



**Bryant University**

HONORS THESIS

# Division I Female Student Athletes' Self-Image Perceptions and the Association with Photo Centric Social Media Platforms

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## **ABSTRACT**

The purpose of this study is to describe self-image (body image) perceptions of female, Division I student athletes and discover how photo centric social media platforms and the frequency of their use may shape these perceptions. Body image is a complex phenomenon influenced by many factors including peers, parents, coaches, and social constructs. In the general population, data has shown that media messages play a powerful role in shaping perceived self-image and body satisfaction. Body image may not match the actual body and the athlete may strive more often to achieve a body ideal. It is hypothesized that female athletes may be under the same cultural pressures as other women to weigh less even though female athletes want and need to be stronger. Although social media and photo centric media have been shown to influence young adult behavior, this project aims to discover whether there is an association between how a female athlete perceives her body image and how the use of social media may play some role in this.

## **INTRODUCTION**

I guess you could say I was doomed at birth. I came out of the womb at a whopping 10 pounds and 0 ounces. Ever since early childhood, I can confidently say that I have battled with my weight and self-confidence both on and off the field. When I turned 6 and my mom could finally sign me up for recreational sports in our small town in Ohio, and she took every opportunity that she could to do so. I think she was more nervous about my obesity than I was at this point in time. My career as a recreational athlete began with soccer in the fall, basketball in the winter, and softball in the summer. After practicing with the boy's teams and falling in love with the idea of sports, I also fell in love with this silly little game that you play on dirt. I asked my mom a few years ago why she signed me up for softball and she said so that I would lose weight.

Today, there are some days that I look back at her and laugh at this idea. She was right though; I needed to lose weight as a kid. In first grade through third grade, I was almost double the size of most girls, which led me to only hangout with the boys, who embraced my athleticism and tomboyish habits.

The whole idea of being an athlete was a construct that I could not get off of my mind for my entire youth. I loved the idea of being on a team, of being part of something bigger than myself. But as I watched all of my friends pursue their dreams of becoming lacrosse, basketball, and field hockey players, I began to look at myself differently. These girls were constantly fixated on how far they could run, how skinny their legs were, and how perfect their abs were; while I was trying to become more explosive and muscular in order to throw harder and hit the ball further. When I was in high school and these trends began, I was nowhere near resilient enough to realize that the way I looked was optimal for performance in my sport. I beat (and still beat) myself up for this on a day-to-day basis as a Division I softball player at Bryant University. There is a

certain personification of having a perfect body that comes along with being an athlete. People assume that you should have no physical flaws, that everything should be toned and defined, but that is not particularly the case.

Due to my childhood curse of obesity, I have always been acutely aware of how I look in the mirror, especially when compared to non-athletes, or athletes who participate in lean focused sports. These small mental breakdowns typically occurred when in the fitting room at the mall when normal clothing did not seem to fit my athletic body type correctly. When I would go shopping for new tops, it typically resulted in my arms not fitting into blouses or the waistband in my pants being too loose while my quads could not seem to breathe through the skin-tight fabric.

I have spent the last three years of my life as a college athlete, so consumed with the idea of shaping my body into the ones that I see on Instagram, but they are not those of athletes, they are bodies of girls who cannot pick up a ball and throw it 60 miles per hour, or bench press strange amounts of weight. I have spent countless amounts of dollars on herbal cleanses, detox teas, and other strange dieting materials that have only broken my bank account. I deprived my body of gluten for so many months that I can no longer consume the substance without a severe allergic reaction. I let the concept of my weight and physical appearance impact the way that I play the game that I was born to love.

All and all, it comes down to the fact that I love the sport that I play. On those days when I get so mad and caught up with myself because I do not look the same way as the rest of the student body, that little girl who was forced to play left-center field pops into my mind every time. She reminds me that if she was good enough to make it, I can too.

I decided to fully engage myself in this subject for the past year because softball, and the art of sport, has shaped me into the woman I am today. I have battled self-image issues ever since I was playing tee ball, and I know that I am not the only who has battled these self-image struggles. As our lives' have become more scrutinized through media, the portrayal of the 17-22-year-old women has also transformed. While scrolling through various social media feeds, I see very thin young women in "going out clothes," bikinis, and cocktail dresses seemingly happy, content, and having the time of their lives in their college years. Most, if not all, do not participate in college athletics. It is unclear whether they have a positive self-image; however, their physical presentation is consistent with societal norms. I hypothesize that the way women are portrayed through Instagram and through Snapchat impacts the way that the Female Student Athlete (F-SA) perceive themselves. I have lived it first hand, and I wanted to learn more about this phenomenon in order to describe its prevalence, and secondarily, to raise awareness about the psychological effects it has on F-SAs.

### Purpose

The purpose of my Senior Capstone Project is to learn more about NCAA Division I female student athletes (F-SA) and the way that we feel about our bodies as compared to societal norms, and specifically, how social media may influence this. The goal of this project was to obtain rich data that describes DI F-SA's perceived body image and to explore how body image and social media may be associated with the way that female athletes feel about themselves. The overall aim of this project is to raise awareness about female athletes and the body types that are required to obtain sport specific peak performance.

In order to obtain this data, an emphasis was placed on the following questions:

- How does weight lifting, agility training, and sport performance training influence the way that NCAA Division I F-SA perceive themselves in the mirror (perceived body image) as compared to societal norms?
- How do the stereotypes of certain sports (i.e. physical expectations and historical implications) impact, sexualize, and influence the way that F-SA feel about themselves? (mentally and physically)
- How does social media impact the way that F-SAs compare themselves to non-athletes, and is this associated with an increased use of social media in today's society?

