Correlation Between Time Spent on Instagram and College Students' Body Image

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Abstract

In this day and time social media has grown to be one of the most convenient ways to access and impact people, both directly and indirectly. In fact, all over the world adolescents and those emerging into adulthood tend to use it more for entertainment than anything else. Social media has changed the views of how people desire to perceive themselves, how they perceive others as attractive, and even what is to be considered as healthy and wellness based off of the outward appearance. The power of social media, the amount of time used to access it, as well as how a person feels about themselves can be positively or negatively correlated. Determined to find out if there was any negative correlation between the amount of time on social media and the impact it has on body image, particularly for female college students, a group of Old Dominion University student researchers conducted an experiment. Using surveys, the researchers were able to collect data from over 120 female students, after running a Pearson Correlations, the researchers found that there was not a negative correlation between those components. The findings were consistent with some studies, while disagreeing with others. Finally, the flaws, limitations, and future studies were discussed.

Keywords: adolescents, body image, social media, impact

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When considering the factors that may influence the self-esteem of individuals, what might first come to mind is body image. As children age and begin to hit puberty, they begin to compare themselves more often with their peers. When they feel like their friends are prettier or more fit than they are, their self-esteem begins to fall (Santrock, 2016). In the field of psychology, the idea of media, and how it plays a role in shaping one's perception, has become a question of interest. Along with media, family relationships, peer relationships, sexual harassment, and emotional expression can negatively or positively affect the self-esteem of adolescents (Polce-Lynch, Myers, Kliewer, & Kilmartin, 2001). The goal of this paper is to determine how much of an effect media has on the body image and self-esteem of female college students. Specifically, this paper will address the question of: Is there a negative correlation between the amount of time spent on Instagram and body image of female college students?

Researchers from the psychology department at the University of Turin, in Italy, conducted a study on the effect of the use of highly-visual social media (HVSM), such as Instagram and Snapchat, on body image concerns of adolescents. The researchers made comparisons between body image from adolescents who used HVSM, and adolescents who did not use them, instead using less-visual social media such as Facebook. In this study there were two hypotheses, the first was that the adolescents' use of HVSM was linked to a negative impact on the body image, and that this negative perception of body image lead to an increase in internalizing symptoms, which are symptoms that stem from emotions, are not easily seen on the outside. The second hypothesis was that body image concerns were the mediator on HVSM use and internalizing symptoms (Marengo, Longobardi, Fabris, & Settanni, 2018).

The sample for the study consisted of 523 participants; 53.5% were female and the mean age was 14.82. After receiving informed consent, the participants were asked to complete a questionnaire using paper and pencil. The participants were asked to report their daily use of Facebook and HVSM in hours per day. Body image concerns were measured in the study using the Italian version of the Body Shape Questionnaire to evaluate weight and body shape preoccupations. Internalizing symptoms were measured using the Italian self-rated version of the Strength and Difficulties Questionnaires on a three-point Likert scale to evaluate the adolescents' perception of their personal difficulties and strengths (Marengo et al., 2018).

The researchers found a significant positive correlation between age and time spent on Facebook and HVSM. There was also a positive correlation between being female and time spent on highly-visual social media. Both time spent on Facebook and time spent on HVSM were positively correlated with body image concerns and internalizing symptoms. There was also a positive correlation between body image concerns and internalizing symptoms. The hypotheses being tested in the study were supported by the data found during the research. This leads to the conclusion that more time spent on Facebook and HVSM sites may have caused more body images concerns and a higher prevalence of internalizing symptoms (Marengo et al., 2018).

This research is relevant to our own research in that it looked at HVSM such as Instagram and Snapchat and compared the body image responses of the users of those types of media to those who used less-visual social media such as Facebook and Twitter. Since our research focused on the correlation between participants' time spent on Instagram and their body image, this study provides a good stepping stone to further expand research. Even though it was

conducted on younger adolescents it could still be applied to college-aged young adults in order to expand the area of study (Marengo et al., 2018).

In another study, researchers were looking at the correlation between social media and body image. First, they took a look at certain components from today's online community that have became more important and critical in one's determination of body image. Then, they took notice of the psychological state of individuals in a social environment and community perspective as it relates to how individuals feel about themselves after using social media. Lastly, it looked at the cultural effects social media has on individuals (Perloff, 2014).

