survey. This may have resulted in excluding some of the older students who leave school grounds for lunch as well as students with internships who left during lunch to complete

them. This study also excluded girls who wanted to participate but who weren't 18 years old and did not return a parental consent form.

Another limiting factor may be due to the public setting in which the survey was administered; perhaps the students with lower self esteem elected to not participate. The students with lower self esteem may have felt uncomfortable completing the survey so perhaps my survey possibly has a disproportionate number of students with higher self esteem compared to the school as a whole.

Another potential setback for the study is that it was given during lunch time. As a result of that, the participants may have felt rushed to complete it and get back to eating, or they may have hurried through reading the questions and perhaps may have answered some of the questions wrong. They also may have simply wanted the incentive of a coupon for a free slice of pizza at local pizza shop, so the students that participated may have done so for the reward without thinking about their answers.

Recommendations for Future Study

In the future, it would be interesting to examine if there were any differences between extramural and intramural sports. The high school where I did my study only offered extramural sports so it would be interesting if I had been able to study those differences as well.

It would also be important to conduct this study in a more culturally diverse area to see if the results of self esteem and sports were similar across various race and ethnic groups. An aforementioned study examined self esteem and sports participation among African American girls (Marsh & Kleitman, 2003) however it would be interesting to see if the results were similar in a culturally mixed area.

References

Babiss, L., & Gangwisch, J. (2009). Sports participation as a protective factor against depression and suicidal ideation in adolescents as mediated by self-esteem and social support. *Journal of Developmental and Behavioral Pediatrics.* 30(5), 376-384. doi:10.1097/DBP.0b013e3181b33659.

Baydala, L., Rasmussen, C., Birch, J., Sherman, J., Wikman, E., Charchun, J., et al. (2009). Self-beliefs and behavioural development as related to academic achievement in Canadian Aboriginal children. *Canadian Journal of School Psychology.* 24(1), 19-33. doi:10.1177/0829573509332243.

Branden, N. (1992). *The power of self esteem: an inspiring look at our most important psychological resource.* Deerfield Beach, FL: Health Communications, Inc.

Branden, N. (1969). *The Psychology of Self-Esteem.* Los Angeles: Nash Publishing.

Bringle, R., Roach, S., Andier, C., and Evenbeck, S. (1979). Measuring the Intensity of Jealous Reactions. *Catalog of Selected Documents in Psychology.* 9, p 23-24.

Burke, M. (2006). Why Medications Are Not Enough: Looking More Deeply at Depression and Anxiety in Children. *No child left different.* (pp. 163-178). Westport, CT US: Praeger Publishers/Greenwood Publishing Group. Retrieved from PsycINFO database.

Buhrmester, M. D., Blanton, H., & Swann, W. r. (2011). Implicit self-esteem: Nature, measurement, and a new way forward. *Journal of Personality and Social Psychology.* 100(2), 365-385. doi:10.1037/a0021341

City data. (2010). Retrieved from http://www.city-data.com/city/Easthampton-massachusetts.html

Dodge, T., & Lambert, S. (2009). Positive self-beliefs as a mediator of the relationship between adolescents' sports participation and health in young adulthood. *Journal of Youth and Adolescence.* 38(6), 813-825. doi:10.1007/s10964-008-9371-y.

Easthampton high school. (2011). Retrieved from http://www.easthampton.k12.ma.us/adminoffice.cfm?subpage=199752

Epstein, S. (2006). Conscious and unconscious self-esteem from the perspectiveof cognitive-experiential self-theory. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives*. (pp. 69–76). New York, NY: Psychology Press.

Fletcher, R. (2008). Living on the edge: The appeal of risk sports for the professional middle class. *Sociology of Sport Journal.* 25(3), 310-330. Retrieved from PsycINFO database.

Ford, M., & Collins, N. (2010). Self-esteem moderates neuroendocrine and psychological responses to interpersonal rejection. *Journal of Personality and Social Psychology*. 98(3), 405-419. doi:10.1037/a0017345.

Goldberg, A.D., & Chandler, T.J. (1992). Academics and athletics in the social world of junior high school students. *The School Counselor*. 40,40-45.