## **REVIEW OF THE LITERATURE**

Some of the most significant pieces of research that apply to this study include the following:

- Competitive sports where performance depends on, or is judged, not only by skill or endurance, but also appearance, will more often show discrepancies between the actual and ideal body.<sup>1</sup>
- Female athletes seem to be under the same cultural pressures as other women to have a socially desirable body image.<sup>2</sup>
- Young adults (18-25) spend more time with media and technology than any other activity and this medium drives social interaction (social media).<sup>3</sup>
- Since 2001, social media has influenced the “beauty ideal.”<sup>4</sup>

### **Body Image**

Once body image has been clearly defined and understood, the idea of body image concerns was a topic that needed further consideration. It is important to know that body image is an umbrella term that has the ability to capture a multitude of different constructs. These include, but are not limited to, the following: “weight (dis)satisfaction, body (dis)satisfaction, body shame, appearance (dis)satisfaction, appearance evaluation, body esteem, body appreciation, body

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<sup>1</sup> Julia R. Varnes, Michael L. Stollefson, Christopher M. Jennelle, Steven M. Dorman, Virginia Dodd, and M. David Miller. "A Systematic Review of Studies Comparing Body Image Concerns among Female College Athletes and Non-Athletes, 1997-2012," *Body Image: An International Journal of Research*, 423, Elsevier.

<sup>2</sup> Varnes et al., "A Systematic, 423.

<sup>3</sup> J. Mitchell Vaterlaus et al., "#Gettinghealthy: The perceived influence of social media on young adult behaviors," *Computers in Human Behavior*, December 23, 2014, 152, doi:10.1016/j.chb.2014.12.013.

<sup>4</sup> Varnes et al., "A Systematic," 427.



dysmorphia, and body schema.”<sup>5</sup> “Body image is a multidimensional construct encompassing how we perceive, think, feel, and act towards our bodies; it lies on a continuum from healthy body perceptions to unhealthy body perceptions.”<sup>6</sup> The most recent research conducted about athletes and body image has yielded minimal results about the relationship between athletic participation and body image, so this study aims in learning more about the body ideals linked to Division I Female Student Athletes. Body image concern (BIC) is another term that aids us in understanding the relationship between how athletes view themselves in the mirror. Body Image Concerns “are indicated by body size misperception and/or negative attitudes or feelings toward the human body and its appearance.”<sup>7</sup>

#### History of the Female Athlete:

The female athlete was finally really seen in the media during the 1996 Summer Olympics that took place in Atlanta, Georgia. The focus on the woman as an athlete had a greater presence than did the competitions in the past. Summer 1996 was the first Olympics in which the legacy of Title IX of the Education Act of 1972 was completely visible. Title IX states the following: “No person in the United States shall, on the basis of sex, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal Financial assistance”<sup>8</sup> Atlanta 1996 was the first time that viewers saw the

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<sup>5</sup> Julia R. Varnes et al., "A Systematic Review of Studies Comparing Body Image Concerns among Female College Athletes and Non-Athletes, 1997-2012," *Body Image: An International Journal of Research*, 422, Elsevier.

<sup>6</sup> Voelker, Dana K., Justine J. Reel, and Christy Greenleaf. "Weight Status and Body Image perceptions in Adolescents: Current Perspectives." *Adolescent Health, Medicine and Therapeutics*, 149-58.

<sup>7</sup> Julia R. Varnes et al., 422.

<sup>8</sup> "Title IX Frequently Asked Questions," NCAA, <http://www.ncaa.org/about/resources/inclusion/title-ix-frequently-asked-questions#title>.

female athlete as a rule and not as an exception.<sup>9</sup> Media coverage that had been adamant in divisions such as the WNBA and other national female sports had been incredible skewed before the '96 Olympics. The coverage typically focused more on the way that female athletes looked rather than on their skills, a theme that is still evident today. However, in past Olympics such as the 1984 and 1988 competitions, female athletes were viewed as women first, athletes second. Before the 1996 games began, Olympics expert Caro Oglesby had an interview with the Feminist Majority, where they specifically asked her about the media coverage for the upcoming games. Her response was as follows: "The media have been put on notice about their coverage of women—the amount of coverage and the characterization of that coverage. We can watch to see whether commentators refer to women athletes by their first names, while calling men Mr. so-and-so."<sup>10</sup> As the games began, reporters claimed that women made for the more interesting stories. The presence of the female athlete even prompted sports writer, Jere Longman to say: "because women have struggled so long and resolutely to overcome cultural, racial, and religious obstacles, their accomplishments carry a resonance particularly associated with the Olympics: sacrifice, struggle, elusive victory gained at great odds."<sup>11</sup> Longman continued with the following: "The 1996 Games will be remembered, no doubt, as the year women took over the Olympics,"<sup>12</sup> and this was just the beginning.

The 1996 Olympics Games served as a turning point for female athletes as a whole. Women were beginning to be featured on the covers of magazines such as *Newsweek* and *New York*

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<sup>9</sup> Leslie Heywood and Shari L. Dworkin, "Sport as the Stealth Feminism of the Third Wave," in *Built to Win* (n.p.: University of Minnesota Press, 2003), 27.

<sup>10</sup> Heywood and Dworkin, "Sport as the Stealth," 26

<sup>11</sup> Jere Longman, "How the Women Won," *The New York Times*, last modified June 23, 1996, <https://www.nytimes.com/1996/06/23/magazine/how-the-women-won.html>.

<sup>12</sup> Longman, "How the Women," *The New York Times*.

*Times*, photographers used the same lighting techniques as they did on men, and the first nude spread of female athletes was even published in *Life* magazine which featured both athleticism and beauty. There were numerous social forces that were responsible for these shifts that eventually ended up impacting women's advancement as a whole.

