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The Effects of Instagram Media Usage Frequency of Females in an Urban Public High School on Perceptions of Body-Image for Teenage Female Athletes and Non-athletes

Abigail Bohn

The purpose of this study was to examine the effects of photo-based media frequency on teenage females who attend an urban public high school and identify differences between athletes and non-athletes within that group. In order to determine the relationship of body image with media frequency, twenty participants were tested during a mixed correlational study where individuals completed a Likert-scale and open-response questionnaire. Responses included quantitative sums of Likert-scaled questions and qualitative quotes from open responses. Quantitative scores were correlated to media frequency through Linear Regression, while qualitative scores were coded and quantified to be compared to athletic participation. It was found that results were not statistically significant; however, a general negative correlation between media frequency and body image was calculated, meaning as frequency increases, teenage female body image decreases. Furthermore, quantified quotes revealed a positive correlation with athletic participation, so as a sport interaction increases, so does female adolescent body image.

Keywords: body-image, female athletes, social media, large city- urban public high school, Instagram, social pressures

Introduction

The humanistic desire for 'beauty' is similar to that of our biological needs like food, happiness, and nurturing. An individual's level of attractiveness—beauty—plays a significant role in an individual's confidence due to its innate origin within the brain (Bell & Milic, 2002). Physical appearance has shown to impact daily lives in relationships, work, self-esteem, and social status (Levin, 2009). A person's body-image—a multidimensional concept which conveys individuals' feelings and behavior in consideration to their physical features—can be impacted by daily activities: a significant example is social media. (Morrison & Morrison, 2004). Currently, there is a problem with how photo-based media platforms affect the body satisfaction of female teenagers. Specifically in the United States, "approximately 80% of women and 34% of men are dissatisfied with their current appearance in some way" (Greene, 2017). Females tend to use photo-based social media platforms more frequently than males and often view different types of posts. With the varying factors between genders, one idea remains constant: Leon Festinger's social comparison theory. This theory states that when objective criteria are absent, individuals tend to compare personal opinions, appearances, abilities, and features to those of others (Morrison & Morrison, 2004; Jin, 2018). Festinger's theory allows for an investigation into the potential effects social media applications may have on female athletes between the ages of thirteen to eighteen years.

To gain a new understanding of how photo-based platforms affect the view of ideal body-image for female teenagers—athletes in comparison to non-athletes—it is essential to analyze the media conveyance and usage frequency. Media conveyance refers to the types of media an individual views and interacts with on the platform. Social media posts can fall in a plethora of categories: quotes, selfies, full-body, scenery/nature, food, politics, animals, user-generated, trends,

and videos among others. Therefore, to improve the understanding of female teenagers' relationships with photo-based social media platforms, it becomes necessary to answer the following question: How does Instagram media frequency of use affect the view of ideal body-image for female athletes compared to non-athletes between the ages of thirteen to eighteen years in an urban public high school? Focusing on one school and restricting the age range increases the probability that the participants' educational and social experiences will have been similar. Additionally, several theories involving body-image—Theory of Social Comparison, Sociocultural Theory, and Social Cognitive Theory—support further research by investigating higher-level questions: What role do social pressures play as described in the Social Comparison Theory? How does the concept of body-image change as described in varying cultures? Furthermore, how could the potential effects of body-image alter society's view on physical appearance?

Literature Review

Body-Image Components and Cultural Aspects

Body-image can be considered a blend of an individual's physical characteristics with their feelings, thoughts, and opinions about their body. Furthermore, body image has less to do with someone's actual physical appearance than it does their feelings and thoughts about it. (Davis, 1992). There are two distinct components of body-image: body-image evaluation and body-image investment. The first variable—body-image evaluation—can be described as an individual's cognitive opinions which evaluate their physical appearance. Body-image investment denotes an individual's behavior with a purpose to alter and enhance their appearance (Morrison & Morrison, 2004). These pressures on body dissatisfaction play a significant role in determining a person's attitude toward their appearance and often lead to the increasing similarities among "desired" body-types in not only Western culture but globally (DeBraganza, 2010).

Popular culture tends to originate in more developed countries such as the United States or Japan. Likewise, these places often create the common physical standards and expectations due to their higher exposure to media (DeBraganza, 2010). Research by Dr. Hanan, Professor of Media Psychology at the University of Management and Technology, concluded that cosmetic surgery demand in western countries is increasing rapidly due to the rising pressures to alter and enhance women's body shapes. In contrast, society often views cosmetic enhancement surgery as 'extreme' and 'unrealistic' which leads women to choose more subtle manners such as wearing a padded or binding bra that still create an illusion of a different appearance (Hanan, 2017). As other countries observe media from these areas, individuals suffer unique pressures related to body dissatisfaction and disordered eating due to a highly promoted thin ideal (McLean & Wertheim, 2017).

