Differences in Self-Esteem between Division III Collegiate Athletes and Non-Athletes

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Abstract

Self-esteem is one of the most studied personal traits by social psychologists today. The current study evaluated the relationship between self-esteem and different self-identified groups of college students. It was predicted that college athletes would maintain significantly higher levels of self-esteem than non-athletes, based on measures of academic ability, body image, life stress, alcohol use, and self-esteem alone. The data supported this hypothesis. Self-esteem levels were found to be significantly higher in athletes. Body image and alcohol use were also found to be greater in athletes. Body image and life stress were found to be predictors of self-esteem in athletes, but only body image was a predictor of self-esteem in non-athletes. Implications for future research are discussed.
Differences in Self-Esteem between Division III Collegiate Athletes and Non-Athletes

The global concept of self-esteem can be defined as “…how much value people place on themselves…the evaluative component of self-knowledge” (Baumeister, Campbell, Krueger, & Vohs, 2003, p. 2). Arguably the most studied personal trait by social psychologists, self-esteem is an important feature that can shape performance and one’s outlook on life (Baumeister, 2010). Specifically, much research has been conducted on the differences between persons with high and low self-esteem. Benefits of high self-esteem include greater confidence in oneself, persistence in one’s beliefs, and resilience in times of stress (Baumeister, Campbell, Krueger, & Vohs, 2003). Overall, high self-esteem appears to yield a more stable self-image and makes us feel better about ourselves.

What is interesting about self-esteem research is its true nature. Baumeister and colleagues (2003) completed an overarching review of past self-esteem literature that outlines this. They state that for many years, social psychologists assumed that boosting self-esteem would in turn cause better performance and improve one’s life. More recent findings suggest that high-self esteem is a product of personal achievements and abilities, not a cause of them. Thus, high self-esteem does not cause good performance; rather, good performance increases self-esteem. It has been difficult to define this relationship, due to the fact that much of the previous research on this topic is solely correlational. The direction of causality is unknown in such self-esteem paradigms. Presently, we must look to identify the various factors that may influence self-esteem levels. To specifically look at the relationship between the person and their levels of self-esteem, one must study a population whose self-evaluation is thought to result from level of performance. A perfect opportunity for this is found in the student-athlete, whose self-esteem is related to athletic performance (Gotwals & Wayment, 2002).
The Student-Athlete as a Subject

Today, it is estimated that over 430,000 college students participate in athletics in the United States (NCAA, 2012). This large and unique population can be studied to learn more about the behaviors and self-esteem of young adults. Student-athletes are a particularly interesting sample of individuals; they must balance academia with athletics, even if athletics are the central focus. They are often judged upon their external performances, both on the athletic stage and in the classroom, which possibly alters their internal self-concept. Those that may be even more important to study are the unpaid, non-scholarship athletes of Division III, the lowest tier of competition. For these students, academics take precedence over athletics (Sturm, Feltz, & Gilson, 2011). While these students are still more likely to self-identify as athletes, they maintain a greater similarity to their peers, a difference from their Division I and II counterparts. Are there significant differences between athletes and how they feel about themselves and their non-athlete counterparts?

Differences between the Self-Esteem of Athletes and Non-Athletes: Mixed Research Results

Self-esteem is an important personal component used to evaluate the efficacy, happiness, and performance of the individual. Fortunately, studies of self-esteem levels in athletes and non-athletes are prevalent in literature today. A database search using for self-esteem alone yields over 13,000 results (Leary, 1999). While this research is extensive and thorough, contradictory results are found when the term athletics is added to the equation. Some researchers find that athletes maintain an edge over their non-athlete peers in self-esteem, stemming from athletic performance and general participation in sport. Others conclude that athletes have lower levels of self-esteem as compared to non-athletes and may, in turn, be at a greater risk for mood disorders, such as Major Depressive Disorder, due to this difference.
For example, Aries, McCarthy, Salovey and Banaji (2004) report that collegiate athletes maintain better perceptions of themselves than non-athletes in multiple categories. Athletes consider themselves to be “socially skilled, outgoing, confident and good leaders” (p. 597), and will rank themselves higher in these categories than non-athletes do. Athletes in this study were also found to have higher levels of overall well-being, which was taken from direct measures of self-esteem, social life, and perceived control. This suggests that participation in athletics may give a student a positive experience that other activities cannot provide. Armstrong and Oomen-Early (2009) state that athletes maintain higher levels of self-esteem and lower levels of depression than non-athletes. In this study, self-esteem was directly measured and was found to be influenced by athletic status. An inverse relationship between self-esteem and depression symptoms was found in both the athlete and non-athlete samples. This may suggest that participation in athletics can give one a positive support system, such as a team or coach, a unique aspect that non-athletes often times do not have access to. Or, this may also suggest that because the athlete maintains higher self-esteem, he or she will work to actively seek out social support. In turn, by maintaining high self-esteem and surrounding oneself with a strong support system, one can better ward off depressive symptoms, as evidenced by Eisenbarth (2012). It is also commonly known that exercise can help ward off symptoms of depression, as it boosts endorphin levels and lowers cortisol production, a key component that may separate athletes from non-athletes.

In contrast to these findings, Storch, Storch, Killiany and Roberti (2005) concluded that Division I female athletes show greater depressive and anxiety symptoms than male athletes and female non-athletes. These same female athletes also indicated they had less social support than non-athletes. What could be the reason for these differences? It appears that level of
competition and sport type may be important factors. Pressures of Division I athletics can be hypothesized to be greater than those at other levels (Lapchick, 1989). In regards to gender, lean-type sports (i.e., sports in which thinness is encouraged and emphasized for success, such as gymnastics and distance running) may induce poorer self-esteem in females than sports that do not focus as much on body shape and size (Reinking & Alexander, 2005). Pressures to maintain a particular weight or shape may have negative consequences on self-esteem (Heinberg & Thompson, 1995). Further research must be completed to evaluate these contradictory findings.

Inconsistencies in research have also been found in terms of personality and self-esteem. Denny and Steiner (2009) state that athletes are better able to internalize happiness, motivations, and locus of control than non-athletes. A regression analysis completed by the researchers notes that athletes maintain stable, trait-like personality factors that contribute to their happiness; they are less influenced by external successes in their respected sports. This suggests that the personality of the athlete is unique to some extent. Yet, Weinberg and Gould (2011) state that no specific personality profile has been found that consistently distinguishes athletes from non-athletes in this sense. Trait analyses yield no consistent differences between those that self-identify as athletes and those that do not. In an overarching study of 1,600 male athletes, Schurr, Ashley, and Joy (1977) concluded that there is no one specific personality trait that separates athletes from non-athletes. Measures of self-concept and personality did not yield significant differences. Where do the differences truly lie, if there are any at all? It may be the case that innate personality characteristics interact with the various factors described previously to influence self-esteem in athletes and non-athletes alike.