As the 1996 Olympics Games came to a close and this new and improved respect for female athletes was on the rise, audiences began to pay more attention to female participation in sports. The stereotypes of female athletes being "too masculine" or were assumed to be "dykes" were still (and still are) circulating throughout the population, but viewers were still captivated by this new wave of athleticism. When the 1999 World Cup rolled around, people wanted more. The USA Women's Soccer team victory led by sharpshooter Mia Hamn and Brandi Chastain only made people more curious about the rise of women's sports. These women set the stage for what was to come next. Third Wave Feminists has become a common term in communities everywhere in 2017. The third wave can be defined as: Attempts to expand feminism to include women with a diverse set of identities recognizing that women are of many colors, ethnicities, nationalities, religions and cultural backgrounds.<sup>13</sup> Third Wave Feminists also work to eliminate gender binaries and are more at ease with contradiction as a whole. This form of action has broadened goals as opposed to second wave feminists due to the fact that they embrace the LGBTQ community and abolish gender role expectations and stereotypes. Third wave feminism could not have come at a more convenient and pressing time with the rise of social media outlets such as Instagram and Facebook. As these forms of media have become commonplace for

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<sup>13</sup> "The Women's Movement," Lumen: Sociology, last modified 2017, <https://courses.lumenlearning.com/alamo-sociology/chapter/reading-the-womens-movement/>.

millennials, and college students in particular, stereotypes and body issue challenges have become incredibly prevalent. As this project takes a closer look into how social media has changed the way that Division I Female Student Athletes view themselves as compared to non-student athletes, it will become evident that more attention needs to be placed on mental health in this arena.

### Where Female Athletes Stand Today

As mental health continues to become a popular talking point for the NCAA research institute, and the NCAA as a whole, we begin to wonder where body image fits in to their focus on the F-SA as a whole. As of 2018, the NCAA states that mental health is an ongoing concern for athletes, but they only display resources for anxiety, depression, substance abuse, and eating disorders.<sup>14</sup> While all of these mental health issues are incredibly important, it is important to understand what the root cause of some of these diagnoses might be. With that said, body image remains a core aspect of mental and physical well-being.

ESPN Women has done an incredible job of raising awareness of the issue of eating disorders, body image frustrations, and confidence in athletes in all types of sports. According to the research, eating disorders continue to be a pressing problem for F-SAs. ESPN Women (espnW) featured a blog post by Oregon State Volleyball player, Lanesha Reagan, who has struggled with balancing being a student athlete, a young woman, and a role model all at the same time. The following excerpt better explains this phenomenon:

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<sup>14</sup> "Mental Health," NCAA, <http://www.ncaa.org/sport-science-institute/mental-health>

“Developing muscles to complement her athletic frame, Reagan longed to shrink into her friends' petite bodies and jump out of her own. She never felt comfortable in the tight jerseys, the spandex. She'd stare at herself in the mirror, disgusted, pinching her skin. She developed an eating disorder, a mix of anorexia and bulimia -- the latter became the bigger struggle. She ingested just enough Honey Nut Cheerios and Gatorade to survive practice. Yet she craved those two hours because she could jump and hit and block and not think about anything else.”<sup>15</sup>

Reagan has struggled with depression since middle school. Once she got to college and was competing on a national stage day in and day out, her old habits of self-harm and body shaming came full circle. An English major at Oregon State, she bravely posted an article to her blog titled “Being a Student-Athlete and Living with Mental Illness,” that not only made others aware of her struggles but allowed others to understand how the pressures of being an athlete add up. She talks about the formula that people often associate with student-athletes and how the expectations for them to look a certain way, perform at the highest levels, and do well in school, suddenly creates a recipe for failure. For example, “I can only speak for myself but being a student-athlete doesn't always give you the best reputation, people love you but people also love to find reasons to pick apart what you're doing. To a lot of people, student-athletes are seen as spoiled, so god forbid student-athletes have something to complain about.”<sup>16</sup> And perhaps that is why we do not speak up, because F-SA's should not feel insecure. As these issues have been observed, the NCAA is beginning to take the necessary measures to decrease them throughout athletes.

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<sup>15</sup> "Body Image Confidential," ESPN W, accessed May 19, 2017, [http://www.espn.com/espn/feature/story/\\_/id/19232937/espnw-body-image-confidential#!survey](http://www.espn.com/espn/feature/story/_/id/19232937/espnw-body-image-confidential#!survey).

<sup>16</sup> Lanesha Reagan, "Being a Student-Athlete and Living with Mental Illness," *Spectacular and Satirical* (blog), entry posted January 3, 2017, <https://spectacularandsatirical.com>.

According to the NCAA's health and safety division, disordered eating (which includes a range of problematic eating attitudes, behaviors and body image distortions) is prevalent in 25 percent of female collegiate athletes and 20 percent of male collegiate athletes competing in a wide range of sports.<sup>17</sup> The majority of these studies focus on aesthetic sports such as gymnastics, or other competitions where athletes are judged on their physical appearance, and do not focus on the more commonplace sports where the total athlete population is much larger. The NCAA has also defined six different sources of weight pressures which are defined in the chart below.<sup>18</sup>

Source of Weight Pressure	Example
Technical Demands of Sport	Achieving faster race times, higher flight patterns
Aesthetic Demands of Sport	Achieving grace, beauty, and long lines during performance
Rules or Conventions of Sport	Form-fitting or revealing athletic attire, team weigh-ins
Important Others	Critical comments from coaches, parents, judges, peers, or teammates about weight, shape, or body size
Media	Images of high level athletes that promote lean, tone, and stereotypically attractive bodies for sport
Societal Demands	Images of models that promote tall, thin, and stereotypically attractive bodies for society in general

Figure 1- NCAA Sources of Weight Pressure

<sup>17</sup> "Disordered Eating in Student-Athletes: Understanding the Basics and What We Can Do About It," NCAA, <http://www.ncaa.org/health-and-safety/nutrition-and-performance/disordered-eating-student-athletes-understanding-basics>.

<sup>18</sup> "Disordered Eating," NCAA.

Of the above terms, this research project will focus mainly on media, important others, and societal demands. In terms of the NCAA's plan to help resolve disordered eating in college athletes, they remain standard in their beliefs on creating awareness, and educating the parties involved. They also make mention of the athletic culture and how it has an impact on these issues. This culture begins with the athletic department and coaches and is then filtered down into the athletes themselves. All and all, body dissatisfaction within athletes is common for many reasons. From being held to such high standards to constantly wanting to be "perfect" in all areas of life, athletes need to not only raise awareness about these issues, but find ways to allow student-athletes to talk about it.