Popular media's effects on Western and global culture align with a theory designed by Lev Vygotsky: the Sociocultural Theory. This theory states that physical appearance dissatisfaction stems from Western society's portrayal of a thin body ideal and their belief that thin is 'good' and 'attractive' (Morrison & Morrison, 2004). Many ancient cultures worshipped "the body as a process" and recently have adopted a "body as an object" belief due to Western expression of perfection through thin ideals (Morrison & Morrison, 2004).

Social Media's Relationship with body-image

Societal norms encourage the use of social media for 'positive' purposes such as advertising, socializing, learning and more. However, social media platforms are highly interactive and self-exposing which could be the root of their stronger associations with body-image (McLean, Paxton, Wertheim & Masters, 2015). Repeated exposure to these platforms has led its audience to believe that "lean, toned bodies are normal, attainable, expected and central to attractiveness" (Clark, 2017). Researchers McLean and Wertheim determined that the frequent use of these social networking websites is likely to contribute to the development of risk factors and eating disorders for girls due to the unrealistic body expectations that the media promotes. When individuals post revealing images, they often subject themselves to negative consequences of self-objectification and online bully victimization (Kapidzic, 2015).

Those who post media tend to suffer consequences similar to the viewers of media. Posting revealing images may cause viewers to feel "inadequate, anxious and preoccupied with perceived body flaws" (Clark, 2017). Because 91% of teens who use social media post photos of themselves, these adverse consequences significantly affect their bodies (McLean, Paxton, Wertheim & Masters, 2015). Health care professionals and researchers recently have emphasized that "the current standard of a thin and fit physique is omnipresent and virtually impossible for the average woman to achieve without an unhealthy amount of dieting and exercise (Johnson & Wartle, 2005). Engagement with these 'perfect' images on media sites is associated with lower weight satisfaction and a higher drive for thinness in 15-year old girls (McLean, Paxton, Wertheim & Masters, 2015). Thinness internalization refers to the extent to which an individual cognitively submits into societal expectations of a perfect and thin body-type to the point of altering their behavior or appearance to the standards (Thompson and Stice, 2001). Internalization beliefs are one of the most consistent factors in the development of eating disorders in adolescent girls. They factor into numerous psychological and physical health problems such as depression and self-esteem issues (Clark, 2017). These effects often develop into more severe conditions as media exposure continues (Dhillon, 2017).

Women and Body-image

Body-image affects all individuals regardless of race, gender, or ethnicity. However, not everyone is equally vulnerable to the negative effects of media images. Research suggests that "the negative effects of viewing the ideal physique have been limited to mostly groups of women" (DeBraganza, 2010). Moreover, not all women are equally affected by the media's adverse effects. (Gerbner, 1998). Specifically, heavier women, women with higher levels of body dissatisfaction and women with a greater internalization of thin-ideals are more likely to experience more consequences of interacting with the portrayal of the ideal physique (DeBraganza, 2010). In addition to these groups, athletes are at high-risk of lower body image due to coaching pressures, athlete comparison, and competition needs, among others (Gerbner, 1998). From these women who are affected, only a minority develop eating disorders (Dhillon, 2017).

Eating disorders can be as minor as excess dietary restraint. Sociocultural theories suggest that pressures from family, peers, and media may significantly affect a woman's body dissatisfaction (McLean, Paxton, Wertheim & Masters, 2015). These attitudes, formulated within popular culture and thus the media, often originate from the misrepresentation of women's body types and weights. For example, researchers concluded that the average American woman has become increasingly heavier but media images of women have become significantly thinner. This media distortion correlates negatively with an attractiveness self-evaluation and has altered views of social reality (Morrison & Morrison, 2004; Gerbner, 1998). An individual's altered social opinion also reflects a behavioral change in both mainstream media and social interactions. This online behavior can be reinforced with "rewards" such as increased followers, likes, and comments or weakened with opposite punishment such as a decrease in followers, likes, and comments. Contrary to outward social behavior, media content often reinforces physical attributes instead of prosocial traits. Research has emphasized the lack of models which shows the body in its entirety, and instead focuses on 'perfect' individual parts: hands, feet, eyes, face, legs (Morrison & Morrison, 2004). Furthermore, media portrayals teach adolescent women that society will judge their success based on physical traits instead of valuable personality characteristics (Kapidzic, 2015).

