The Effects of Social Media Framing on Self-Esteem

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Abstract

There have been several studies viewing the effects of social media on self-esteem (Guinta, 2018; O'Keefe & Clarke-Pearson, 2011; Vogel, Rose, Roberts, & Eckles, 2014). However, there has been no to very limited research on the effects of the social media frame on self-esteem. The present study hypothesized participants in the frame condition would have lower self-esteem scores than those in the no frame condition. In addition, the present study is examining the effects of sex on self-esteem. Previous research to has led to the second hypothesis that females would have a lower self-esteem score in comparison to males (Bleidorn et al., 2016; Kearney-Cooke, 1999). Participants were required to take a pre-self-esteem assessment, watch a Google Slides presentation, and take a post-self-esteem assessment. The results partially supported the original hypotheses. Result found no significance between frame and no frame groups. On the other hand, in support of the original hypothesis, females had a significantly lower self-esteem scores than males.

Keywords: social media, framing, self-esteem, sex

The Effects of Social Media Framing on Self-Esteem

There have been many forms of communication throughout human evolution (Yeger, 2015). Recently, with the rapid growth of technology, we now have the internet as a means of communication (Yeger, 2015). In 1997, the first social media site was Six Degrees, a site that allowed the creation of a profile, friend requests, and direct interaction through messaging and blogs (Keith, 2016). By 2000, the internet was accessible to 100 million people and was being used for chat rooms, dating, and making friendships (Keith, 2016). Currently, the internet has opened a window for multiple modalities of communication: Facebook, Instagram, Snapchat, Tinder, Bumble, Twitter, YouTube, Tumblr, Linkedin, etc. (Keith, 2016). Each site provides a different lens of communication. For example, Instagram focuses mainly on photography, whereas Twitter only allows 280 characters in one Tweet. Over the years, all these forms of social media have become a significant part of our daily lives (Guinta, 2018). Guinta (2018) reported that 92% of 13 to 17 year olds go online daily. Furthermore, Guinta (2018) stated that 78% of older adolescents between ages 18 to 24 use Snapchat, with 71% visiting Snapchat several times a day. Additionally, Guinta's (2018) study reported similar indications with Instagram; it is used by 71% of older adolescents, and of that group, 45% use Instagram several times a day. Guinta's (2018) statistics indicate that social media has become a prevalent part of our lives and thus, it is important to understand the potential positive and negative consequences of it.

Positive Effects of Social Media

The beneficial effects of social media are immediately apparent for both youth and adults (Guinta, 2018; Hammond, Cooper, & Jordan, 2017; Wohn, Carr, & Hayes, 2016). Guinta (2018)

has suggested the benefits of social media use during adolescence include increased

collaboration and tolerance (Guinta, 2018). The wide variety of people who have social media

gives the opportunity for adolescents to interact with diverse populations they may not normally

be exposed to in their communities. Another important aspect is that it provides a channel where

information about school activities, safety alerts, and health promotion can be communicated

(Guinta, 2018). Since social media use has increased, it allows for important information to

quickly spread to a large amounts of people creating a more equal plane for awareness,

knowledge, and opportunities. Also, the convenience social media provides allows adolescents to

maintain connections they may otherwise not. Social media platforms provide adolescents with

the means to connect with family, friends, or other relationships across long distances (Guinta,

2018).

As with youth, social media can help maintain old relationships and foster new

connections for adults (Hammond et al., 2017). These relationships help create a supportive

network for the individual. Social media can help prevent the physical and psychological

isolation adults may experience by keeping track of birthdays and important life events

(Hammond et al., 2017). It can also aid with the transition into adult independence; the creation

of supportive networks allows individuals to easily connect with society for professional and

work related reasons in their geographic areas (Hammond et al., 2017). There is no doubt that

social media has added to important supportive aspects to both adolescent and adult lives

(Hammond et al., 2017).

Furthermore, a survey asked adults about paralinguistic digital affordances (PDAs) and

how these forms of gentle feedback within social media were associated with how supported

they felt socially (Wohn et al., 2016). People perceived PDAs, for example, Likes, Favorites, and

Upvotes, as socially supportive both quantitatively and qualitatively. Wohn et al. (2016) found

participants with high self-esteem and who were impacted by others opinions, tended to feel

more social support from PDAs. This positive correlational relationship between self-esteem and

perceived social support through PDAs suggests a ''rich get richer'' phenomenon, in which those

who already feel confident with themselves are more likely to perceive social support through

these social media cues (Wohn et al., 2016). The previously listed beneficial aspects of social

media denote that it will most likely be a method of communication for a significant period of

time, and for that reason, understanding both the positive and negative features of social media

has significant value.