#### espnW Body Confidential

One of the preliminary studies that has been observed is one conducted by espnW. Their methodology was as follows: espnW anonymously surveyed 201 Division I Female Student-Athletes and asked them 13 questions about body image. These surveys were conducted in person and via an online survey platform, and respondents were asked to provide their height, weight, sport, and year in college. They then compiled per-sport results if the specific sport had more than 10 or more respondents.<sup>19</sup> The purpose of this study was to see whether or not elite athletes deal with body image issues in relation to becoming "too muscular" and being too worried about their weight. Some of the main findings include 68% of female athletes feeling pressure to be pretty, 32% of rowers have had an eating disorder, 52% of softball players have a teammate who has an eating disorder, 30% are afraid of becoming too muscular, and 48% of

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<sup>19</sup> "Body Image Confidential," espnW, accessed May 19, 2017, [http://www.espn.com/espn/feature/story/\\_/id/19232937/espnw-body-image-confidential#!survey](http://www.espn.com/espn/feature/story/_/id/19232937/espnw-body-image-confidential#!survey).

athletes wear makeup when they compete.<sup>20</sup> All of these statistics demonstrate the fact that social standards and the need to feel a certain way while also playing a sport, have impacted the way that female student athletes feel about themselves on and off the field.

While many professional athletes have begun campaigning about these issues, they remain pressing. For example, two-time USA gold medalist Jennie Finch stated the following about her body as a pitcher: "My arms, shoulders, height were always bigger, longer than everyone else's... My differences made me great. Muscle is gorgeous. It's strength and power. There's beauty in how we are individually build and created."<sup>21</sup> As a professional athlete who has experienced a successful college career, two Olympic appearances, and is now the mother of three, she has been able to notice the beauty behind muscle, but when you are fully engaged in the art of sport and team, it is difficult to step back and appreciate the bodies that these athletes have earned.

### Social Media

As social media continues to impact the general population, it also influences F-SAs via the Social Comparison Theory. This theory proposes that humans determine our own social and personal worth based on how we stack up against others.<sup>22</sup> As social media become more and more popular among young adults, comparisons become easier to make as people are constantly exposed to photos via these platforms. According to the research, "young adults (18-25 years

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<sup>20</sup> Body Image," espnW.

<sup>21</sup> Body Image," espnW.

<sup>22</sup> "Social Comparison Theory," Psychology Today, <https://www.psychologytoday.com/us/basics/social-comparison-theory>.



old) spend more time with media and technology daily than any other activity.”<sup>23</sup> This means that young women are facilitating a great deal of their social interactions via technological platforms and this has now become a part of normal daily living. In fact, “one of the most popular features afforded by these social platforms is photo sharing,” which only enhances the ability of athletes to compare themselves to non-athletes.<sup>24</sup> As young adults spend an increased amount of time viewing photos of others, it continues to change the way that they feel about themselves. Vaterlaus et al., states that “it is essential to identify the influence of technology use on health behaviors during young adulthood due to the potential salience of health behaviors and frequency of technology use during this time period of development.”<sup>25</sup>

The majority of research found that is related to body image and appearance-related social comparison has been constructed via Facebook, but this study will look into the media platforms utilized in 2018 which include a widespread use of Instagram and Snapchat. A previous study conducted by Fardouly & Vartanian in 2015 concluded that there is a “positive correlation between Facebook usage and body dissatisfaction.”<sup>26</sup> As this study seeks to learn more about this correlation, with inclusion of other photo centric social media platforms, it is important to note that female athletes seem to be under the same cultural pressures as women (non-athletes) to weigh less and look a certain way, even though female athletes strive to be stronger.<sup>27</sup>

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<sup>23</sup> J. Mitchell Vaterlaus et al., "#Gettinghealthy: The perceived influence of social media on young adult behaviors," *Computers in Human Behavior*, December 23, 2014, 151, doi:10.1016/j.chb.2014.12.013.

<sup>24</sup> Vaterlaus et al., "#Gettinghealthy: The perceived," 152.

<sup>25</sup> Ibid.

<sup>26</sup> Jasmine Fardouly et al., "Social Comparisons on Social Media: The Impact of Facebook on Young Women's Body Image Concerns and Mood," *Body Image* 13:[Page #], doi:10.1016/j.bodyim.2014.12.002.

<sup>27</sup> Regina C. Casper and Ellen Reed, "Body- and Self-Image in College Athletes," *Stanford Humanities Review* 6.2 (1998): 6-7.

## **RESEARCH METHODOLOGY AND APPROACH**

To obtain results for this project a descriptive, cross-sectional survey was utilized via Qualtrics after being approved by the Bryant University Institutional Review Board. The first survey sample was provided by a handful of softball players at Bryant University to be sure that the length fell under the time frame and to ensure that it would keep participants interested and honest. After a few changes throughout the test run, the survey was sent out to all Bryant Female Student Athletes and Female Student Athletes within the NEC Conference (The DI conference where Bryant competes). These schools include Central Connecticut State University, Farleigh Dickenson University, Sacred Heart, Long Island University at Brooklyn, Wagner College, Mount Saint Mary's, Saint Francis University (PA), Robert Morris University, and Saint Francis Brooklyn. After an initial database was established, the snowball effect became a useful tool, and the survey was then distributed to other Female SAs at The University of Pennsylvania, Brown University, and Wichita State University. Once I received the results of these surveys, I began to compile my data, clean the data, and make conclusions about the provided responses. A full version of the survey (without modifications) that was distributed to respondents can be found in *Appendix A*.

### **Sample**

When the 35-item investigator designed survey was closed on Qualtrics, the total number of respondents equaled 156 (N=156). This convenience sample included Female Student Athletes ranging from 17-22 years old. These athletes (79) came from Bryant University while the remaining 60 were from other Division I universities (nine total "other" institutions). Therefore,

approximately 57% of the respondents came from Bryant University while the remaining 43% of were from other Division I universities. The sample also included athletes from 13 different Division I sports (n=142). The age, university, and sport characteristics can be seen in greater detail in *Figure 2*.