It may also be the case that differences between elite and non-elite athletes contribute to these findings. For example, research completed with elite Chinese professional athletes
(equivalent to Division I American athletes) and non-elite, recreational athletes concludes that there are significant differences between the two groups (Gan & Anshel, 2006). Elite athletes excel in cognitive appraisal, and share similar psychological and behavioral tendencies, no matter the sport. Non-elite athletes did not possess these abilities. Additionally, research with Division I football players concludes that athletes maintain less intrinsic motivation at this level of competition because of the reception of scholarship money; they gain less personal satisfaction and enjoyment from playing their sport as compared to athletes at other levels, who do not receive such pay (Amorose, Horn & Miller, 1994). Thus, it may be more appropriate to evaluate Division III athletes, who do not receive scholarships for their sport. These athletes should not maintain the title of “elite” and therefore should be more similar to their non-athlete peers. Therefore, the measurable difference will lie in the participation of sport; if significant differences still exist in self-esteem at this level, this can determine the true effect that sport plays on the development of self-esteem in college athletes. This is the goal of the current study.

Because the direct relationship between self-esteem in athletes and non-athletes is inconclusive, we must look deeper at the factors that influence the self-esteem of persons, regardless of athletic status. It appears that the specific outcomes of these elements are what influence self-esteem the most.

**The Case for Self-Concept**

Despite extensive study, it seems that many researchers maintain incorrect assumptions about self-esteem itself (Leary, 1999). It is assumed that humans are motivated to preserve and protect their self-esteem for their own purposes, but in reality, this protection may come from a desire for social acceptance rather than personal interest. Due to the various inconsistencies in self-esteem research, perhaps self-concept is a better trait to study. Self-concept, or the beliefs
one maintains about oneself, differs from self-esteem in that there are not outwardly positive or negative feelings tied to it (Baumeister, 2010). Rather, self-concept is how one identifies oneself against others; a sense of who one is as an individual, and how one classifies and describes oneself with traits or characteristics. In terms of athletics, the identification of oneself as an “athlete” is part of that person’s self-concept. Is there something unique about being an athlete? Does that identification then influence self-esteem? This research will attempt to answer these questions. There are many standardized instruments available that are considered to be valid and reliable measures of both self-esteem and self-concept (Wylie, 1989). By evaluating both self-esteem and self-concept, one can gain a better understanding of who college students are and how they feel about themselves, a more complete representation of each person.

**Factors that Affect the Self-Esteem of Athletes and Non-Athletes**

It was previously hypothesized that self-esteem is a product, not a cause, of behaviors and feelings about oneself. Therefore, what factors influence one’s level of self-esteem? Below is a review of various research topics that have been studied in samples of both collegiate athletes and non-athletes. These topics include body image, academics, levels of stress, and alcohol use. These elements can give us clues as to how self-esteem is affected in the two groups. By following this model, one can infer that the subsequent outcomes of these factors can positively or negatively influence self-esteem in both the athlete and non-athlete.

*Body Image and Satisfaction*

Body image is an important aspect to consider when looking at relationships to self-esteem. The way that one looks can have serious impact on the way in which one feels. This is the case in males and females, athletes and non-athletes alike. Cultural and media influences play a significant role in how persons evaluate their bodies (Fernandez & Pritchard, 2012).
Societal pressures to look a certain way are greater than ever before (Balcetis, Cole, Chelberg, & Alicke, 2013; Heinberg & Thompson, 1995). Therefore, it is hypothesized that the more satisfied one is with his or her body, the higher his or her self-esteem will be.

There have been uniform research findings on the topic of body image and satisfaction in athletes and non-athletes. Research concludes that athletes maintain positive differences over non-athletes in terms of body image (Hausenblas & Symons Downs, 2001). In this study, a meta-analysis of 78 different studies using 13,037 athletes was conducted to determine that overall, athletes report a more positive body image; the reason for this being that they are more likely to represent the body types most desired in our culture (i.e., thinness, lean muscle, etc). The researchers also relate body image to the positive characteristics that exercise induces; including neurochemical changes, which they argue positively influences self-esteem.

Reinking and Alexander (2005) also found that female athletes tend to show less body dissatisfaction and are at a lower risk for disordered eating than female non-athletes, disproving their hypothesis that athletes would be more likely to engage in such behavior. However, lean-sport female athletes (i.e., gymnastics, figure skating) were found to be at a greater risk for disordered eating than non-lean sport female athletes (i.e., softball), but not more so than non-athletes. The researchers note the effects of the “be thin to win” mentality that is pervasive in particular women’s sports that may promote this. Overall, athletes in this study also scored higher on a reliable self-esteem measure, which was indicative of feelings of security and adequacy. The results of this study suggest that positive effects of athletic participation may outweigh the pressures to look a certain way.

In summary, it appears that athletes of non-lean sports maintain a better body image than non-athletes. Females in lean sports may have poorer body images because their focus on this
aspect is so important. Overall, sport-induced lifestyle (i.e., scheduled rigorous exercise, dietary restrictions, etc.) should give athletes an advantage in potential for better body image than non-athletes, who may not engage in such behaviors.

Academic Achievement

Additional factors that could potentially affect self-esteem levels are the elements of one’s collegiate life. Often their first time living away from home, college students must learn to self-regulate and monitor their behaviors so that they may achieve success. Research on academic successes in both athletes and non-athletes has given way to some interesting findings.

Often times, it is assumed that athletes struggle academically and do not perform as well as non-athletes in the classroom. This is evidenced by many “pass to play” tactics used at some institutions with top performers at the Division I level (Lapchick, 1989). Research at an Ivy League institution concluded that there were no true academic differences between athletes and non-athletes (Aries, McCarthy, Salovey & Banaji, 2004). While these athletes felt that they were at an academic disadvantage as compared to their non-athlete peers (in terms of time management and absences from classes due to athletics), their overall performance in the classroom was similar. However, it is important to note that the admission criteria the institution itself may have biased the results, as its students most likely maintain fewer measurable differences academically. Students at such an institution are typically top academic achievers.