Negative Effects of Social Media

Despite the positive impacts of social media, there are risks that are associated with it

(Guinta, 2018; O'Keefe & Clarke-Pearson, 2011; Vogel et al., 2014). Common risky behavior

displayed in adolescents include bullying, clique-forming, and sexual experimentation. These

behaviors have transitioned to social media in the forms of cyberbullying, privacy issues, and

sexting (O'Keefe & Clarke-Pearson, 2011). Although the previous behavioral effects mentioned

involve multiple people, social media also has a significant effect on the individual as well

(Guinta, 2018). The adolescent population tends to have a higher risk of the negative

consequences of social media because of their vulnerability to peer pressure and reduced ability

to self-regulate (Guinta, 2018). Guinta (2018) explains that the evolving developmental and

maturity levels of adolescents combined with unlimited access to social media platforms, adds a

significant amount of potential harm and negative consequences to their lives. Examples include

emotional problems, internet addiction, risky internet use, and social/functional impairment

(Guinta, 2018).

An additional ramification of chronic or temporary exposure to social media is social

comparison, which could have a harmful impact on people's self-evaluations and self-esteem

(Vogel et al., 2014). In particular, these researchers suggested two forms of self-esteem, one

being a person's consistent self-esteem, which is their overall internal self-esteem. Specifically,

moment self-esteem is similar to an emotion and is easily affected by external factors or

incidental use (Vogel et al., 2014). Incidental use was operationally defined as brief exposure to

an unknown social media profile in the Vogel et al. (2014) study. This correlational study found

that increased frequency of Facebook use was inversely correlated with lower self-esteem.

Results also concluded that social media profiles decrease moment self-esteem; therefore, social

media negatively impacts both consistent self-esteem and moment self-esteem (Vogel et al.,

2014). As described in the previous section, social media can add significant positive beneficial

factors to one's life that may have not been as easily as accessible before; however, the emotional

and behavioral negative repercussions social media can create cannot be ignored.

Instagram

Instagram is a photo and video-sharing social media site owned by Facebook, Inc.

("Instagram," 2018). This site allows users to upload photos and videos that can be edited with

various filters, organized with tags, and give location information. Posts have the opportunity to

be shared publicly or with pre-approved followers ("Instagram," 2018). Meanwhile, users are

permitted to search for content by tags and locations, as well as view trending content.

Instagrammers can also "like" photos, and follow other users to add their content to a feed

("Instagram," 2018). Instagram provides an endless array of organized pictures including a variety of topics. Since Instagram allows users to be exposed to an innumerable amount of images, this makes it the ideal source for the present study.

Instagram has not been studied as much as Facebook has in terms of the detrimental effects it can have on psychological well-being (Sherlock & Wagstaff, 2018). However, it is an extremely popular social media site reporting 375 million monthly users in 2017, with 68% of Instagram users being female and 32% being male ("Instagram," 2018). Instagram's users are equally divided with 50% iPhone owners and 50% Android owners ("Instagram," 2018). According to a survey conducted by United Kingdom's Royal Society for Public Health in 2017, participants aged 14-24 rated social media platforms on how much they provoke anxiety, depression, loneliness, bullying, and body image, and concluded that Instagram was above all the most detrimental social media site for young mental health (as cited in "Instagram," 2018). For this reason, it is important to question why Instagram is cultivating such negative emotional and behavioral issues.

Another study that found similar results was conducted by Sherlock and Wagstaff (2018). In Part 1, participants ages 18-35 answered several mental health questionnaires related to outcomes and self-perceptions. Assessments uncovered a correlation with high Instagram use associated with increased depressive symptoms, increased general and physical appearance anxiety, increased body dissatisfaction, and lower self-esteem (Sherlock & Wagstaff, 2018). While in the second part of the study, participants were shown a range of either beauty, fitness, or travel Instagram images or a control condition with no images (Sherlock & Wagstaff, 2018). This revealed a significant interaction between condition (beauty, fitness, travel images, or control)

and measurement time (preimage or postimage) was observed for self-rated attractiveness scores. These results indicated that the beauty and fitness images significantly decreased self-rated attractiveness and lowered self-esteem. Results also displayed increased anxiety, depressive symptoms, and body dissatisfaction (Sherlock & Wagstaff, 2018). Therefore, the present study desires to further contribute to this area of study and examine Instagram use and its contribution to negative psychological outcomes, such as low self-esteem (Sherlock & Wagstaff, 2018).