*Demographic Characteristics (N = 156)*

Characteristic	Total (%)
Mean Age in years (range)	19.9 (17-22)
Mean total # years playing sport (range)	11.2 (3-19)
University (n=139)	
Bryant University	79 (56.8%)
Other	60 (43.1%)
Sport (n= 142)	
Basketball	18 (12.7%)
Cross Country	6 (4.2%)
Swimming/Diving	11 (7.7%)
Field Hockey	12 (8.4%)
Golf	1 (0.70%)
Gymnastics	6 (4.2%)
Lacrosse	18 (12.6%)
Softball	15 (10.5%)
Soccer	21 (14.7%)
Squash	4 (2.8%)
Tennis	3 (2.1%)
Track and Field	14 (9.9%)
Volleyball	13 (9.2%)

*Figure 2—Demographic Characteristics Table*

Survey and Scale

One of the main measurements that was used in this survey was the Social Physique Anxiety Scale originally conducted by Hart, Leary, and Rejeski in 1989. The original Social Physique

- 1 = Not at all characteristic of me
- 2 = Slightly characteristic of me
- 3 = Moderately characteristic of me
- 4 = Very characteristic of me
- 5 = Extremely characteristic of me

Anxiety Scale contained 12 items. The primary purpose of this scale was to measure social anxiety related to physique. The term physique can be referred to as the body's form and structure; specifically, body fat, muscular tone, and general body proportions. This tool will help aid me in seeing how the pressures placed on young people (female athletes in this case) are influential on ideal physique and how these are predominant social forces in today's society. This scale was used as a template and questions specific to the study were added to this model. The main purpose of this original scale was to observe how a failure to live up to these physique standards, whether real or imagined, may induce feelings that others are negatively evaluating one's physique.<sup>28</sup> The original Social Physique Anxiety Scale can be seen in *Appendix B*.

### Data and Analysis

The data was cleaned and analyzed using Excel and SPSS Version 25. Data were analyzed using descriptive statistics (mean, standard deviation, frequency, distribution, percentages, and Pearson correlation coefficient). The final version of the modified scale that was used in this study contained 19 items (2 items were deleted for the analysis making this a 19 item scale), 3 of which required reverse coding in order to follow the scoring needed to define the dependent

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<sup>28</sup> "Social Physique Anxiety Scale (SPAS)," Measurement Instrument Database for the Social Sciences, accessed May 22, 2017, <http://www.midss.org/content/social-physique-anxiety-scale-spas>

variable. Examples of the modified statements that can be seen in *Figure 3*. After utilizing this modified scale, expressed via the ranking method shown above, the dependent variable of this study was defined as Perceived Body Image. This can be expressed as the perception in which F-SAs view the aesthetics of their own body. The higher the score, the more negatively these athletes felt about their perceived body image. The mean total score was a 2.66 (.745), with a range of 1.21-4.37. With further analysis, it was concluded that a participant with a score of 3 or above is said to have a worse (or more negative) body image and can be classified as a concern when it comes to how they see themselves in the mirror.

**Q29-4.** I oftentimes find myself consumed with the way that my body looks

**Q29-5.** I like the way that my sport specific muscle makes me feel in social settings

**Q29-8.** I often feel as though I am battling two different ideals: being female and being an athlete

**Q29-9.** I regret playing Division I athletics, because my body would conform to societal norms if I did not.

**Q29-11.** When in a bathing suit, I feel self-conscious about the way my body looks compared to others.

**Q29-17.** I compare my body to non-athlete's bodies on Instagram (or other social media platforms)

**Q29-19.** I am comfortable with how fit my body appears to others.

*Figure 3—Example Statements from Modified Scale*

## DISCUSSION

### Social Media Use

When asked “how often do you use the following forms of social media?” Instagram and Snapchat were the most prevalently utilized social media platforms. Of the 155 respondents (90%) said they frequently or very frequently use Instagram, while 90% also frequently use Snapchat (as seen in *Figure 4*).

#	Field	Choice Count
1	1-5 times per day	7.74% 12
2	6-10 times per day	28.39% 44
3	11-15 times per day	32.90% 51
4	16 or more times per day	30.97% 48

*Figure 4 – Results: How many times do you check your social media a day?*

Facebook on the other hand was only frequently or very frequently used by 51% of the sample (n=153). This analysis shows the relevance of photo centric media because both Instagram and Snapchat are made up of mostly photographs with limited verbiage, increasing F-SA’s exposure to photographs of both athletes and non-athletes.

The following question prompted respondents to answer how many times they check their social media each day. Of the 155 respondents, 52 (32.90%) claimed to check their social media 11-15

times per day, while 48 (30.97%) checked these platforms 16 or more times per day. This then means that 63% of participants check their social media anywhere from 11-16 times per day. The indications provided prove that social media is continuing to be an integral piece of the F-SA's daily habits.

### Situational Frustration

Field	Never	Very Rarely	Occasionally	Frequently	Very Frequently
In the locker room	24.00% 36	35.33% 53	28.67% 43	9.33% 14	2.67% 4
In a fitting room at the mall	10.67% 16	19.33% 29	30.00% 45	28.67% 43	11.33% 17
In the bathroom mirror	7.33% 11	18.00% 27	34.67% 52	26.67% 40	13.33% 20
In the training room	26.67% 40	38.00% 57	25.33% 38	8.00% 12	2.00% 3

*Figure 5 -- Responses to: In the following situations, when do you feel the most upset or frustrated?*

Question 21 asked participants to answer the following question: “In the following situations, when do you feel the most upset or frustrated?” and then offered four different scenarios. Two of these scenarios (in the locker room and in the training room) yielded a low response rate. 36 (24%) of respondents stated that they never felt upset or frustrated about their bodies in the locker room, while 40 (26.67%) stated that they never feel upset or frustrated in the training room. In both of these scenarios in particular, F-SAs are surrounded by similar people. These like bodies therefore provide higher amounts of confidence for F-SAs and do not cause them to compare themselves to others. On the contrary, when asked the same questions about how they feel in a fitting room in the mall or in the bathroom mirror, the responses were quite different. Of

the 150 (n=150) respondents, 43 (28.67%) said that they feel frustrated or upset in a fitting room at the mall while 40 (26.67%) felt similar emotions when looking in the bathroom mirror.