Research Gap and Purpose

A comprehensive look at studies done on Instagram's effects on ideal body-image between female, teenage athletes and non-athletes has been significantly neglected in past research. More specifically, there has never been a mixed correlational research study conducted on an urban public high school considering the differences between female athletes versus non-athletes. Moreover, research studies using Instagram to analyze these effects remain nonexistent. A study that examines Instagram media frequency effects would allow for an analysis of the differences between athletes' and non-athletes' ideal body-image with consideration to the type of school and age range. Thus, the research question is as follows: How does Instagram media frequency of use affect the view

of ideal body-image for female athletes compared to non-athletes between the ages of thirteen to eighteen years in an urban public high school? The answer to this question is essential for the adaptation of media intervention classes and the advancement of public knowledge to increase awareness of body-image issues and eating disorders.

Research on the effects of media has proliferated over recent years due to the increasing role that social technology plays in our lives. Many researchers now understand the tendency of social media to negatively affect those who interact with it most frequently: female adolescents. However, studies that compare the effects of media on different groups of individuals remain under-researched. The insufficiency of research in this scope displays a need for future research focused on social media's effects on body image. This study examines the differences between adolescent female athletes and female non-athletes who attend an urban public high school.

Assumptions

No hypothesis was developed for this research to avoid potential researcher bias in this mixed methods study. Instead, two assumptions were made. It was assumed that all participants will answer the questionnaire prompts and questions in an honest and candid manner. Additionally, it was assumed that participants will fully understand each question or prompt and their responsibility in the research project.

Methodology

Credibility and Ethical Practices

The significance of safe and ethical practices within the conducted research remains a primary focus. In order to minimize risks and guarantee all ethical processes, Institutional Review Board approval was obtained. In addition, all participants signed a consent form which informed them of the research's purpose, risks, anonymity, and expectations among other information. To ensure reliable and valid data, the following methodology—the Instagram Media Conveyance and Frequency Questionnaire—was tested on a previous group whose data was not examined within this research. Advice was recommended from the tested individuals and was used to modify the questionnaire to better fit the participants who would take it and collect more informative, reliable, and secure data to lead to the new, significant understanding.

Privacy: Each participant was asked their age, current educational grade level, race/ethnicity, and information about their high school athletics for future purposes. No names were collected with association to an individual's responses; instead, each questionnaire was assigned a letter for reference (Morrison & Morrison, 2004). Consent forms were signed by individuals and their parent/guardian if the participant was under the legal age (See Appendix A). Any questions that arose were discussed in detail with the participant and/or guardian.

Sample

The sample comprised twenty female high school students aged 13-18 years. Participants were drawn from one urban public high school located in Louisville, Kentucky. Individuals were collected through convenient sampling. Informative fliers with a consent form were handed out to gather the desired amount of participants for questionnaire responses. The first twenty individuals who submitted the questionnaire were included. Any responses after were nullified; therefore, these were not analyzed or considered into the data.

Detailed Procedure

A non-experimental mixed correlational research study was conducted in which females between the ages of 13 to 18 years completed a questionnaire involving Likert-style and open-response questions in order to explain their perceptions of the effects of Instagram media conveyance and frequency of use on views concerning ideal body-image for female athletes in comparison to non-athletes. This approach was adapted from a study done by Drs. Todd and Melanie Morrison (2004) who are PhD professors at the University of Saskatchewan in its department of Psychology. They used this technique to explore the correlational relationship between universalistic social comparison and the following variables: weight restricting and gaining diets, steroids, self-esteem and

body dissatisfaction. The primary factor for choosing this approach as a guide is the similar topic which their research and this research share. They analyzed the relevance of the Social Comparison Theory and Sociocultural Theory with differing variables while this research focused on the impacts of universalistic social comparison on one variable: female adolescent body image. A study done by Drs. McLean, Paxton, Wertheim and Masters (2015) acted as another mentor source. This study was used as a guide for data analysis in the way they categorized and coded the collected responses.

This method targets the specific population of female teenagers in an urban public high school; therefore, method alignment to this group is essential. In order to fulfill this research aspect, Instagram was chosen to analyze the relationship between social media and female adolescent body image. This social media network was chosen due to its popularity among this age group and gender; it is the most frequently used application for the majority of female teenagers (Lenhart, 2016). Furthermore, due to its photo conveyance nature, this social network notably contributes to body image perceptions. In order to measure these effects, the following method was utilized.

Participants completed an online questionnaire to provide the necessary correlational data. This survey included fifteen 5-point Likert-scaled questions and five open-ended prompts. The Likert-scaled questions compiled the quantitative data while the open-ended prompts accounted for the qualitative data. This approach incorporated an adapted version of McLean, Paxton, Wertheim, and Master's "Body Dissatisfaction Subscale" which originally included ten items while this research utilizes fifteen. These questionnaires were distributed via individuals' personal electronic devices. Participants had no time limit to complete the survey due to their ability to choose their environment and pace to finish it (See Appendix B for the full questionnaire).