Self-Esteem

Defining self-esteem can be a complex task due to the several ways in which it can be explained. One interpretation discusses it as the difference between one's ideal self and their actual self (King, 1997). In other words, King (1997) describes self-esteem as the difference between who an individual wishes to be and who they actually are. A second definition describes self-esteem as a term used to describe a complex mental state regarding how one views oneself (Bailey, 2003). There are many variables to take into account when assessing the contributors of self-esteem. One's character and philosophy of life, value in work, physical belongings and mental fulfillments, personal appearance and appearance in the eyes of others, and the attachment to people and groups are a few of the constituents (Bailey, 2003). For the purposes of the current study, the assessments will be looking at self-esteem as Bailey (2003) defines it; a whole with different elements affecting it, such as the impact of social media.

The complexity in defining self-esteem is partially attributed to the role it has in our mental health. Self-esteem has an interchanging relationship with several other factors, which ultimately affect our mental health (Baumeister, Campbell, Krueger, & Vohs, 2003). Consequently, Baumeister et al. (2003) desired to seek what attributes of a person's life is

associated with self-esteem. It was found that high self-esteem is correlated with better school

and job performance, higher quality of relationships, increased leadership ability, and overall

happiness. To further expand on Baumeister et al. (2003), Trzesniewki et al. (2006) also

determined variables that are affected by overall self-esteem. They found that adolescents with

low self-esteem tended to have poorer mental and physical health, worse economic prospects,

and higher levels of criminal activity during adulthood. On the other hand, those with a higher

self-esteem during adolescence had the opposite to their counterparts (Trzesniewki et al., 2006).

In sum, self-esteem has a complex interactive relationship with other factors that consequently

lead this relationship to be a critical part of mental health and wellbeing. Due to the significant

impact, this relationship has on individuals, the present study will examine the effects of two

large components of self-esteem: sex and social media.

Self-Esteem and Sex Differences

One of the multiple components that affects self-esteem is sex (Bleidorn et al., 2016;

Kearney-Cooke, 1999; Kling, Hyde, Showers, & Buswell, 1999). Bleidorn et al. (2016) indicated

that when overall self-esteem was assessed through a self-report self-esteem scale, men tended to

have higher self-esteem than women. It was further found that both men and women experience

an increase in self-esteem as they age from adolescence (Bleidorn et al., 2015). During

childhood, it appears that self-esteem between the sexes is congruent (Kling et al., 1999).

Unfortunately, when moving into adolescence, female's self-esteem tends to drop and causing

the gap to widen. This continues throughout adolescence up to early adulthood and finally

narrows in old age (Kling et al., 1999). Moreover, Kearney-Cooke (1999) research supports the

idea that females tend to have lower self-esteem than males. It was reported adolescent girls tend

to have lower self-esteem and more negative perceptions, both physically and intellectually, in comparison to adolescent boys (Kearney-Cooke, 1999). Kearney-Cooke (1999) elaborated that low self-esteem is a possible explanation as to why girls have higher rates of suicide attempts, depression, and eating disorders. Although there are several components that go into self-esteem, social media may be one of those factors linked to low self-esteem and henceforth, be an active catalyst in the interaction between self-esteem and risky behaviors. If females are more vulnerable to lower self-esteem, they may also be more susceptible to the negative effects of social media.

To test the previous idea that females tend to have lower self-esteem than males, Hanna et al. (2017) tested the role of social comparison and self-objectification as possible mediators between the link of Facebook use and three facets of psychological well-being: self-esteem, mental health, and body shame. Both male and female participants aged 17–24 completed surveys. Participants indicated the amount of time they spent using Facebook on an average day by six response options (1 = less than 10 minutes; 6 = more than 3 hours). Several scales were used in order provide an accurate portrayal of participants' social comparison, self-objectification, self-esteem, social comparison, and psychological symptoms.