At the Division III level, grade point averages of athletes and non-athletes do not significantly differ (Richards & Aries, 1999). Additionally, research by Rishe (2003) highlights a non-difference between the groups: student athletes and non-athletes graduate at similar rates. In a measure of 308 Division I, Division II, and Division III colleges and universities around the
nation, 58.2% of athletes graduate with a degree, as opposed to 54.6% of all other undergraduates.

Unfortunately, this is not the case at all academic institutions. In a study of 18 Division I institutions, it was concluded that the cognitive abilities (measured through tests of scientific reasoning, writing, critical thinking, and reading comprehension) of male student-athletes of basketball and football programs are significant lower than non-athletes and males participating in other sports (Pascarella et al., 1999). In addition, research analyzing the academic majors of football players in the Division I Big 12 conference found a significant effect of “clustering”: the theory that members of the same sports team choose the same majors; ones that are often perceived to be “athlete-friendly” and less rigorous than others (Schneider, Ross & Fischer, 2010).

Overall, it has been concluded that there may not be a relationship between high self-esteem and academic achievement (Baumeister, Campbell, Krueger, & Vohs, 2003). Widespread research findings have come to the conclusion that the two factors may be unrelated. Academics are a large part of a college student’s life, which makes the topic still worth investigating. Therefore, the relationship between self-esteem and academic achievement would be expected to affect athletes and non-athletes in similar ways.

Levels of Stress

Another important factor that may influence self-esteem in college students is the element of stress. Research shows that college students share similar amounts of life stressors, regardless of their participation in sports (Wilson & Pritchard, 2005). For example, stressors that affect athletes can include burnout and time management, but non-athletes experience stressors from other non-athletic endeavors (i.e., employment, membership in clubs and organizations, etc.).
While the stressors may be different, it is the same amount of stress that is acting upon the student, no matter the status. Results of these studies did not find significant differences between athletes and non-athletes on these factors. In terms of the relationship between stress and self-esteem, it appears that high self-esteem resulting from other endeavors can act as a buffer to help one navigate stressful life situations (Eisenbarth, 2012). Consequently, if self-esteem is low, increased stress may lead to instances of depressive symptoms. This relationship is very important: it underscores the idea that persons can engage in activities that increase self-esteem to repel the effects of stressful situations. This may suggest that athletes will maintain lower levels of stress because of their participation in sport.

**Alcohol Use**

A final factor that can potentially influence self-esteem levels in student athletes and non-athletes alike is the act of consuming alcohol. This behavior can significantly alter self-concept and, when used in excess, can harmfully influence academics, athletic commitments, and personal relationships. Studies show that such behavior can affect athletes more negatively. Research has indicated that athletes tend to engage in more high-risk drinking (“five or more drinks on one occasion”) than do non-athletes (Brenner & Swanik, 2007, p. 269). When surveyed, 75% of 720 athletes reported that they engaged in high-risk drinking within a two-week period. Results also concluded that team-sport athletes engage in more high-risk drinking (84%) than individual sport athletes (57%).

Similar studies show that there is a greater frequency of alcohol use and gambling behavior among collegiate athletes (Weiss, 2010). In a survey of 503 college students, scores on measurements of alcohol consumption and gambling activity were higher and significantly different for athletes than non-athletes. Overall, more male athletes were found to be suffering
from a “cross-addiction” between alcohol dependency and gambling addiction. Finally, Grossbard et al. (2009) found that athletes overestimate substance use of other athletes at their respected institutions, and that alcohol use was more pronounced in males who had stronger affinities to their team.

There are correlations that exist between self-esteem and alcohol use. Sharp and Getz (1996) found that college students who used alcohol within a monthly period scored higher on self-esteem measures than their peers who did not. They argue that alcohol can act as a social stimulant, boosting positive social interactions which can increase self-esteem. While the results of this study were correlational in nature, they indicate some relationship between alcohol use and self-esteem. However, the results do not indicate in which context alcohol is being used, whether it is high-risk or in moderation. Future research is needed to better evaluate this.

Summary

Each of the above factors appears to contribute to self-esteem level in some way. Optimally, by maintaining a positive body image, succeeding academically, sustaining low levels of stress, and avoiding high-risk behaviors, one should have high self-esteem. How can athletics play a role? If athletes and non-athletes are matched on these factors, will there still be differences in self-esteem?

The Current Study: Summary and Hypotheses

These research findings are what have inspired the current study. Measures of various elements at a small, private, Division III institution could provide clues as to what is influencing self-esteem in athletes. Athletes at such an institution do not maintain “elite” status and lack the “big stage” effect: they are unpaid and do not receive athletic scholarships. Additionally, at such an institution, academic demand and rigor is more likely to be greater. Comparisons against
their non-athlete counterparts could yield interesting results, as they do not differ from their classmates in as many factors as athletes at larger institutions do. While they may still self-identify as athletes, they maintain fewer intrinsic differences from their peers. Therefore, if differences in these categories exist, their expression should be more pronounced.

It was predicted that there will be a significant difference between collegiate student athletes and non-athletes in the measure of self-esteem level. Specifically, it was predicted that athletes will maintain significantly higher levels of self-esteem. This hypothesis was critically evaluated through a direct measure of self-esteem and an analysis of the factors that appear to influence self-esteem (body image, academic ability, perceived stress, alcohol use). This hypothesis was also evaluated by student status (athlete or non-athlete) to determine whether athletics are a significant predictor for self-esteem.

**Methods**

*Participants*

Participants were a stratified sample of the Marietta College student population (*n* = 94). Athletes (*n* = 51) were recruited specifically, in effort to equally represent each of the 16 NCAA Division III sports the institution sponsors. All coaches were contacted about the study to recruit participants from each sport. Following initial contact, recruitment sessions were held for men’s basketball, men’s tennis, women’s basketball, women’s rowing, and women’s volleyball to schedule participation in the study at a later date. Athletes were also able to participate through the Department of Psychology research database. These students received research participation credit for their respected psychology course as incentive. In total, the teams that were represented in this study included men’s basketball (*n* = 5), football (*n* = 5), men’s rowing (*n* = 2), men’s soccer (*n* = 2), men’s tennis (*n* = 4), men’s track and field (*n* = 1), women’s basketball
(n = 10), women’s cross country (n = 1), women’s rowing (n = 10), women’s soccer (n = 1), softball (n = 3), women’s tennis (n = 2), women’s track and field (n = 2), and women’s volleyball (n = 3).