Greater percentages of frustration in these situations shows that there is a worse perception of self-body image and that F-SAs are more frustrated and upset with their body image when surrounded by people who are not similar to them or when they are looking at their own reflection in the mirror. Although we cannot draw conclusions from these percentages, they are consistent with the literature in regards to college athletics and body image. The greatest finding from this question was that when one is by self or around non-athletes, they feel differently about themselves as compared to when they are around similar persons with like body types.

#### Athlete versus Non-Athlete Body Comparisons

One of the initial research questions that was posed for this study was in relation to how Division I Female Student Athletes compare their bodies to non-athletes. In order to learn more about his relationship, Question 26 asked: How often do you find yourself comparing your body to non-athlete's bodies? This question ended up producing

one of the most interesting and meaningful findings in the study, and the responses can be seen in the table to the right. According to a Pearson R correlation (a correlation ran between the body image scale and the dependent variable of Perceived Body Image and item 26), 45% of F-SA respondents selected that they compare themselves

#	Answer	%	Count
1	Never	8.00%	12
2	Very Rarely	20.67%	31
3	Occasionally	26.67%	40
4	Frequently	26.00%	39
5	Very Frequently	18.67%	28
	Total	100%	150



to non-athlete bodies either frequently or very frequently. Interestingly enough, this correlation was statistically significant at a .01 level which can be further recognized in *Figure 5*.

	<b>Body image_COMP</b>	<b>Compare_non-athletes</b>
<b>Bodyimage_COMP</b>		
Pearson Correlation	1	.751**
Sig (2-tailed)		.005
N	150	150
<b>Compare_non-athletes</b>		
Pearson Correlation	.751**	1
Sig (2-tailed)	.005	
N	150	150

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

*Figure 6 – Pearson R Correlation for Body Image and Comparison to Non-Athletes*

*Appendix C*, the correlation matrix, of these two variables also offers important insight to this concept. This matrix highlights key variables of interest according to the specific aims of this study. As we can see, there were very small relationships between body image and social media (including frequency of use), and these results therefore showed no significant significance.

Although there might be significance between those two variables, there is a relationship to body image and the comparison to a non-athlete. As mentioned in the previous section (in reference to Question 21), there is a relationship between perceived self-image and seeing oneself in the mirror. This proves to be significant in relation to the total body image scale. This question, along with the results collected from this subject, also brings awareness into the embodiment of F-SAs. From a sociological standpoint, “embodiment usually refers to how the body and its interactive processes, such as perception or cultural acquisition through the senses, aid, enhance

or interfere with the development of human functioning.”<sup>29</sup> This is an indication that can be observed when looking into the comfortability that F-SAs feel when surrounded by like figures (in the locker room and in the training room), versus when they are surrounded by non-athletes or looking at their own reflection in the mirror.

### Ideal Body Image and Shape

In Question 23, F-SAs were asked to describe their ideal body shape via a quantitative question and were also prompted to provide qualitative responses about their ideal body shape. The quantitative responses can be seen below in *Figure 6*, but 48% of participants responded that their ideal body shape is tall and lean. When both of the options that included the word *lean* (“Tall and Lean” and “Short and Lean”) were calculated together, 64.5% of respondents selected the one of these options. With that being said, it can lead to a conclusion that no matter what type of muscle is needed for a F-SA to reach peak performance, 64.5% of this sample is either yearning for a lean body shape, or admiring those women who, in their eyes, have achieved this ordeal.

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<sup>29</sup> R. Finnegan, "Glossary of Multimodal Terms," NCRM, last modified 2018, <https://multimodalityglossary.wordpress.com/embodiment/>.

Q23 - What is your ideal body shape?

Page Options ▾

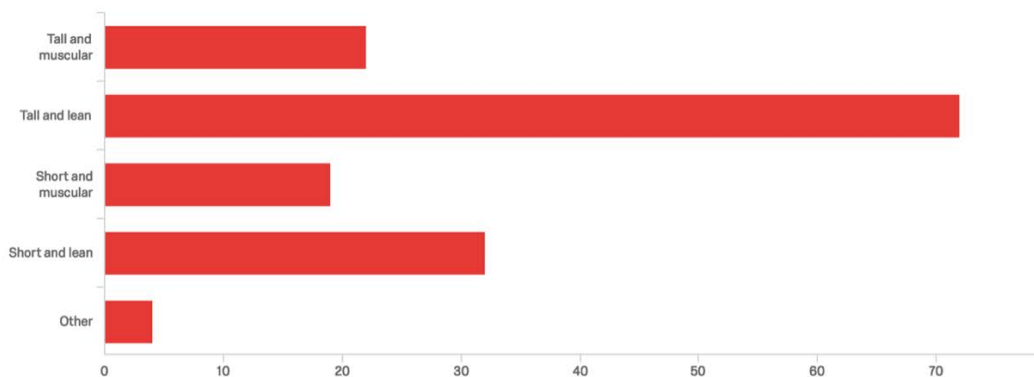


Figure 7 – Responses to Q23: What is your ideal body shape?