Effects of Instagram Media Conveyance and Frequency Questionnaire

The questionnaire utilized in this approach collected responses concerning demographics, athletic participation (or lack thereof), media frequency, media post conveyance, and body image. The "Body Dissatisfaction Subscale" composed a large part of the questionnaire—fifteen Likert-scaled prompts—due to its valid and reliable layout with the ability to contribute valuable responses from participants (McLean, Paxton, Wertheim, & Masters, 2015). Five additional items were added in order to retrieve the necessary data that could potentially connect athletic participation and body image. These new prompts asked individuals about their contentment with muscle mass, physical inferiority, strength, and physical habits. The numerical body image score was calculated by summing the numbers given by participants from each scaled prompt (Morrison & Morrison, 2004). The scores could range from fifteen to seventy-five: with higher scores denoting a higher measure on the Appearance Self Esteem Scale (ASES, modified from mentor source) (Morrison & Morrison, 2004). This value became the quantitative value for the participant. Body image was the factor this study measured through numerical data. However, considering the significantly personal topic of body image, quantitative data would not suffice.

The questionnaire also contained five open-response questions that asked participants about more private, particular topics concerning body image and social media. These responses encouraged no word limit or restraint so each individual could describe their feelings as specifically or briefly as she desired. The pure participant feedback was then read thoroughly several times for familiarization with the information. Each question prompted a response from the individual concerning a particular theme. This allowed the participant quotes to be descriptively coded based on the question and theme to which the answer corresponded. Essentially, each quote was analyzed for words that summated their ideas. From here, the relationship between codes was analyzed and the central theme was chosen based on the frequency which it occurs in participant answers. At this point, quantitative and qualitative responses were considered separate.

The codes which arose from participant quotes were given point values based on the quantitative data. For example, the middle—or intermediate—theme from the coded information would be assigned a numerical range which resembled a similar neutrality. While the qualitative information was quantified,

pure responses were not lost; instead, they provided understandable portrayals of participant's feelings on certain topics regarding the research.

Data Analysis

To analyze the data, the Likert-scaled responses were used to create a scatterplot showing the relationship between media frequency and the individual's ASES score. The linear regression analysis test was run on the data to quantify their strength of correlation between variables (McLean, Paxton, Wertheim, & Masters, 2015). Later, each sport was assigned a leanness numerical value based on a healthy individual's average heart rate while participating in the activity. This value allowed the researcher to compare sport difficulties and average body builds for each athletic activity in order to advance the findings of the relationship between athletics and female adolescent body image. Higher average heart rates constituted a higher leanness-score. Linear regression analysis was also run to determine the relationship between athletic participation and an individual's ASES score. For optimal comparison, means of central tendency and standard deviation were also calculated for the data.

Rationale

The method utilized for this research is a mixed—quantitative and qualitative—correlational approach. Quantitative data was collected to determine correlation and connect female adolescent athletic participation with body image. This procedure solved the research problem by conveying the association/relationship between the variables to determine correlation while additionally providing quotes which would strengthen the understanding the data portrayed. However, this approach did not provide the circumstances to prove causation due to the lack of variable control. Further research is required in order to establish a cause and effect relationship: this would remove the qualitative aspect of this approach which provided personal responses—instead of strictly numerical values—and allowed researchers a more significant understanding of the relationships.

Results

After collecting questionnaire responses, quantitative and qualitative analysis were conducted then compared. This comparison was possible through the ASES score assignment to the qualitative themes. Across the participant feedback, overall themes and ideas began to rise.

Overview

After coding the twenty responses for each of the five open-response questions, analytic themes were determined based on frequency throughout responses using methods earlier discussed. From participant responses, four primary themes arose: "Below Satisfied," "Satisfied," "Above Satisfied," and "Mixed". Relationships among these themes were discovered and further considered when creating their definition for this research.

"Below Satisfied": Responses which were categorized under this theme convey insecure feelings which discourage acceptance of one's body. Furthermore, these individuals often portrayed a need to improve in order to become closer to societal standards of beauty.

"Satisfied": Responses identifying with this theme convey acceptance of the individual's body but negative feelings when compared to other females: physically and through media networks.

"Above Satisfied": Responses which were categorized as this theme portrayed positive feelings toward one's body and insignificant effects of comparison.

"Mixed": This category arose as a solution for responses which did not fall under the three previous themes. Responses identified as this theme portrayed changing perceptions of one's body based on the environment or circumstances. Overall, these individuals did not convey a specific feeling toward their body.