Greenwald, A, McGhee, D, & Schwartz, J. (1998). Measuring implicit differences in implicit cognition: the implicit association test. *Journal of Personality and Social Psychology*. 74(6), 1464-1480.

Griffiths, R., Beumont, P., Giannakopoulos, E., Russell, J., Schotte, D., Thornton, C., et al. (1999). Measuring self-esteem in dieting disordered patients: The validity of the Rosenberg and Coopersmith contrasted. *International Journal of Eating Disorders*. 25(2), 227-231. doi:10.1002/(SICI)1098-108X(199903)25:2<227::AID-EAT13>3.0.CO;2-4.

Grimm, S., & Bajbouj, M. (2010). Efficacy of vagus nerve stimulation in the treatment of depression. *Expert Review of Neurotherapeutics*. 10(1), 87-92. doi:10.1586/ern.09.138.

James, W. (1983). *The principles of psychology.* Cambridge, MA: Harvard University Press.

Lisha, N., & Sussman, S. (2010). Relationship of high school and college sports participation with alcohol, tobacco, and illicit drug use: A review. *Addictive Behaviors.* 35(5), 399-407. doi:10.1016/j.addbeh.2009.12.032.

Lynch, A., & Clark, P. (1985). Relationship of self-esteem, IQ, and task performance for a sample of USA undergraduates. *Psychological Reports.* 56(3), 955-962. Retrieved from PsycINFO database.

Lyras, A. (2007). Characteristics and psycho-social impacts of an inter-ethnic educational sport initiative on Greek and Turkish Cypriot youth. *Dissertation Abstracts International*. 68, Retrieved from PsycINFO database.

Marsh, .W., & Kleitman, S. (2003). School athletic participation: mostly gain with little pain. *Journal of Sport and Exercise Psychology. 25,* 205-228.

Martens, A, Greenberg, J, & Allen, J. (2008). Self-esteem and autonomic physiology: parallels between self-esteem and cardiac vagal tone as buffers of threat. *Personality and Social Psychology Review*. 12(4), 370-389.

Mattila, V., Parkkari, J., Koivusilta, L., Kannus, P., & Rimpelä, A. (2009). Participation in sports clubs is a strong predictor of injury hospitalization: A prospective cohort study. *Scandinavian Journal of Medicine & Science in Sports*. 19(2), 267-273. R etrieved from PsycINFO database.

Mays, D. (2010). Sports participation and alcohol-related behaviors among adolescents. *Dissertation Abstracts International*. 71, Retrieved from PsycINFO database.

National Federation of State High School Association. (2006). High school athletic participation survey (2005-2006). Retrieved December 4, 2010, from http://www.nfhs.org/core/contentmanager/uploads/2005 06NFHSparticipationsurvey.pdf

Perlman, L., Cohen, J., Altiere, M., Brennan, J., Brown, S., Mainka, J., et al. (2010). A multidimensional wellness group therapy program for veterans with comorbid psychiatric and medical conditions. *Professional Psychology: Research and Practice*. 41(2), 120-127. doi:10.1037/a0018800.

Robinson, J, Shaver, Phillip, & Wrightsman, L. (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Silber, E., & Tippett, J. (1965). Self-esteem: Clinical assessment and measurement validation. *Psychological Reports*. 16(3, Pt. 2), 1017-1071. Retrieved from PsycINFO database.

Steiner H, Pavelski R, Pitts T, Mc-Quivey R. The Juvenile Wellness and Health Survey (JWHS-76): a screening instrument for General and Mental Health in High School. *Child Psychiatry and Human Development.* 1998;29:141-155.

Steiner, H., McQuivey, R., Pavelski, R., Pitts, T., & Kraemer, H. (2000). Adolescents and sports: Risk or benefit?. *Clinical Pediatrics*. 39(3), 161-166. doi:10.1177/000992280003900304.

Suris, J., Jeannin, A., Michaud, P., Narring, F., & Diserens, C. (2004). Unintentional injuries among 16 to 20 year old students in Switzerland. *International Journal of Adolescent Medicine and Health.* 16(3), 265-273.