In order to supplement the quantitative data found in Q23, qualitative data was collected when asked a similar question: “when you think of a woman with the ideal body, who is it, or what do they look like?” This data was collected via an open response question in the Qualtrics survey where there were no character or word limit restrictions to the participant’s answer. This resulted in 102 responses (51%) that all included tall and lean, or skinny body ideals. A few examples of these qualitative answers include:

- Model
- Skinny all over
- Slim
- Tall and lean
- Instagram model

These responses were therefore consistent with social media data. The majority of participants responded with skinny and feminine ideals, even though they themselves are athletes. With a

continual increase of exposure to photo centric social media platforms, it is clear that a tall and lean, or skinny, body shape is ideal and appealing to society. This conclusion is also consistent with Hoag's study (2012): "studies at the highest competition level (Division I) noted that athletes have similar sociocultural attitudes related to thin-ideal internalization, perceived media pressure, and using the media as a source of beauty information."<sup>30</sup> This point is important when recognizing that 23% (n=146) of respondents to this survey feel as though they are battling two different ideals: being female and being an athlete. While the total sample of this study appeared to have moderately positive body image, it is important to note that "the desire to look athletic might protect some F-SAs from body size dissatisfaction, despite their similar attitudes regarding sociocultural variables."<sup>31</sup>

### Limitations

There are several important limitations to this study. First, this study was conducted via a convenience sample and is therefore cross-sectional data. Second, the survey lacked psychometric validity and reliability, limiting the strength of what it was intending to measure. Third, the study's results cannot be generalized to all NCAA female athletes across divisions (Division II and Division III). Additionally, these results are suggestive and are not representative of Division I Female Student Athletes as a whole.

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<sup>30</sup> Varnes, et al., "A Systematic," 428.

<sup>31</sup> Ibid.

## **CONCLUSION**

The total sample (N=156) generally appeared to have a moderately positive body image, as determined by the Total Body Image Scale. This conclusion can also be supported by Question 30 of the survey where participants were asked to describe Division I Female Student Athletes in three words via an open-ended response form. This question yielded responses such as: strong, powerful, committed, confident, determined, hard-working, driven, dedicated, and tough. All of these most frequently occurring qualitative statements were positive and encouraging. The study concluded that there were very small relationships that existed between social media use and frequency with perceived body image score, making them not statistically significant. An important relationship to note is that of F-SAs having higher frustration with body image (the reflection in the mirror and in the fitting room at the mall) and body image because it showed to be statistically related to worse perceived body image. Data also suggest that participants are less frustrated with their body image when surrounded by “like” groups of people; for example, when athletes are in the locker room and in the athletic training room. This study also showed that there is a statistically significant relationship between perceived body image and comparison to non-athlete bodies, meaning that those with worse body image perceptions more frequently compare themselves to non-athlete’s bodies. Looking forward, it is pertinent that the NCAA and the coaches of all Division I female athletics programs take mental health just as seriously as they do winning games. Student Athlete mental health is more than anxiety, depression, substance abuse, and eating disorders. In fact, body image remains a core aspect of mental and physical well-being, and it is critical that those in leadership positions continue to see seek the necessary steps to support and guide female student athletes who are struggling to get over any type of barrier created by mental health concerns. Lastly, a single item question: “how often do

you find yourself comparing yourself to non-athlete's bodies," may allow coaches to screen for body image concerns and properly refer athletes to follow up before it is too late. By taking the proper measures to ensure mental health, coaches and athletes can only hope to reach peak performance without distractions from social media.

## **APPENDICIES**

### **Appendix A: Survey Items**

There are two parts to this survey. The first part is investigator designed. It has four domains including: social media (SM), exercise (E), body image (BI), and weight (W). The second part of the survey is adapted from the Social Physique Anxiety Scale and includes 21 items. Finally, two short response questions at the end of the survey. In total, the survey should take no more than 15 minutes to complete.

#### **Demographics**

- **University**
- **Age**
- **Sport**
- **Years playing sport**

(SM)Check all types of social media you use:

#### Facebook

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

#### Instagram

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

#### Snapchat

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

(SM)Which **ONE** type of social media do you use most often?

Facebook

Instagram

Snapchat

Other?

**(SM)How often do you check your social media?**

\_\_\_\_\_ **times a day**

YES/NO

(E) Do you own a Fitbit, AppleWatch, or other fitness tracker?

If yes, do you wear it everyday?

Yes/no

(N) How many times a day do you to eat a full, well balanced meal?

\_\_\_\_\_ times per day

(N) Do you track your food intake (ie. Macros or calories)

- If yes, do you do this in order to maintain muscle or lose weight?
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently

(W) How often do you step on a scale?

- Once a day
- Twice a day
- Once a week
- A few times a week
- Once every few months
- Never

(W) When in the off-season, I train to \_\_\_\_\_

- Lose weight
- Get stronger

(W) Have you ever participated in a weight loss program such as Isagenix 30-day challenge, Advocare 24 day challenge, Shakeology, or other, in order to lose weight?

If so, which one?



(BI) At what part of your season do you feel the most physically fit?

- Pre-season
- Right before conference play begins
- During conference play
- Post-season
- Off-season

(BI) At what part of your season do you feel the least physically fit?

- Pre-season
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently
- Right before conference play begins
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently
- During conference play
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently
- Post-season
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently
- Off-season
  - o 1 Never
  - o 2 Very rarely
  - o 3 Occasionally
  - o 4 Frequently
  - o 5 Very Frequently

(BI) At what part of the season do you find yourself being the happiest with your body?

- Pre-season
  - o 1 Never
  - o 2 Very rarely

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*Senior Capstone for Logan Paul*

- 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- Right before conference play begins
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- During conference play
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- Post-season
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- Off season
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently

(BI) When do you find yourself being the most upset or frustrated with your body?

- In the locker room
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- In a fitting room at the mall
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently
- In the bathroom mirror
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally

- 4 Frequently
  - 5 Very Frequently
- In the training room
  - 1 Never
  - 2 Very rarely
  - 3 Occasionally
  - 4 Frequently
  - 5 Very Frequently

(BI) How would you describe your current perceived body image?

Tall and muscular

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

Tall and lean

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

Short and muscular

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

Short and lean

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

Defined muscle

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

Bulky

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently

- 5 Very Frequently

(BI) What is your ideal body image?

- Tall and muscular
  - High
  - Moderate
  - Low
- Tall and lean
  - High
  - Moderate
  - Low
- Short and muscular
  - High
  - Moderate
  - Low
- Short and lean
  - High
  - Moderate
  - Low
- Defined Muscle
  - High
  - Moderate
  - Low

(BI) What is the most challenging part of being a female student athlete?