Comparison of Athletes and Non-athletes' Body Perceptions

Overall Theme Results: In response to the question, "After interacting with the media on Instagram, do you feel that your thoughts change about your own body," individuals' opinions expressed the four themes previously discussed. When prompted, one respondent answered "Yes. I'm never satisfied. I feel like no

matter what, another person will always [be] better in a certain way," a feeling which represents "Below Satisfied". In more positive manners, one individual responded, "Seeing people who are eating and exercising healthy benefit me in a good way, encouraging me to be better," identifying as "Satisfied," whereas others expressed happiness and love toward their body, such as, "I don't have negative thoughts about my body… It's more inspiring in my opinion than detrimental to my own image," which conveys "Above Satisfied" perceptions. Some respondent's feelings were unclear and conveyed "Mixed" feelings. For example, one female said, "Some media posts make me feel so inspired and good about my body… some posts make me want to cry". The contradicting positive and negative feelings reveal the lack of a single theme.

After the coding of each response, athletic participation was recorded in order to observe body perceptions of those who participated in sports compared to those who do not. Individuals' responses in each category were calculated and used to compare perceptions of athletes and non-athletes as seen in Figure 1.

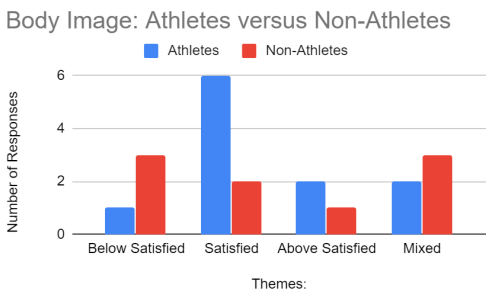

Figure 1: Comparison of Theme Responses

Overall, athletes reported higher rates of body-satisfaction than those who do not participate in athletics. As seen in the graph above, athlete responses expressed "Satisfied" or "Above Satisfied" feelings with a greater frequency than non-athletes: six compared to two, and two compared to one (see Figure 1). Additionally, non-athlete responses expressed "Mixed" or "Below Satisfied" feelings more often than athletes.

For the purpose of strengthening the qualitative data, quantitative responses were used for comparison: which would further confirm or challenge results. As discussed in the methods section, leanness score values were assigned to sports (0 representing no athletic participation, 3 representing high average heart rates and athletic effort with a focus on lean bodies). The relationship between the ASES score and sport leanness value was analyzed using linear regression and represented in Figure 2.

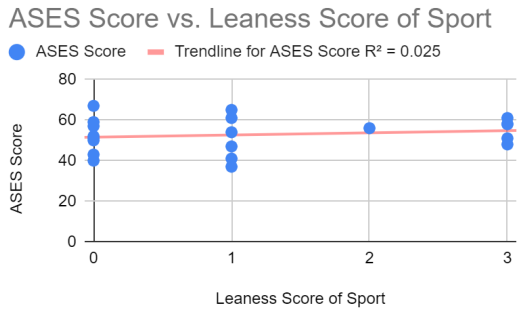

Figure 2: Sport Leanness Values versus ASES Score

Linear regression analysis revealed the direct relationship between these variables. As seen in this graph above, sports which were considered more leanness based had higher values of ASES scores, which represented individuals' body perceptions. Furthermore, females who participated in lower leanness focused sports or did not participate in athletics conveyed a lower ASES score than other female responders.

Effects of Media Frequency of Use

As mentioned previously, individuals were questioned about their media frequency, the time spent observing media on Instagram. This data was used to examine the relationship between females' ASES scores and their reported frequencies. This correlation was analyzed using linear regression, as seen in Figure 3.

Figure 3 critically contributes to this study's findings due to its relevance to the question, specifically the aspect of "frequency." This graph portrays the inverse relationship between the time an individual uses Instagram and their recorded ASES score. As seen in the graph, higher amounts of time spent on the application correlated with lower body perception scores than those who had lower frequencies. While

results were not calculated as statistically significant, hourly usage remains necessary in closing the research gap; therefore, the general negative relationship between the variables is a principal finding for this research. The majority of respondents reported media frequencies of one or two hours; therefore, these specific values were further examined. Figure 4 compares the measures of central tendencies for media frequency values of one and two hours.

As seen in Figure 4 and Table 1 above, the minimum, median, maximum, and mean were calculated for each frequency value. These results portrayed that a higher media frequency holistically conveys lower ASES score values when compared to a lower media frequency: one hour versus two hours spent on the social networking site. The numerical values represented in Table 1 reflect identical data to Figure 4 in a varying format for quantitative reference.