Non-athletes (n = 43) were recruited randomly and separately through the Department of Psychology research database. These students also received research participation credit for their respected psychology course as incentive. There were no specific admission criteria to participate in the study. The mean age of participants was 19.62 years with 29 male participants and 65 female participants.

Materials

All data was obtained through questionnaires. A demographics questionnaire developed by the researcher was used to obtain basic information about the participant, including age, gender, grade point average, major academic study, academic honors, and sport participation (see Appendix B). This questionnaire determines athletic status and academic achievement for statistical purposes.

The Rosenberg Self-Esteem Scale (RSES; see Appendix C) is a 10-item questionnaire used to assess personal self-esteem levels (Rosenberg, 1965). Participants read each item and then circle whether they agree or disagree with the statement. This is measured on a 4-point Likert scale, ranging from “strongly agree” to “strongly disagree”. Scores range from zero to 30, with higher scores indicative of higher self-esteem. Specifically, scores of 0 to 14 indicate low self-esteem, scores of 15 to 25 indicate normative self-esteem, and scores of 26 to 30 indicate high self-esteem. This standardized measure has been proven to be valid and reliable in assessing self-esteem (Heatherton & Wyland, 2003). This instrument is also a valid measure for assessing self-concept (Wylie, 1989).
The Body Esteem Scale (BES; see Appendix D) developed by Franzoi and Shields (1984) is a 35-item questionnaire used to assess bodily satisfaction based on individual body parts and functions. The factors measured on this scale include physical attractiveness (males), sexual attractiveness (females), upper body strength (males), weight concern (females), and physical condition (both males and females). Participants are presented with a single body part or function and must rank their personal satisfaction of that part or function on a scale of one to five, with one indicating “strong negative feelings”, and five indicating “strong positive feelings”. Scores range from zero to 175, with higher scores indicating greater body satisfaction. This is a standardized measure for assessing body esteem and has been found to be valid and reliable (Cafri & Thompson, 2004). The BES is also a valid instrument for assessing self-concept (Wylie, 1989).

The Student-life Stress Inventory (SLSI; see Appendix E) is a 51-item questionnaire that measures perceived stress in students based on four dimensions: physiology, behavior, cognition, and emotion (Gadzella, 1991). Participants read a statement and answer on a 5-point Likert scale (ranging from “never” to “most of the time”) how often they experience a particular event or feeling. Scores range from zero to 225, with higher scores indicating greater life stress. This measure is standardized and has been found to be valid and reliable (Gadzella & Baloglu, 2001).

The Short Michigan Alcoholism Screening Test (SMAST; see Appendix F) is a 13-item measure that assesses general drinking trends of the participant (Selzer, Vinokur, & Rooijen, 1975). Participants read each statement regarding their personal alcohol consumption and answer “yes” or “no”. Statements indicative of potential alcoholism are counted as one point and totaled. Higher scores indicate potential for alcohol abuse; scores above seven are indicative of
alcohol dependence. This measure is standardized and has been determined to be valid and reliable (Shields, Howell, Sharp-Potter, & Weiss, 2007).

Procedure

Participants were first asked to read and sign the informed consent document (see Appendix A). During this time, the researcher explained what the study entailed and how the participant’s privacy would be protected. Upon consent, participants were given the packet of questionnaires. The order of the questionnaires followed as such: demographics questionnaire, Rosenberg Self-Esteem Scale, Body Esteem Scale, Student-life Stress Inventory, and Short Michigan Alcoholism Screening Test. Participants were debriefed following the completion of the questionnaires.

Results

The alpha level for analyses was set at .05. Athletes and non-athletes were first directly compared as groups on the measure of self-esteem and the factors thought to influence self-esteem. Using an independent samples t-test, athletes and non-athletes were evaluated using the scores obtained from the demographics questionnaire, the Rosenberg Self-Esteem Scale, the Body Esteem Scale, the Student-life Stress Inventory, and the Short Michigan Alcoholism Screening Test. As predicted, athletes (\( M = 23.49, SD = 4.56 \)) were found to maintain significantly greater levels of self-esteem than non-athletes (\( M = 20.70, SD = 3.96 \)), \( t(92) = 3.14, p = .002 \). There was not a significant difference between athletes (\( M = 3.11, SD = .436 \)) and non-athletes (\( M = 3.29, SD = .467 \)) in terms of academic ability based on grade point average, although this finding was approaching significance, \( t(92) = -1.92, p = .058 \). Athletes (\( M = 133.45, SD = 17.10 \)) and non-athletes (\( M = 140.58, SD = 20.08 \)) also did not significantly differ on the measure of life stress, \( t(92) = -1.86, p = .066 \). However, athletes (\( M = 130.35, SD \))
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18.72) were found to have significantly greater body esteem than did non-athletes \( (M = 117.44, SD = 17.52) \), \( t (92) = 3.43, p < .001 \). Finally, athletes \( (M = 1.16, SD = 1.36) \) were found to be at a significantly greater risk for alcohol abuse than non-athletes \( (M = 0.54, SD = 1.22) \), \( t (92) = 2.31, p = .023 \). See Table 1 for descriptive statistics of the above mentioned results.

A stepwise multiple regression analysis was used to test if the factors thought to influence self-esteem (grade point average, body esteem, student life stress, and alcohol use) significantly predicted self-esteem itself. It was found that body esteem significantly predicted overall self-esteem, \( (β = .137, p < .001) \). Student life stress was also found to be a significant predictor of self-esteem, \( (β = .109, p < .001) \). The results of the regression indicated that the predictors accounted for 34.4% of the variance, \( (R^2 = .59, F(1, 92) = 48.16, p < .001) \). Grade point average \( (β = .088, p = .298) \) and alcohol use \( (β = .096, p = .261) \) did not significantly predict overall self-esteem levels.

The model was run to also include athletic status as a predictor variable. This did not change the results, as athletic status was not found to be a significant predictor of self-esteem \( (β = -.128, p = .205) \). The predictors continued to account for 34.4% of the variance, \( (R^2 = .59, F(1, 92) = 48.16, p < .001) \). Body esteem and student life stress continued to be the strongest predictors of overall self-esteem.