- Social constructs
  - 1
  - 2
  - 3
  - 4
  - 5
- Time management
  - 1
  - 2
  - 3
  - 4
  - 5
- Team drama
  - 1
  - 2
  - 3
  - 4
  - 5
- Coaching

- 1
  - 2
  - 3
  - 4
  - 5
- Balance
- 1
  - 2
  - 3
  - 4
  - 5

(BI) Do you find yourself comparing your body to non-athletes bodies in the gym, on social-media, or in the hallways?

- 1 Never
- 2 Very rarely
- 3 Occasionally
- 4 Frequently
- 5 Very Frequently

(BI) What part of your body are you most confident about (check all that apply)?

- Legs/ Hips
- Stomach
- Arms/ Shoulders
- Back

(BI) What part of your body are you the least confident about (check all that apply)?

- Legs/ Hips
- Stomach
- Arms/ Shoulders
- Back

SCALE (Hart, Leary, & Rejeski, 1989)

- 1 = Not at all characteristic of me
- 2 = Slightly characteristic of me
- 3 = Moderately characteristic of me
- 4 = Very characteristic of me
- 5 = Extremely characteristic of me

I constantly think about life after college sports and how I will look.

I think that the muscle that I need in order to be a Division I athlete makes me look “fat” or “manly”

I find myself on a run, at a yoga class, or in the gym on my designated off day (not to workout soreness, but to burn calories)

I oftentimes find myself consumed with the way that my body looks

I like the way that my sport specific muscle makes me feel in social settings

I specifically changed my diet in order to lose weight while I have been in college

I think that my body shape is inconvenient to modern day fashion trends I see in the media

I often feel as though I am battling two different ideals: being female and being an athlete

I regret playing Division I athletics, because my body would conform to societal norms if I did not.

My muscle gives me confidence

When in a bathing suit, I feel self-conscious about the way my body looks compared to others.

I get upset after scrolling through Instagram and Facebook (or any social media) seeing my ideal body image on people who do not have to work as hard as I do.

I often find myself working out to look a certain way

I have been diagnosed with an eating disorder

I have witnessed a teammate experience body dissatisfaction

There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively. (Hart, Leary, & Rejeski, 1989)

I compare my body to non-athlete's bodies on Instagram (or other social media platforms)

When it comes to displaying my physique or figure to others, I am a shy person.

I am comfortable with how fit my body appears to others.

I wish I wasn't so up-tight about my physique or figure

I find myself feeling self-conscious in my game day uniform.

### SHORT RESPONSE

If you had to describe Division I female athletes in 3 words, what would they be?

When you think of a woman with the ideal body, who is this person?

### Appendix B: Social Physique Anxiety Scale (Hart, Leary, and Rejeski, 1989)

#### Social Physique Anxiety Scale

(Hart, Leary, & Rejeski, 1989)

The following questionnaire contains statements concerning your body physique or figure. By physique or figure we mean your body's form and structure; specifically, body fat, muscular tone, and general body proportions.

Instructions: Read each item carefully and indicate how characteristic it is of you according to the following scale.

- 1 = Not at all characteristic of me
- 2 = Slightly characteristic of me
- 3 = Moderately characteristic of me
- 4 = Very characteristic of me
- 5 = Extremely characteristic of me

- \_\_\_\_\_ 1. I am comfortable with the appearance of my physique or figure.
- \_\_\_\_\_ 2. I would never worry about wearing clothes that might make me look too thin or overweight.
- \_\_\_\_\_ 3. I wish I wasn't so up-tight about my physique or figure.
- \_\_\_\_\_ 4. There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
- \_\_\_\_\_ 5. When I look in the mirror I feel good about my physique or figure.
- \_\_\_\_\_ 6. Unattractive features of my physique or figure make me nervous in certain social

settings.

\_\_\_\_\_ 7. In the presence of others, I feel apprehensive about my physique or figure.

\_\_\_\_\_ 8. I am comfortable with how fit my body appears to others.

\_\_\_\_\_ 9. It would make me uncomfortable to know others were evaluating my physique or figure.

\_\_\_\_\_ 10. When it comes to displaying my physique or figure to others, I am a shy person.



Appendix C: Correlation Matrix

**Correlation Matrix**

	bodyimage_COMP	Freq_Facebook	Freq_Instagram	Freq_snapchat	Freq_social_media	Mirror	Compare_nonathletes
bodyimage_COMP	1	.130	.054	.123	.138	.593**	.751**
	Pearson Correlation						
	Sig. (2-tailed)	.120	.519	.141	.097	.000	.000
	N	144	145	145	145	146	146
Freq_Facebook	.130	1	.211**	.155	.215**	.139	.193*
	Pearson Correlation						
	Sig. (2-tailed)		.009	.055	.007	.092	.019
	N	144	154	154	154	148	148
Freq_Instagram	.054	.211**	1	.522**	.433**	.125	.026
	Pearson Correlation						
	Sig. (2-tailed)	.009		.000	.000	.129	.758
	N	145	154	155	155	149	149
Freq_snapchat	.123	.155	.522**	1	.458**	.094	.117
	Pearson Correlation						
	Sig. (2-tailed)	.141	.055	.000	.000	.253	.155
	N	145	154	155	155	149	149
Freq_social_media	.138	.215**	.433**	.458**	1	.031	.045
	Pearson Correlation						
	Sig. (2-tailed)	.097	.007	.000	.000	.704	.584
	N	145	154	155	155	149	149
Mirror	.593**	.139	.125	.094	.031	1	.488**
	Pearson Correlation						
	Sig. (2-tailed)	.000	.129	.253	.704		.000
	N	146	148	149	149	150	150
Compare_nonathletes	.751**	.193*	.026	.117	.045	.488**	1
	Pearson Correlation						
	Sig. (2-tailed)	.000	.019	.155	.584	.000	
	N	146	148	149	149	150	150

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

\* . Correlation is significant at the 0.05 level (2-tailed).

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