For females, this study drew a high amount of attention to how, over time, it became more accepted to be very thin or lighter in complexion. Research was done through questionnaires, surveys, and exposure on their social media accounts that could potentially cause an individual to feel "different" about themselves. That is, in terms of who or what kind of people were getting the most attention and positive feedback. The results ultimately ended with a decrease in self perception of attractiveness, low self-esteem, and an overall negative effect, especially, for those who were not altogether considered secure in themselves before the experiment took place. Also, it was revealed that some females ended up with some type of health risk, for example, an eating disorder because they wanted to be accepted or resemble those they see that are getting more attention and positive feedback on social media (Perloff, 2014).

To further explain the results, social media has taken over for those that have allowed it to. It can affect not only how people feel about themselves, but also their health. What has been called "Gratification-Seeking" from social media has become a major role in the lives of young people as a whole, particularly females. Because of how factors such as low self-esteem and

decisions regarding health can be so easily affected and amplified by social media, it is important

that people find ways to learn to be comfortable with themselves and gain self-confidence

(Perloff, 2014).

This is relevant and relates to the research we have already obtained because we see the

negative effects of the amount of time on social media and body image. In addition, it reveals

what could be possibly seen on the news feeds or timelines of an account that could change one's

perspective of themself. Also, it reveals the different avenues that it could impact like health

extremes (Perloff, 2014).

According to current societal beauty standards, the ideal image for a beautiful woman is a

thin, Caucasian blonde. There are many researchers who have suggested that the media's

portrayal of desirable physical attributes could be responsible for personal displeasure among

women, especially young developing women, in regard to their current body weight and shape

(Posavac, Posavac, & Posavac, 1998).

The article by Posavac et al. (1998), discussed three separate experiments that were

conducted to explore the ways in which media exposure can affect a female's self-image and

concern for her body weight. The researchers took students from the University of Utah in three

separate samples for these experiments and had hypothesized that body dissatisfaction would

directly influence the level of exposure that the media would have on a female's anxiety towards

her weight. Exclusively, the women with high levels of disappointment regarding their body

were anticipated to exhibit more concern with weight after having been exposed to the ideal

body images versus the women who were exposed to "neutral images".

The final results of the experiments showed that the media exposure of attractive female images has the ability to trigger weight issues in young women. These images and ideals have led young women into believing that they aren't measuring up adequately, causing them to have body image issues which could potentially lead to eating disorders and depression. The smaller the amount of exposure these young women had, the less negative the effects. This study was trying to show that media portrayal of body image has a direct correlation with self-image and weight loss concerns. The researchers were able to find evidence towards their hypothesis and ask that others further the research and data on the subject so that society could have a better idea as to how these issues can be fixed and how better marketing can be established (Posavac et al., 1998).

When shown that the standard of beauty varies from how they perceive themselves, young women could either become severely depressed or obtain some form of an eating disorder. Young women could find these media images to be intimidating, especially since a young woman's social success is directly linked to her personal level of attractiveness and the extent to which they take care of themselves physically (Prosavac, et al. 1998).

After completing this study, we hope to gain a better understanding of how social media affects female college students. By examining whether there is a relationship between time spent on instagram and self-esteem, the study will expand upon what has already been done and also look at the problem from a different angle. For this study, we hypothesized that there will be a negative correlation between the time female college students spend on instagram and their body image.

Methods

Participants

There were 128 participants in this study. The study involved having willing participants complete a survey which provided the purpose of clarifying whether there is a correlation between time spent on Instagram and a participant's self-esteem. All the subjects were Old Dominion University (ODU) psychology students, none of whom have received any form of compensation or recognition for their active participation. The sample for the study consisted of a younger demographic, with the ages ranging from 18-25 years; further, the mean age was 21.4 years. More specifically, the sample includes all classifications of various ethnicities (35.9% were African-American, 51.6% Caucasian, 0.8% American-Indian or Alaska Native, 2.3% Hispanic, 2.3% Asian, 1.6% Native Hawaiian or Pacific Islander, and 5.5% other) but was exclusively limited to the females. The sample was limited to females because they are more susceptible to social media than males (Santrock, 2016). The data could have potentially been skewed if males and females were included in the sample.

Materials

The two distinguished variables in this experiment were the time that was spent by the participants on Instagram and their self-esteem score. Both variables were continuous rather than discrete. The Rosenberg self-esteem scale, and Likert scale, were used in the evaluation of individuals' self-esteem. The data for both variables was quantitative. The data levels for both variables were considered ratio once the self-esteem score was reduced to a single score. Before reducing the self-esteem score to a single score, the data level would have been interval. Both variables were dependent variables in this experiment because of the correlational nature of the

study. None of the variables experimented on were manipulated for a positive or negative reaction. The amount of time spent on Instagram was measured by the self-reporting method, where the individual participants reported exactly how many hours they spend on Instagram per day. The participants' self-esteem was measured using self-report in the form of the Rosenberg Self-Esteem Scale (Rosenberg, 1965).