Taylor, M., & Turek, G. (2010). If only she would play? The impact of sport participation on self-esteem, school adjustment, and substance use among rural and urban African Amercian girls. *Journal of Sport Behavior*. 33(3), 315-336. Retrieved from PsycINFO database.

Ward, E. (2010). Beyond the playing field: Linking team sports and relational skills. *Dissertation Abstracts International*. 70, Retrieved from PsycINFO database.

Ware, J. E., Jr., Snow, K. K., Kosinski, M., & Gandek, B. (1993). *SF-36 Health Survey: Manual and interpretation guide*. Boston: The Health Institute, New England Medical Center.

Zhao, J., & Si, J. (2009). Relationship among college students' implicit self-esteem, explicit self-esteem and jealousy behaviors. *Chinese Journal of Clinical Psychology*. 17(2), 222-224. Retrieved from PsycINFO database.

Appendix A

Human Subjects Review Approval Letter

SMITH COLLEGE
School for
Social Work

Smith College
Northampton, Massachusetts 01063
T (413) 585-7950
F (413) 585-7994

January 5, 2011

Tara Monzo

Dear Tara,

Your amended materials have been reviewed by the Human Subjects Review Committee. You have done a good job and everything is now in order. We are happy to give final approval to your project.

Please note the following requirements:

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

In addition, these requirements may also be applicable:

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

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

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

Good luck with your project.

Sincerely,

Ann Hartman

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Michael Murphy, Research Advisor

Appendix B

Participant Consent Form

Dear Participant,

I am a graduate student at Smith College completing my Masters in Social Work (MSW) degree. I am conducting a study of self esteem for girls in the 9th and 12th grade to see if any differences exist for girls who play sports compared to girls who do not play sports. I also am using this research for my MSW thesis and possible presentation and publication.

I hope to include as many girls as possible who are in the 9th and 12th grades. Your involvement will consist of completing a ten-question survey during home room. You then will have the option of attending a pizza party when my study is complete and I can inform you about what my study found. I will not be using your name or identifiable information on the survey. I will ask you your grade level and sport involvement status. You will be given the survey during your morning home room. Help can be provided with reading of the questions if necessary. This survey will take approximately 10 minutes to complete. If you are not yet 18, I will also need a parents or guardian's permission before you can participate.

I don't expect there will be much risk involved in participation. There is a slight possibility you may experience emotional discomfort while you answer questions about your self esteem. All answers will be kept anonymous and you may stop participating at any time or decide to not hand in the survey. I've included a list of resources if you would like to talk to someone about feelings that may come up. Some benefits of

participation may be that you will gain a new perspective on self esteem and increase your self awareness, and you will be contributing to research about sports participation. I can't pay you for your participation but you're invited to a pizza party that I will hold after the results are complete.

Because you will complete a survey during homeroom, other students will know whether or not you have participated, but your answers will be anonymous because your name will not be on the survey. Your peers will not know how you responded to any of the questions unless you choose to tell them yourself. Only I, my research advisor, and the data analyzer at Smith College will see your answers and we will treat them confidentially. I'll keep all information securely locked for three years as required by Federal guidelines. Beyond the three year period, I will continue to keep the information secure and then destroy it when I no longer need it.

Your participation in the survey is entirely voluntary. You may withdraw from the study at any time or refuse to answer any question(s). Once you turn in your survey, since your name won't be on it, I will not be able to tell which survey is yours, so at that point you will not be able to withdraw from the study. If you have any concerns about your rights or any questions about any aspect of this study, I encourage you to contact either myself, or the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585- 7974.

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTOOD THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

_____ _____ _____

(Participant) (Researcher) (Date)

Researcher Contact Information: Tara Monzo; [removed for privacy purposes] [this is my work phone number, leave me a message and I will get back to you]

Appendix C

Parent/ Legal Guardian Consent Form

Dear Parent/ Legal Guardian,

I am a graduate student at Smith College, completing my Masters in Social Work (MSW) degree. I am conducting a study on girls in the 9th and 12th grade at Easthampton High School. I want to study the self-esteem in 9th and 12th grade girls to see if there are differences for girls who play sports compared to girls who do not play sports. I also am using this research to satisfy the thesis requirement of my MSW program and for possible presentation and publication.