To determine the value of athletic status in whether the predictor variables influenced self-esteem, a stepwise multiple regression was run with athletic status as the selection variable. It was found that body esteem \( (β = .120, p < .001) \) and student life stress \( (β = -.097, p = .004) \) significantly predicted overall self-esteem in athletes, but only body esteem \( (β = .137, p < .001) \) predicted overall self-esteem in non-athletes. Grade point average \( (β = .094, p = .419) \) and alcohol use \( (β = .098, p = .413) \) did not significantly predict self-esteem in athletes. Grade point
average ($\beta = .198, p = .112$), alcohol use ($\beta = -.004, p = .976$), and student life stress ($\beta = -.246, p = .077$) did not significantly predict self-esteem in non-athletes. The predictors accounted for 24.3% of the variance in the athlete sample, ($R^2 = .49, F(1, 49) = 15.70, p < .001$). The predictors accounted for 36.7% of the variance in the non-athlete sample, ($R^2 = .61, F(1, 41) = 23.72, p < .001$).

**Discussion**

The current study sought to examine differences in self-esteem between athletes and non-athletes. This research was based on the inconsistent findings of previous works, some of which indicate that athletes may maintain higher levels of self-esteem because of their participation in sports (Aries, McCarthy, Salovey, & Banaji, 2004; Armstrong & Oomen-Early, 2009), and others that argue athletics induces stress, anxiety, and depression, and thus lowers self-esteem (Storch, Storch, Killiany, & Roberti, 2005). It was hypothesized that athletes would maintain higher levels of self-esteem, and this was supported in the research findings. Athletes scored significantly higher on a standardized measure of self-esteem than non-athletes. Furthermore, 39.2% of athletes ($n = 20$) surveyed scored “high” on this measure of self-esteem (obtaining a score greater than 25), as compared to only 20.9% of non-athletes ($n = 9$). See Table 2 for descriptive statistics of these findings. This suggests that athletes think even more highly of themselves than do non-athletes, and this difference is magnified in these scores. The presence of significantly higher scores in the athlete sample suggests that athletes may be able to relate more to their “ideal” selves, as suggested in previous research (Gotwals & Wayment, 2002). Due to sports participation, athletes learn to maximize skill sets that they succeed in, and in turn reduce their “feared” selves. These results also conclude that athletes maintain a heightened and more positive self-concept than non-athletes, as the RSES is also a measure of self-concept. This
Differences Athletes Non-Athletes suggests that because athletes self-identify as such, their overall sense of self is more developed and thus more positive, supporting previous research findings (Aries, McCarthy, Salovey, & Banaji, 2004; Richards & Aries, 1999). As suggested by the authors, this may be due to the unique subculture that athletics create in colleges and universities. Athletes self-identify as both athletes and with their respected teams, heightening this self-knowledge of who one is. The positive relationship between this identification and self-esteem at the Division III level is an important finding that falls in line with previous work.

To better evaluate this overall self-esteem, other factors related to self-esteem were examined. In terms of academic ability, athletes and non-athletes were found to achieve similar grades. This factor was also not predictive of overall self-esteem. This supports the idea that there may not be a relationship between self-esteem and academic achievement (Baumeister, Campbell, Krueger, & Vohs, 2003). These results also suggest that the nature of the institution at which the study took place plays a role. Athletes at this institution compete at the Division III level, where no scholarships are given for athletic talent. Rather, these athletes may instead maintain academic scholarships contingent upon their performance in the classroom. Athletes at this institution also must maintain a grade point average of at least 2.50 to participate in their sport. Therefore, this non-difference in academic performance is expected in this particular population and has been supported by previous studies (Richards & Aries, 1999).

Athletes and non-athletes were also found to experience similar life stressors. Scores were found to not be significantly different on this measure. However, this factor was predictive of overall self-esteem in athletes, but not non-athletes. These results support those found in previous studies (Wilson & Pritchard, 2005; Eisenbarth, 2012). This finding relates back to that of academics, in which one can potentially cite the nature of the institution for such a result.
Both athletes and non-athletes are expected to excel academically, and must balance their schoolwork with other activities. Athletes and non-athletes alike may participate in campus organizations and/or maintain outside employment. In these ways, the measure of stress manifests similarly in both groups. Life stress and self-esteem appear to be negatively correlated; lower levels of stress act as buffers against depressive symptoms, which can in turn raise self-esteem, and vice-versa. In the athlete sample, this relationship was indeed present: lower levels of stress were predictive of higher levels of self-esteem. In contrast, this same predictive measure was not evident in the non-athlete sample. While not significantly different, non-athletes exhibited higher levels of overall stress than athletes. This suggests that although non-athletes may experience more daily life stressors, they may not be as significant as those experienced by athletes. A non-athlete does not incur stress from early morning practices, playoff elimination games, or conference championships. These uniquely stressful situations can only appeal to athletes, which may explain the more predictive nature of stress for such a student.

A third factor related to self-esteem that was examined in this study was alcohol use. A common factor in college life, this variable appeared significantly differently in athletes and non-athletes, with athletes found to be at greater risk for alcohol abuse. While zero participants were found to be alcohol dependent (obtaining a score greater than or equal to seven) using the SMAST, more problematic drinking trends were found in the athlete sample. These results are in-line with previous research regarding alcohol and athletics (Aries, McCarthy, Salovey, & Banaji, 2004; Brenner & Swanik, 2007). However, alcohol use was not found to be predictive of self-esteem in this study. This indicates that alcohol does not play an important role in how one feels about oneself, although its relationship to athletes is striking.
The final factor related to self-esteem that was examined in this research was body image. Results confirmed that athletes maintained significantly higher levels of body esteem than did non-athletes. This factor was also found to be the most predictive variable in terms of self-esteem for both athletes and non-athletes. This study concludes that body image and self-esteem go hand-in-hand. This then gives credence as to why self-esteem was found to be higher in the sample of athletes. Optimally, athletes are physically fit and healthy from competition in their sport. Exercise and conditioning from sport should create a body that is desirable in today’s society (one that is muscular and lean). As regression analyses show, this body esteem score is predictive of overall self-esteem, and higher body esteem scores were found more often in athletes. These findings support previous research conclusions that athletes maintain a more positive body image (Hausenblas & Symons Downs, 2001; Reinking and Alexander, 2005). Interestingly enough, body esteem was the only significant predictor of self-esteem in non-athletes. This suggests that non-athletes may put even more emphasis on how they look, and consequently; how that look makes them feel.