Procedure

The participants were sent a link to a Google Form where they were able to respond to the questions at their own leisure. The survey took approximately 20-25 minutes to complete, and the participants were informed of the exact nature of the study. The participants answered questions in relation to their demographics and the average amount of time that they spend on Instagram. In addition to the previously mentioned questions, the survey included questions from the Rosenberg Self-Esteem Scale (Rosenberg, 1965). After completing the Google Form, the participants were thanked for their participation. This was the only requirement of the participants.

Results

In order to determine whether there was any validity to the hypothesis that self-esteem and time spent on Instagram would be negatively correlated, the results give by the participants were run through SPSS version 24. After running a Pearson Correlation on the data, it was determined that the two variables had no significant relationships with each other, $r(127) = .16$, $p = .07$. The information provided shows that college-age females did not have significantly lower self-esteem ($M = 30.01$, $SD = 5.46$) when they spent more time on Instagram ($M = 15.79$, $SD = 17.37$). A scatter-plot was generated to further emphasize the lack of relationship (see Figure 1).

Discussion

The results of this study showed no correlation between self esteem and Instagram usage hence disproving the hypothesis of our research team. It was hypothesized that the more time the young woman spent on Instagram the more negative she would feel toward herself and her image. This study asked ODU college students to fill out an anonymous online survey provided to them via their school email on their personal social media usage, specifically Instagram 0-100 hours weekly, as well as for them to report how they feel about themselves utilizing a Rosenberg Likert Scale where they were asked to Strongly Agree, Agree, Disagree or Strongly Disagree with the provided statements. There were 128 participants ages 18-25.

In relation to the research we found on our topic of adolescence and self esteem our findings were not similar. One study in particular found that a female's self esteem continued to decline and that she became more influenced by media images as her age increased (Polce-Lynch et al., 2001). On the opposite end of the spectrum, a different research study we utilized for our findings as reference discussed how there was a positive correlation between time spent on Facebook and highly visual social media with body image and internalizing symptoms (Marengo et al., 2018).

One flaw that could be found in our research relates directly to our sampling and the selection of college students (Koetsier, 2008). We only surveyed one departmental major, psychology. It could perhaps be argued that psychology majors are more aware of themselves since their time is spent studying "self". With one being more aware of themselves and who they are, outside influences may not have as much of an impact on self esteem and body image. We could have allowed for our sample to include a more diverse variety of students with a more

diverse frame of thinking and educational background which could have given us a different set of results.

A limitation of our study is the length of time we surveyed the participants. The research and self reporting could have been more forthcoming and accurate over a longer period of time. Instead of asking the participants to report the data themselves, we could have tracked the time spent as it happened and gradually asked how the participant was feeling while looking through their newsfeeds. Another limitation/flaw was the lack of accuracy in the reported length of time. Our survey stated that there were quite a few students who used their Instagram account more than 40 hours a week which is the equivalent to a full time job. There were 2 participants who reported that they used the application 100 hours a week, which we find extremely hard to believe (Fan et al., 2006).

In furthering our research we could possibly focus on less, more realistic hours, for example staying within two standard deviations of the mean hours. Focus could be centered more so on whether or not the participants were posting, to see if they were searching for validation and acceptance, as well as focusing on the content that the participants are scrolling through. Someone searching through recipes and craft ideas may not be affected like someone viewing fitness pages and models.

While our research may not have found any correlation, there is more research and data required to truly come to a conclusion. Studies have been done proving both a positive and negative correlation with self esteem and time spend utilizing social media platforms. Focusing on fixing any flaws within the data gathering and limitations could lead us to entirely different

results providing us with some form of correlation, be it positive or negative. There is room for

growth within our research material, provided this topic continues to arise.

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Appendix A

The Rosenberg Self-Esteem Scale

Uni-dimensional scale developed by Dr. Morris Rosenberg measuring self-worth via a 10-item

scale. Items use a 4-point Likert formatting with answer choices ranging from "Strongly Agree"

to "Strongly Disagree". The scale utilizes self reporting of both positive and negative responses,

with the total scoring range of 1-30; 0-3 for each available answer choice. For instance the

"agree" answer choice chosen for a question could equal 0, the values are added for a total

measured score. The scores between 15-25 are considered "regular/normal" meaning the person

has a normal level of self-esteem, 26+ equates to high self-esteem whereas 14 and below equates

to low self-esteem.