For women and men, the conclusion was that social comparison and self-objectification impacts the relations between Facebook use and well-being (Hanna et al., 2017). The indirect effects of Facebook use on each outcome measure were significant, and the mediated models provided a better fit to the data than models with direct pathways between Facebook use and self-objectification, social comparison, self-esteem, mental health, and body shame (Hanna et al., 2017). This study provided results that displayed how social media impacts both men and

women. There was no significant difference found in the results. The lack of consistent findings

makes it evident that further assessments are needed to analyze the effects of sex on self-esteem.

Despite Facebook not being the primary media being analyzed in the present study, it provides

insight as to how social media as a whole can affect self-esteem.

Self-Esteem and Social Media

In addition to sex, social media is another constituent of self-esteem which is displayed

through the experimental design of Vogel et al. (2014). They desired to examine whether

temporary exposure to social media-based social comparison information would impact

self-esteem and self-evaluations. In the study, participants were shown made up social media

profiles that were either an upward (higher status) or downward (lower status) social comparison.

To assess participants' upward and downward comparison tendencies on Facebook, researchers

asked: "When comparing yourself to others on Facebook, to what extent do you focus on people

who are better off than you?" and "When comparing yourself to others on Facebook, to what

extent do you focus on people who are worse off than you?" on a 1-5 scale (1 = not at all; 5 = a

great deal). After viewing the profile, participants rated their current state of self-esteem, as well

as relevant trait-based evaluations of the made up or target person and themselves (Vogel et al.,

2014). Overall, researchers found that user content and, to a lesser extent, social network content,

had an impact on how people judged themselves relative to the target person (Vogel et al., 2014).

Participants rated themselves worse on upward comparisons and similarly on a downward

comparison. Therefore, in terms of these results, Vogel et al. (2014) demonstrated the idea that

social media has a role in social comparison, which in turn has an impact on our self-esteem.

Although the present study is not directly assessing social comparison, this study displays the negative impact social media can have on overall self-esteem.

Additional studies have found similar results when looking at the impact of social media on social comparison and self-esteem (Hanna et al., 2017; Stapleton, Luiz, & Chatwin, 2017). As previously cited, Hanna et al. (2017) assessed the role of social comparison and self-objectification as possible mediators of the link between Facebook and self-esteem; it was found that social comparison does have an impact on self-esteem. Moreover, a correlational study conducted by Stapleton et al. (2017) found that social comparison mediated the relationship between self-worth and self-esteem. They found that Instagram use was influential when the emerging adults' self-worth is contingent on the approval of others, which can affect self-esteem. In other words, Instagram did not directly affect self-esteem, rather social comparison impacts self-worth, which results in lower self-esteem (Stapleton et al., 2017). The aggregation of these studies convey that there is an indirect relationship between social media and self-esteem. It appears that social media is another mechanism for social comparison. With social media allowing users to portray their lives in a certain manner, an upward comparison is almost inevitable (Vogel et al., 2014). It is possible that this upward comparison is what is responsible for lower self-esteem.

Measurement of Self-Esteem

In order to assess self- esteem, the present study will use the Rosenberg Scale (Rosenberg, 1965). It is a ten item assessment of self-esteem that can have a score ranging from 0-40. If a participant scores a 15 or lower they would be considered to have low self-esteem, but a score between 15-25 is considered to be in normal range (Rosenberg, 1965). It follows the

Guttman format, which requires items to be in a reproducible hierarchy. Specifically, there are two sets of questions, one being inversely scored, meaning five of the items have positively worded statements and five have negatively worded ones (Rosenberg Self-Esteem Scale, 2018). The scale measures state self-esteem by asking the participants to reflect on their current feelings. Rosenberg (1965) describes the assessment as easily administered, economical with time, provided the opportunity to rank people, and valid. The original sample for which the scale was developed consisted of 5,024 high-school juniors and seniors from 10 randomly selected schools in New York State (Rosenberg, 1965). Although the scale was piloted, it was not tested on this original sample. However, previous studies mentioned have utilized this scale to measure self-esteem (Stapleton et al., 2017; Vogel et al., 2014).