Limitations

This study had several limitations. One limitation was the demographic sample of participants. While the sample was relatively equal in terms of athlete (54%) and non-athlete (46%) representation, it was severely skewed in terms of gender and ethnicity. In total, there were 65 (69%) female participants and 29 (31%) male participants, and the sample was over 80% Caucasian. The representativeness of this sample may have especially affected the results in terms of body image, as females have been found to be harsher critics of their bodies and show greater eating disturbances (Sira & White, 2010). A more representative sample would have been ideal for this study.
A second limitation was the representation of the institution’s sports teams in the athlete sample. The initial goal was to obtain participants from all of the varsity sports the institution sponsors. With 16 Division III sports, there were over 400 athletes that could have been recruited for the study. However, due to scheduling conflicts, time constraints, and coaching interests, the researcher was not able to hold recruiting sessions for all of the teams. Recruitment sessions were held for men’s basketball, men’s tennis, women’s basketball, women’s rowing, and women’s volleyball. Through the psychology research database, representation was obtained for football, men’s rowing, men’s soccer, men’s track and field, women’s cross country, women’s soccer, softball, and women’s tennis. There was no representation of baseball and men’s cross country. Equal representation of all teams would have been preferred.

Another possible limitation of this study was the time of year during which data was collected. Data for this study was collected in Spring 2013, during which the baseball, softball, men’s and women’s rowing, men’s and women’s track and field, and men’s and women’s tennis teams were in-season (i.e., participating in athletic competition). These teams were more difficult to recruit, simply because they had busier schedules during this time. The time of year may have also impacted how stressed the athletes were (if they were in-season or not), which could have significantly affected their responses on the SLSI. Optimally, Spring athletes would have been recruited in the Fall, and vice-versa. Elimination of each of these limitations would significantly improve the external validity of this study.

**Future Directions**

Future directions for this research are widespread. This research question persists; even though athletic status was not found to be a predictor for self-esteem, athletes still maintain higher levels of self-esteem than their non-athlete peers. The reason for this has yet to be
determined. Clearly, body image and esteem plays a larger role than previously realized. The key factor may be exercise. Eventually, this hypothesis could be tested not only through sport participation, but by exercise alone, and manipulated as such. For example, there may have been multiple participants in the current study who were regular exercisers but did not participate in athletics. Such participants may have maintained greater body esteem and overall self-esteem because of this. Evaluating the potential relationship between exercise and self-esteem would be a logical next step. This could better highlight the potential for self-esteem improvement in populations of regular exercisers.

Another next logical step would look in greater detail on the impact of gender in these findings. The predictive model for self-esteem may change between males and females. One may also use the subscale scores of the BES to better evaluate overall body esteem in both males and females (i.e., score males on the components of physical attractiveness, upper body strength, and physical condition; and score females on the components of sexual attractiveness, weight concern, and physical condition). If differences were found on these measures, another valid research question could be proposed.

Additionally, this same research could be completed at a larger institution (i.e., Division I and Division II athletic programs) and could confirm or disconfirm these results. Through this continued research can self-esteem be bolstered and health and well-being be improved in young adults.
References


INFORMED CONSENT FOR PARTICIPATION IN PSYCHOLOGY STUDY

**Title of Research:** Differences in Self-Esteem between Division III Collegiate Athletes and Non-Athletes

**Principal Investigator:** Caitlin Cornell, cfc001@marietta.edu

**What is the purpose of this research study?**

The purpose of this research is to investigate self-esteem and related factors in self-identified collegiate athlete and non-athlete students at this institution. This research study has been approved by the Marietta College Human Subjects Committee.

**How many participants will take part in this study?**

Approximately 88 Marietta College students will participate in this study.

**How long will your part in the study last?**

This study should take no longer than 40 minutes. Psychology students will receive 1 hour of credit towards your class research participation requirement. Participants will be debriefed following the conclusion of the study.

**What will happen if you take part in the study?**

During the course of this study, you will be asked to complete four questionnaires assessing self-esteem, body image, levels of stress, and alcohol use. You will also be asked to provide demographic information including (but not limited to) your gender, age, race, education, major, and grade point average. Anonymity in your responses will be ensured, as you will only be signing your name on this document, and it will be kept separate from the questionnaires. Please be aware that you will be asked questions about sensitive topics, including (but not limited to) body size and shape, bodily functions, suicidal thoughts or actions, domestic violence, and substance use/abuse.

**What are the possible risks and/or benefits from being in this study?**

A possible risk resulting from this study is that you may feel anxiety, distress, and/or discomfort when disclosing information regarding personality characteristics, physical appearance, and frequency of high-risk behavior, including alcohol use. Benefits of participation include one research credit hour towards any psychology class requiring research participation, education about psychological research in general, and this topic in particular. You will also be entered into a drawing for a gift card to a local retailer following the completion of the study.
How will your privacy be protected?

The researcher will make every effort to protect your privacy. Your name will only appear on this informed consent form and in the records for the Marietta College Participant Pool (if you are participating for course credit). Your responses to the questionnaires are only associated with an assigned code number and are completely anonymous. The questionnaires will only be accessible to the researcher and stored separately from consent forms. All records will be destroyed within one year and all data collected will be used for research purposes only.

Voluntary Participation and Discontinuation of Participation:

Participation is completely voluntary. Refusal to participate will involve no penalty or loss of benefits or compensation to which the subject is otherwise entitled. The subject may discontinue participation at any time without penalty or loss of benefits.

Participant’s Agreement:

I have read the information provided above. I have asked all of the questions that I have at this time and I voluntarily agree to participate in this research study. I understand that I may contact Caitlin Cornell (cfc001@marietta.edu) with questions about the study, and Kemery Sigmund (kemery.sigmund@marietta.edu; 740-376-4788), Chair of the Human Subjects Committee, with questions about research participant rights.

_____________________________
Participant’s Signature

_____________________________
Printed Name of Participant and Date

_____________________________
Participant’s Email Address

_____________________________
Investigator Signature
Appendix B
Demographics Questionnaire

Gender (please circle): Male Female

Age: _______

Ethnicity (choose all that apply):
   _____ Asian or Pacific Islander
   _____ Asian Indian
   _____ Black/African-American
   _____ Caucasian/White (Non-Hispanic)
   _____ Native American
   _____ Latino/Hispanic
   _____ Other (Please Specify__________________)

Academic Standing: Freshman Sophomore Junior Senior Other

Major(s)/Minor(s):

Current GPA (estimated):

Academic Honors (scholarships, honorary memberships, etc.):

Are you currently a Marietta College Athlete?* Yes No

*You are considered a current athlete if you have/will participate(d) in a school-sponsored sport in the 2012-2013 academic year.