Refer to table A-1 for an example of a general questionnaire as provided from Fetzer.org (http://

fetzer.org/sites/default/files/images/stories/pdf/selfmeasures/Self_Measures_for_Self-

Esteem_ROSENBERG_SELF-ESTEEM.pdf)

Appendix B

Listed are the questions used in the research collection.

1. Do you have an instagram?

2. How much time do you spend on Instagram per day?

3. How much time do you spend on Instagram per week?

4. How much time do you spend on social media per week?

Demographics of participants:

1. Age

2. Year

3. Gender

4. Ethnicity

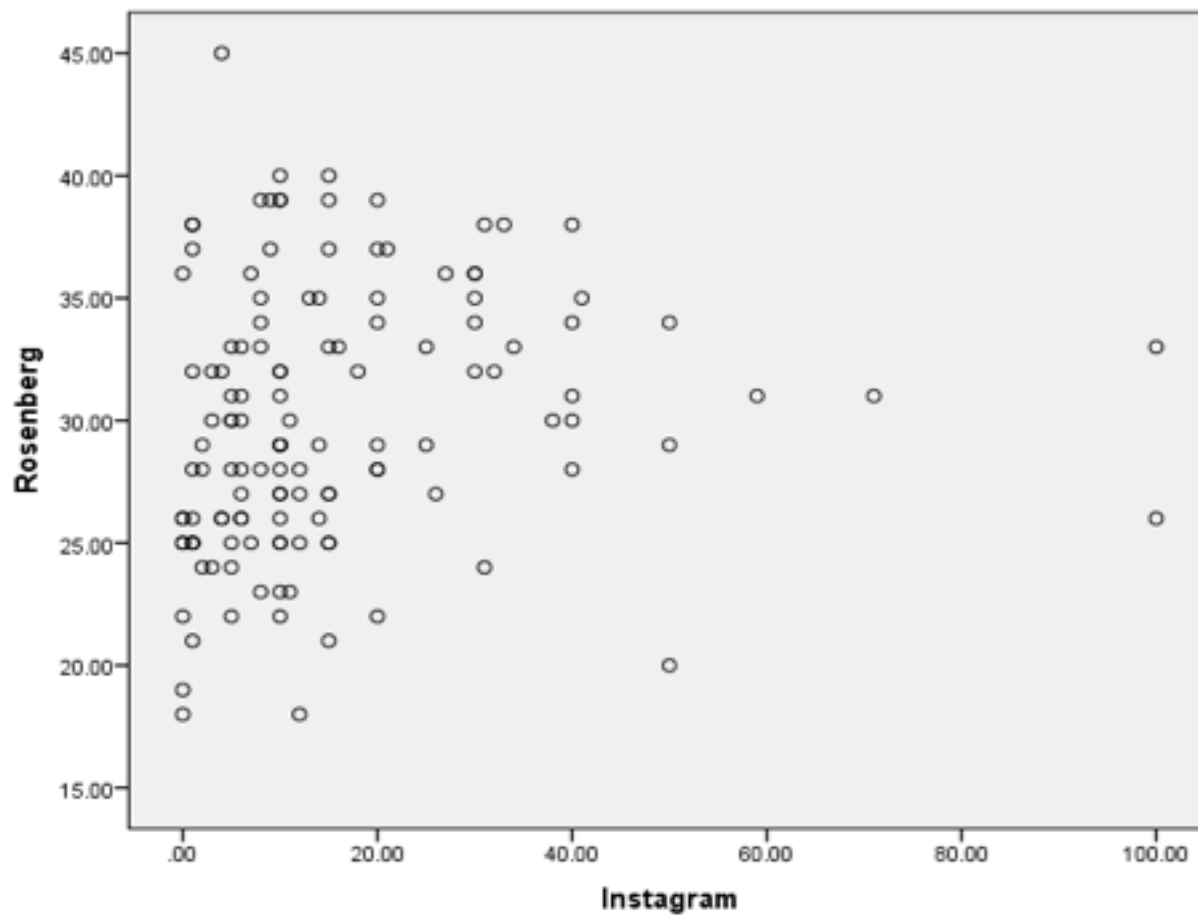5. Social Status (Student - High School or College)

Figure 1. A scatterplot of the variables represented in this study. The two variables, time spent on

Instagram and Rosenberg self-esteem score had no significant relationship to each other.