I hope to include as many girls as possible who are in the 9th and 12th grades. Your daughter's involvement in this study will consist of completing a ten question survey during homeroom. Your child then will have the option of attending a pizza party when my study is complete during which I will inform the participants about what my study found. In the study I will not be collecting names or any personally identifiable information on the survey. This survey will take your child approximately 10 minutes to complete.

I don't expect there will be much risk involved in your daughter's participation. There is a very slight chance that she may experience emotional discomfort while she answers questions about her self-esteem. All answers will be kept anonymous and your daughter may stop participating at any time or decide not to hang in the survey. I've included a list of resources if your daughter would like to talk to someone about feelings that may come up as a result of her participating. Some benefits of participation may be

that she will gain a new perspective on self esteem, increase her self awareness, and she will be contributing to research about sports participation. I can't pay your child for her participation but she is invited to a pizza party which will take place after the completion of the study to discuss the results. .

Because students will complete the surveys during homeroom, other students will know whether or not your daughter has participated, but your child's survey answers will be kept anonymous. Your child's peers will not know how she responded to any of the questions unless she chooses to tell them herself. The survey answers will be accessible to me, my research advisor, and the data analyzer at Smith College. All information collected will be kept securely locked for three years as required by the Federal guidelines. Beyond the three year period, surveys will be destroyed once I no longer need them.

Your child's participation in the survey is entirely voluntary. Your child may withdraw from the study at any time or refuse to answer any question(s) up until the time she hands in the survey. Once she hands it in, she won't be able to withdraw from the study because I will not be able to tell which survey was hers. If you have any concerns about you or your child's rights or any questions about any aspect of this study, I encourage you to contact me, or the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585- 7974.

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTOOD THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR CHILD'S PARTICIPATION, AND YOUR CHILD'S RIGHTS AND THAT YOU AGREE TO PARTICIPATE AND ALLOW YOUR CHILD TO PARTICIPATE IN THE STUDY.

_____ _____ _____

(Participant) (Researcher) (Date)

Researcher Contact Information: [removed for privacy purposes] [this is my work phone number, leave me a message and I will get back to you]

Appendix D

Rosenberg Self Esteem Inventory

Age: _____

Grade: _____

Do you play any sports? _____

If yes: How many years have you played? _____

Please list the sport(s) you participate in: _____

Below is a list of statements dealing with your general feelings about yourself.
If you strongly agree, circle **SA**
If you agree with the statement, circle **A**
If you disagree, circle **D**
If you strongly disagree, circle **SD**

1. On the whole, I am satisfied with myself. SA A D SD
2. At times, I think I am no good at all. SA A D SD
3. I feel I have a number of good qualities. SA A D SD
4. I am able to do things as well as most others. SA A D SD
5. I feel I do not have much to be proud of. SA A D SD
6. I certainly feel useless at times. SA A D SD
7. I feel that I am a person of worth, at least on an equal plane with others. SA A D SD
8. I wish I could have more respect for myself. SA A D SD
9. All in all, I am inclined to feel that I am a failure. SA A D SD

10. I take a positive attitude toward myself. SA A D SD

Rosenberg, Morris. 1965. *Society and the Adolescent Self-Image*. Princeton, New Jersey: Princeton University Press.

Appendix E

Recruitment Flyer

Are you a 9th or 12th grade girl?

Are you interested in being involved with a study about self esteem?

If you answered **YES** to those two questions then
get excited!!!
Beginning Monday, January 24th, Tara Monzo, the researcher of this study, will be visiting classrooms to hand out permission slips for your parents and to tell you all about this fun opportunity!!!

The survey is **easy** and won't require a lot of time!!

To thank you for returning the signed PARENT FORM and FILLING OUT A SURVEY A LUNCH:

<u>All girls who participate in the study will receive a coupon for a free slice of pizza from Antonios!!!!!!</u>

This research is being conducted by Tara Monzo who is a graduate student at Smith College. Tara is currently pursuing her Master's of Social Work degree. Any questions at anytime about this study may be sent to Tara at [removed for privacy purposes] or call [removed for privacy purposes] and ask for Tara.