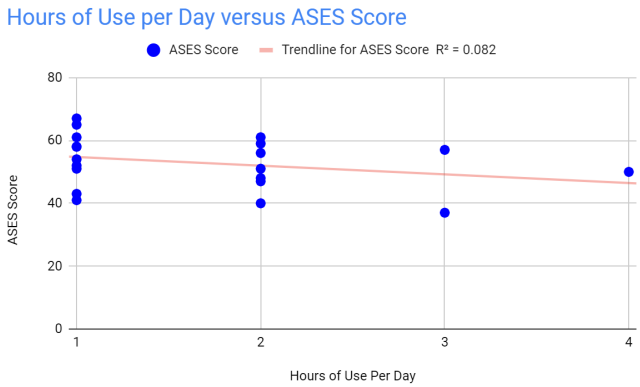

Figure 3: Media Frequency versus ASES Score

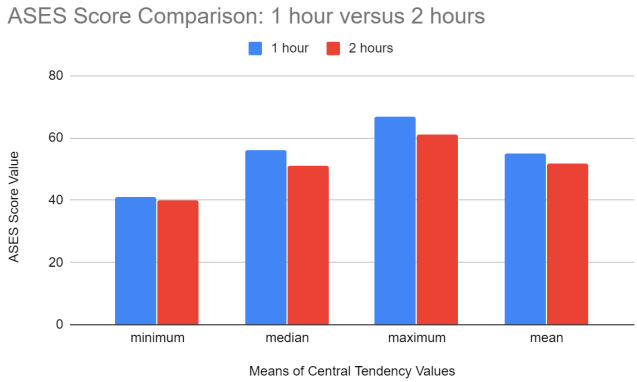

Figure 4: Media Frequency Primary Value Comparisons

Discussion

Principal Findings

Both Figure 1 and Figure 2 show the clear positive relationship between level of athletic participation and teen female body image. As shown through these graphs, higher body image (ASES) scores were seen in correlation with a greater

Table 1: Media Frequency Measures of Central Tendency

	1 hour	2 hours
Minimum	41	40
Median	56	51
Maximum	67	61
Mean	55	51.71
Standard Deviation	8.58	7.43

focus on high school athletics. The results from Figure 3, Figure 4, and Table 1 indicate the inverse correlation of media frequency and body perceptions. As time spent observing Instagram media increased, ASES scores decreased, which denoted lower body perceptions for those individuals. From these results, it can be inferred that the most popular social media network for the observed population, Instagram, negatively affects female adolescent body image. As elaborated further in the conclusion, this could be due to its majority photo content, relating to the social comparison theory discussed.

These results indicate that there are notable differences in the body perceptions of female athletes in comparison to non-athletes: higher sport participation correlates with a greater individualistic body perception for female teenagers. Additionally, the results emphasized the negative effect of greater Instagram media frequencies on body perceptions. As evident in the results, the answer to the question posed by this research (How does Instagram media frequency of use affect the view of ideal body-image for female athletes compared to non-athletes between the ages of thirteen to eighteen years in an urban public high school?), is that the correlation is negative, there is a relationship between the variables. This correlation, as mentioned, indicated that increased media frequency negatively affects body perceptions for both athletes and non-athletes; however, individuals with athletic participation report holistically higher body images than those who do not participate in sports.

Comparison with Previous Studies

The results from this study of athletic participation and media frequency are consistent with results from Bakker (2011) and Davis (1992), who both indicated significant differences in athlete and non-athlete perceptions overall. This research further aligned with a study by DeBraganza (2010), who concluded that increases in time spent on social networking sites negatively affect personal body-image for a general population.

However, some of the results vary from previous studies. For instance, Bakker (2011) found that higher athletic pressures correlated with lower body perceptions, which is inconsistent with the results in this research. Furthermore, while this study suggests that more leanness focused sports contribute to a higher individual body-image, other researchers, such as Bakker (2011) and Davis (1992), found that more relaxed athletic environments encourage higher body perceptions among females. These differences may be caused by the limitations of this study and those mentioned.

Limitations

Typical in a mixed—qualitative and quantitative—research methodology, the small sample size used in this research presents several limitations. All of the participants were females between thirteen and eighteen years old, attending an urban public high school located in the Southeast. The majority of the sample reported to be Caucasian (75%), while Hispanic and African American were both recorded at 10%, and 5% was attributed Asian Americans. Because of the small population mentioned, there is a threat of skewness in the data. It is essential to note that due to the specificity of the researched population, generalizations cannot be made. This is conveyed through a p value larger than 0.05 which states that the results are not statistically significant. While this seems to discredit findings, it simply accounts for the small population size. Although general applications are limited, this study provides an investigation of the relationship that a small community has with frequency and athletics. In addition, the small sample size categorizes this study as foundational, with intentions of providing initial discoveries on relationships between media frequency and two groups of female teenagers.