If yes, what sport? ________________________________
Appendix C
Rosenberg Self-Esteem Scale

Please read each question carefully and circle the most appropriate response.

1. I feel that I am a person of worth, at least on an equal plane with others.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

2. I feel that I have a number of good qualities.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

3. All in all, I am inclined to feel that I am a failure.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

4. I am able to do things as well as most people.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

5. I feel I do not have much to be proud of.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

6. I take a positive attitude toward myself.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

7. On the whole, I am satisfied with myself.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

8. I wish I could have more respect for myself.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

9. I certainly feel useless at times.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

10. At times I think that I am no good at all.
    - Strongly Agree
    - Agree
    - Disagree
    - Strongly Disagree
Appendix D
Body Esteem Scale

On this page are listed a number of body parts and functions. Please read each item and indicate how you feel about this part or function of your own body using the following scale:

1 = Have strong negative feelings
2 = Have moderate negative feelings
3 = Have no feeling one way or the other
4 = Have moderate positive feelings
5 = Have strong positive feelings

1. body scent _____
2. appetite _____
3. nose _____
4. physical stamina _____
5. reflexes _____
6. lips _____
7. muscular strength _____
8. waist _____
9. energy level _____
10. thighs _____
11. ears _____
12. biceps _____
13. chin _____
14. body build _____
15. physical coordination _____
16. buttocks _____
17. agility _____
18. width of shoulders ____

19. arms ____

20. chest or breasts ____

21. appearance of eyes ____

22. cheeks/cheekbones ____

23. hips ____

24. legs ____

25. figure or physique ____

26. sex drive ____

27. feet ____

28. sex organs ____

29. appearance of stomach ____

30. health ____

31. sex activities ____

32. body hair ____

33. physical condition ____

34. face ____

35. weight ____
Appendix E
Student-life Stress Inventory

Please read each question carefully and circle the most appropriate response.

Which describes your current overall level of stress?

| Mild | Moderate | Severe |

As a student:

I have experienced frustrations due to delays in reaching my goals.

| Never | Rarely | Sometimes | Often | Most of the Time |

I have experienced daily hassles which affected me in reaching my goals.

| Never | Rarely | Sometimes | Often | Most of the Time |

I have experienced lack of sources (money for auto, books, etc.).

| Never | Rarely | Sometimes | Often | Most of the Time |

I have experienced failures in accomplishing the goals that I set.

| Never | Rarely | Sometimes | Often | Most of the Time |

I have not been accepted socially (became a social outcast).

| Never | Rarely | Sometimes | Often | Most of the Time |

I have experienced dating frustrations.

| Never | Rarely | Sometimes | Often | Most of the Time |

I feel I was denied opportunities in spite of my qualifications.

| Never | Rarely | Sometimes | Often | Most of the Time |

I have experienced conflicts which were:

Produced by two or more desirable alternatives.

| Never | Rarely | Sometimes | Often | Most of the Time |

Produced by two or more undesirable alternatives.

| Never | Rarely | Sometimes | Often | Most of the Time |
Produced when a goal had both positive and negative alternatives.

| Never | Rarely | Sometimes | Often | Most of the Time |

**I experienced pressures:**

As a result of competition (on grades, work, relationships with [significant other] and/or friends).

| Never | Rarely | Sometimes | Often | Most of the Time |

Due to deadlines (papers due, payments to be made, etc.).

| Never | Rarely | Sometimes | Often | Most of the Time |

Due to an overload (attempting too many things at one time).

| Never | Rarely | Sometimes | Often | Most of the Time |

Due to interpersonal relationships (family and/or friends, expectations, work responsibilities).

| Never | Rarely | Sometimes | Often | Most of the Time |

**I have experienced:**

Rapid unpleasant changes.

| Never | Rarely | Sometimes | Often | Most of the Time |

Too many changes occurring at the same time.

| Never | Rarely | Sometimes | Often | Most of the Time |

Change which disrupted my life and/or goals.

| Never | Rarely | Sometimes | Often | Most of the Time |

**As a person:**

I like to compete and win.

| Never | Rarely | Sometimes | Often | Most of the Time |

I like to be noticed and be loved by all.

| Never | Rarely | Sometimes | Often | Most of the Time |
I worry a lot about everything and everybody.

Never          Rarely          Sometimes       Often       Most of the Time

I have a tendency to procrastinate (put off things that have to be done).

Never          Rarely          Sometimes       Often       Most of the Time

I feel I must find a perfect solution to the problems I undertake.

Never          Rarely          Sometimes       Often       Most of the Time

I worry and get anxious about taking tests.

Never          Rarely          Sometimes       Often       Most of the Time

**During stressful situations, I have experienced the following:**

Sweating (sweaty palms, etc.).

Never          Rarely          Sometimes       Often       Most of the Time

Stuttering (not being able to speak clearly).

Never          Rarely          Sometimes       Often       Most of the Time

Trembling (being nervous, biting fingernails, etc.).

Never          Rarely          Sometimes       Often       Most of the Time

Rapid movements (moving quickly, from place to place).

Never          Rarely          Sometimes       Often       Most of the Time

Exhaustion (worn out, burned out).

Never          Rarely          Sometimes       Often       Most of the Time

Irritable bowels, peptic ulcers, etc.

Never          Rarely          Sometimes       Often       Most of the Time

Asthma, bronchial spasm, hyperventilation.

Never          Rarely          Sometimes       Often       Most of the Time
Differences Athletes Non-Athletes

Backaches, muscle tightness (cramps), teeth-grinding.

Never  Rarely  Sometimes  Often  Most of the Time

Hives, skin itching, allergies.

Never  Rarely  Sometimes  Often  Most of the Time

Migraine headaches, hypertension, rapid heartbeat.

Never  Rarely  Sometimes  Often  Most of the Time

Arthritis, over-all pains.

Never  Rarely  Sometimes  Often  Most of the Time

Viruses, cold, flu.

Never  Rarely  Sometimes  Often  Most of the Time

Weight loss (can't eat).

Never  Rarely  Sometimes  Often  Most of the Time

Weight gain (eat a lot).

Never  Rarely  Sometimes  Often  Most of the Time

**When under stressful situations, I have experienced:**

Fear, anxiety, worry.

Never  Rarely  Sometimes  Often  Most of the Time

Anger.