Furthermore, no controls were used in this study. Questionnaire responses showed little variation in the types of media seen by each female; therefore, it was assumed that each individual interacted with similar media on a daily basis. Because of this assumption, media conveyance was disregarded due to significant similarities among individuals and lack of relation to research intention. However, this variable had potential for affecting the studied females and thus presents limitations.

Implications & Future Directions

These findings emphasize that photo-based social media applications present significantly negative effects on female teenagers, whether they participate in athletics or not. These results have clinical and social implications. This study's conclusions can be used in critiquing intervention classes which strive to improve body image for struggling female teenagers; therefore, prevention can be more effective for minimizing eating disorders and other problems rooted within low body perceptions. Furthermore, this study provides findings which could aid in social media application improvement. It was found that an increased time spent on these networks decreases individualistic body image; therefore, limiting interaction time through application tools would benefit individuals. Many corporations, such as Apple, have taken steps in this direction through screen time limits and social media networks need to follow this example.

To continue the exploration into the effects of photo-based social media networks, research should be repeated with a larger sample size and controlled media conveyance. In addition, an investigation into how these factors vary among further sub-communities would advance these findings. The experiences of disabled women, those belonging to the LGBTQ community, and those in other minority groups could differ greatly than those who participated in this research; therefore, it is essential to examine these groups to further the knowledge of the effects of photo-based social networks. A strictly quantitative survey would require a larger sample size, which would address a current limitation of this study, while also providing clear findings among new research in this field.

Conclusions

The exploration of how photo-based media applications' influence female teenagers when comparing athletes and non-athletes reveals insight about a significant aspect of societal life. This investigation is necessary because it offers a further look into the current knowledge of a popular free-time activity. Additionally, it provides foundation for future research into the effects of photo-based social networks on varying communities.

New Understandings

The effects of social networking sites are complicated, especially when considering the number of populations they influence. This study shows that photo-based media networks tend to negatively impact the body image of female teenagers; furthermore, results indicate that high school athletics are correlated to positive body perceptions. This emphasizes the pressures presented by social networking sites and the benefits of participating in high school athletics due to the results discovered through this research. In addition, Leon Festinger's theory of social comparison supports this research's findings: when not distracted, humans seek objects to compare themselves to, hence athletics as a barrier to social media comparison; therefore, this theory significantly explains some results. This study illustrates the significance of lower media frequency coupled with participation in extracurricular activities, such as high school athletics in order to encourage overall positive body outlooks.

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Appendix A—Human Participant Informational and Consent Form

Subject Information and Consent Form

The Effects of Instagram Media Conveyance and Usage Frequency of Females in an Urban Public High-school on Perceptions of Body Image for Teenage Female Athletes and Non-athletes

I am asking for your voluntary participation in my AP Research project. Please read the following information about the project. If you would like to participate, please sign in the appropriate areas below.

What Is The Purpose of The Study?

The purpose of this project is to explain female teenagers' (13-18 years) perceptions of the effects of Instagram media frequency of use on the view of ideal body image for female athletes in comparison to non-athletes.

What Is Your Role While Participating In The Study?

If you choose to participate, you will be asked to complete a questionnaire involving Likert-style and open-response questions. The estimated time to complete this survey is between 5-15 minutes.

How Will Your Information Remain Confidential?

Your responses to the surveys will remain anonymous and your name will not be asked in correlation with your answers. There will be demographic-based questions which will not be shared and are only in the questionnaire in order to help sort participants and analyze data easier.

What Are Potential Risks of Participating In This Study?

Potential risks of participating in this research study is exposure to discussion of mental health, body-image, eating disorders, and social pressures. If you feel uncomfortable thinking about or reading questions/prompts which include these themes, you are not obligated to participate. Benefits to participating in this study

What Are The Benefits of Participating In This Study?

The potential benefits of participating in this research study is to provide data which helps make new discoveries in the world of Academia. By answering a brief questionnaire, more female teenagers will be aware of the effects social media has on their perception of body image and take action from these conclusions. Hopefully, these conclusions will bring about a new understanding for all those involved.

---If you have any questions about this study, please feel free to contact:---

THIS INFORMATION WAS REMOVED FOR COLLEGE BOARD IDENTIFICATION AND SCORING PROCESSES

Voluntary Participation:

Participation in this study is completely voluntary. If you decide not to participate there will not be negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question. By signing this form I am attesting that I have read and understand the information above and I freely give my consent/assent to participate or permission for my child to participate.

Adult Informed Consent or Minor Assent

_____

Research Participant Printed Name:Signature: Date Reviewed & Signed:

_____

Parent/Guardian Printed Name:Signature: Date Reviewed & Signed:

Appendix B—Effects of Instagram Media Conveyance and Frequency Questionnaire (Morrison & Morrison, 2004)

Effects of Instagram Media Conveyance and Frequency

The purpose of this questionnaire is to explain female teenagers' (13-18 years) perceptions of the effects of Instagram media conveyance and frequency of use on the view of ideal body image for female athletes in comparison to non-athletes.

Demographics Complete the following demographic information. Please note that all personal information will be kept completely confidential and none of the responses you provide will be connected to your name, email address, or other identifying information.

1. **What is your age?**

Mark only one oval.

13
14
15
16
17
18

2. **Which of the following best describes your current level in school?**

Mark only one oval.

Freshman
Sophomore
Junior
Senior

3. **Are you White, Black or African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, or some other race?**

Mark only one oval.

White or Caucasian
Black or African American
Hispanic or Latino
Asian or Asian American
American Indian or Alaska Native
Native Hawaiian or other Pacific Islander
Another Race

4. **Do you play a sport for the high school which you attend?**

Mark only one oval.

Yes
No

5. **If you answered yes to the previous question, what sport do you play? (Select all that apply) If you answered no, select the appropriate box and continue.**

Check all that apply.

Softball
Basketball
Bowling
Cheer-leading
Cross Country/Track
Dance Team
Field Hockey
Lacrosse
Flag Football
Golf
Gymnastics
Hockey
Soccer
Swimming
Tennis
Volleyball
I do not play a sport

Media Conveyance and Frequency of Use Complete the following questions. If you feel the answer choice that fits you is absent, choose a close option or the other option if applicable. Please note that all personal information will be kept completely confidential and none of the responses you provide will be connected to your name, email address, or other identifying information.

6. **On average, how many days a week do you open and interact with the media on Instagram?**

Mark only one oval.

1 day per week
2 days per week
3 days per week
4 days per week
5 days per week
6 days per week
7 days per week
I don't use Instagram

7. **On average, how much time do you spend on Instagram per day?**
Mark only one oval.
0-1 hours
1-2 hours
2-3 hours
3-4 hours
4-5 hours
5-6 hours
6+ hours
I don't use Instagram

8. **When using Instagram, what types of media do you see most often? (select all that apply)**
Check all that apply.
Inspirational Quotes/Posts
Selfies
Full-Body Images
Revealing Full-Body Images
Scenery and Nature
Food
Political
Animals
User-generated Content (MEMES, COLLAGES, ETC)
Trending Posts
Videos
Other

Body Image: Scaled Prompts Complete the following questions. These scales range from 1 to 5: strongly disagree, disagree, neutral, agree, strongly agree. If you feel the answer choice that fits you is absent, choose a close option or the other option if applicable. Please note that all personal information will be kept completely confidential and none of the responses you provide will be connected to your name, email address, or other identifying information.

9. **I am satisfied with my body**
Mark only one oval.
1 2 3 4 5

10. **Other people think I have a good body**
Mark only one oval.
1 2 3 4 5

11. **I am a good weight for my height**
Mark only one oval.
1 2 3 4 5

12. **I do not worry about being too muscular**
Mark only one oval.
1 2 3 4 5

13. **My body makes me feel confident**
Mark only one oval.
1 2 3 4 5

14. **I respect my body (eat healthy, exercise, etc)**
Mark only one oval.
1 2 3 4 5

15. **People find me physically attractive**
Mark only one oval.
1 2 3 4 5

16. **I do not worry about having the "perfect" body**
Mark only one oval.
1 2 3 4 5

17. **I am not critical of my body**
Mark only one oval.
1 2 3 4 5

18. **I am comfortable with my body**
Mark only one oval.
1 2 3 4 5

19. **There is no "perfect body"**
Mark only one oval.
1 2 3 4 5

20. **My body is strong**
Mark only one oval.
1 2 3 4 5

21. **When talking to others, I do not feel physically inferior**
Mark only one oval.
1 2 3 4 5

22. **I am satisfied with the amount of muscle on my body**
Mark only one oval.
1 2 3 4 5

23. **I do not try to enhance or change my body to fit other standards**
Mark only one oval.
1 2 3 4 5

Body Image: Open-response Prompts Respond to the following questions in a clear manner. There is no word limit or count, use as much room as needed to explain your thoughts on the question/prompt. Please note that all personal information will be kept completely confidential and none of the responses you provide will be connected to your name, email address, or other identifying information.

24. **How would you describe your feelings toward**

your body?

25. **Do you feel that there are body image expectations conveyed through Instagram?**

26. **After interacting with media on Instagram, do you feel that your thoughts change about your own body?**

27. **Do you feel that some types of media posts affect your opinions about your body differently than others?**