Never  Rarely  Sometimes  Often  Most of the Time

Guilt.

Never  Rarely  Sometimes  Often  Most of the Time

Grief, depression.

Never  Rarely  Sometimes  Often  Most of the Time
**When under stressful situations, I have:**

Cried.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

Abused others (verbally and/or physically).

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

Abused self (used drugs, etc.).

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<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

Smoked excessively.

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<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

Was irritable towards others.

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<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
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</table>

Attempted suicide.

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<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
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</table>

Used defense mechanisms.

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<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
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</table>

Separated myself from others.

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<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

**With reference to stressful situations, I have:**

Thought about and analyzed how stressful the situations were.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>

Thought and analyzed whether the strategies I used were most effective.

<table>
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<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the Time</th>
</tr>
</thead>
</table>
Appendix F
Short Michigan Alcoholism Screening Test

Please read each question carefully regarding personal alcohol consumption and circle the most appropriate response.

1. Do you feel you are a normal drinker? (By normal, we mean you drink less than or as much as most other people.)
   
   Yes   No

2. Does your wife, husband [girlfriend, boyfriend], a parent, or other near relative ever worry or complain about your drinking?
   
   Yes   No

3. Do you ever feel guilty about your drinking?
   
   Yes   No

4. Do friends or relatives think you are a normal drinker?
   
   Yes   No

5. Are you able to stop drinking when you want to?
   
   Yes   No

6. Have you ever attended a meeting of Alcoholics Anonymous?
   
   Yes   No

7. Has drinking ever created problems between you and your wife, husband [girlfriend, boyfriend], a parent, or other near relative?
   
   Yes   No

8. Have you ever gotten into trouble at work [school, in a sport or organization] because of drinking?
   
   Yes   No

9. Have you ever neglected your obligations, your family, [schoolwork, team, organization] or your work for two or more days in a row because you were drinking?
   
   Yes   No
10. Have you ever gone to anyone for help about your drinking?
   
   Yes  No

11. Have you ever been in a hospital because of drinking?
   
   Yes  No

12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
   
   Yes  No

13. Have you ever been arrested, even for a few hours, because of other drunken behavior?
   
   Yes  No
Appendix G
Debriefing Statement

DEBRIEFING STATEMENT

Thank you for your participation in this research on self-esteem in students at Marietta College. The goal of this research is to determine if there are intrinsic differences between athletes and non-athletes on the basis of self-esteem and through the evaluation of other factors known to influence self-esteem (academic ability, body image, life stress, and alcohol use). We expect to find that athletes will maintain higher levels of self-esteem because they self-identify as such; all other factors measured should appear similarly in athletes and non-athletes alike.

During this research, you were asked to evaluate your personal feelings about yourself and your body. You were also asked to assess how stressful your life is and how you may or may not use alcohol and other substances. While these measures were invasive, they will help in determining what affects the self-esteem levels of other college students like you. In completing this research, you have assisted the researcher gain better insight into the lives of collegiate athletes and other students around the country.

The Michael J. Harding Center for Health and Wellness is an integrated wellness center offering services in three areas: Health Services, Counseling & Psychological Services, and Sexual Assault Prevention. The facility is located in Harrison Hall. Its mission is to provide high quality medical and psychological services as to achieve and/or maintain a healthy lifestyle for each student and to create a learning environment that supports that status. You may contact the center at (740) 376-4477.

If you have questions right now, please ask. If you have additional questions later, you may contact the researcher at cfc001@marietta.edu. You may also contact the faculty member who supervises this research, Ryan K. May, at maye@marietta.edu.

You will be contacted via email if your name has been chosen for the gift card drawing. Thank you again for your time and participation.
Appendix H
Sample Recruiting Letter

Dear [Coach Name],

My name is Caitlin Cornell, and I am a graduate student of the Psychology Department here at Marietta College. I am currently completing my thesis research, which looks to measure differences in self-esteem between collegiate athletes and non-athletes. I am contacting you because I am interested in recruiting your athletes for this study. I feel that the responses of the [team name] will be exceptionally helpful in determining how other student-athletes, both at this institution and others, perceive and feel about themselves.

As a former athlete at Marietta, I understand the time constraints that you and your athletes are under, in between practices, games, etc. I am happy to work around your schedule as a team and can be available as necessary. I would like to speak to the entire team if possible to inform them of my study, and then give them opportunities to sign up to participate in the study at a later date. The recruiting session in total should take no more than 15 minutes. The responses of the team are valuable, and I will strive to make this process as convenient as possible for the coaching staff and the athletes.

For my results to be significant, I will require a fairly large number of participants to complete my study. I hope that the [team name] is able to contribute to this body of work. Please do not hesitate to contact me with questions or for further information. I thank you for your time and consideration, and I look forward to hearing from you soon.

Sincerely,

Caitlin F. Cornell
cfc001@marietta.edu
Table 1

*Independent samples t tests of Self-Esteem, Grade Point Average, Body Image, Life Stress, and Alcohol Use in Athletes and Non-Athletes*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Athlete μ (SD)</th>
<th>Non-Athlete μ (SD)</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>23.49 (4.56)</td>
<td>20.70 (3.96)</td>
<td>92</td>
<td>3.14</td>
<td>.002</td>
</tr>
<tr>
<td>GPA</td>
<td>3.11 (.436)</td>
<td>3.29 (.467)</td>
<td>92</td>
<td>-1.92</td>
<td>.058</td>
</tr>
<tr>
<td>Body Image</td>
<td>130.35 (18.72)</td>
<td>117.44 (17.52)</td>
<td>92</td>
<td>3.43</td>
<td>.001</td>
</tr>
<tr>
<td>Life Stress</td>
<td>133.45 (17.10)</td>
<td>140.58 (20.08)</td>
<td>92</td>
<td>-1.86</td>
<td>.066</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>1.16 (1.36)</td>
<td>.054 (1.22)</td>
<td>92</td>
<td>.231</td>
<td>.023</td>
</tr>
</tbody>
</table>

>Note. α = .05
Table 2

*Number (Percentages) of Participants who scored “High” on the Measure of Self-Esteem by Participant Group*

<table>
<thead>
<tr>
<th>Participant Group</th>
<th>n</th>
<th>Number of High Scores (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes</td>
<td>51</td>
<td>20 (39.2)</td>
</tr>
<tr>
<td>Non-Athletes</td>
<td>43</td>
<td>9 (20.9)</td>
</tr>
</tbody>
</table>