In addition, Blascovich and Tomaka (1993) found that Rosenberg's self-esteem scale has been cited 61.2 times per year, indicating that it is one of the most popular self-esteem assessment. The Rosenberg Scale is praised due to ease of administration, scoring, and interpretation. Blascovich and Tomaka (1993) also note that the measure's high internal consistency and test-retest reliability contribute to its popularity. They further mention the Rosenberg Scale as the standard that other assessment developers use as a comparison (Blascovich & Tomaka, 1993). The Rosenberg Scale has been shown to be a reliable and valid form of self-esteem assessment, and for that reason will be used in the present study.

Framing

Framing is the perspective of how individuals, groups, and societies perceive, organize and communicate about reality (Goffman, 1974). The theory suggests how information is presented influences how people process the information and how the chosen frame affects the

choices that are made (Goffman, 1974). The framing phenomenon originally evolved from sociology due to its emphasis on the contribution of others and their ability to impact individual perceptions on presented stimuli (Ardèvol-Abreu, 2015). For example, Tuchman (1978) used the news as a way to explain framing; the news is like a window that is delivered to each individual that offers a limited perception of reality by focusing on certain aspects of the whole. Henceforth, certain ideas will be more prominent than others and possibly create a different reality in comparison to the original one (Tuchman, 1978).

Extending the analogy of framing and news, journalists' jobs heavily depend on framing. There are four parts that contribute to this phenomenon: the sender, the message itself, the receiver, and the cultural context in which it is taking place in (Ardèvol-Abreu, 2015). A situation must occur with all the information presented to the sender. The journalist decides what becomes and what does not become news based on the time limitation and attractiveness of the story based on their training. Through these decisions, they are framing the news. The second and third components are the message itself and the receiver decoding the information through the conditioned social environment and communicative situation (Ardèvol-Abreu, 2015). Finally, cultural norms significantly shape what information is presented and how it is received. Cultural norms dictate what is considered appropriate and taboo (Ardèvol-Abreu, 2015). This could imply that the way we view normal images versus images presented on social media can be perceived differently and consequently have a different impact on self-esteem.

The coverage of the devastating Virginia Tech shooting can display how media and journalism framing affect the presentation of information (Hawdon, Ryan, & Agnich, 2014). Being such an impactful event, every major news company, both locally and internationally,

covered several topics about the event and the aftermath (Hawdon et al., 2014). In their study, local and national newspapers were assessed. It was predicted that during different stages of the event the local versus national news sources would focus on different aspects of the event (Hawdon et al., 2014).

Hawdon et al. (2014) hypothesized the papers geographically closest to the event would publish articles with victims' orientation and community suffering as the primary interest; whereas distant sources focus on conflicts that arise and major theme changes in the after the event period. The findings supported the hypothesis. Hawdon et al. (2014) found national articles report the event during the emergency, while local articles continued to report the event, even after the event occured. Additionally, articles with closer proximity to the shooting focused more on the victims; in contrast, further news sources were more likely to attract their attention to broader issues, such as the underlying causes of the tragedy (Hawdon et al., 2014). This article displays how the same event can have several perspectives with different focuses. This alludes to the idea that when the frame of information is manipulated, the content to some extent changes as well.

The previous content on framing was viewed from a sociological perspective. Since the 1960s, this theory has rapidly developed and can now be viewed from a psychological perspective (Ardèvol-Abreu, 2015). According to Kahneman and Tversky (1984), framing effects occur when one describes an event and the way that description is phrased impacts decisions made by another. The basic concept is that if a situation is framed negatively, then people will have a more negative reaction to it, whereas if the same situation is framed positively then people will have a positive reaction to it. More specifically, the potential for risk is

characterized by possible outcomes and by how probable they are (Kahneman & Tversky, 1984). The same option, however, can be framed or described in different ways. For example, the many outcomes of a gamble can be framed either as gains or losses in relation to how something is already going or as profitable positions that include how a participant started off. When given questions about saving lives or losing lives, participants tend to avoid risk when framed as saving lives, but seek out risk when framed as losing lives (Kahneman & Tversky, 1984). Similar to Kahneman and Tversky (1984), the present study will determine if a framed photo on social media will have the same impact on self-esteem as a non-framed image.

The previous studies, Hawdon et al. (2014) and Kahneman and Tversky (1984), indicate framing creates a lens that can alter our perspective. Comparably, social media has the same effect (Jacobson, 2018). Magazines and advertising were originally the only forms of media that were able to create unrealistic standards of physical beauty and career success that can have negative effects on self-esteem. However, these standards have now transitioned over to the Internet in general and social media specifically (Jacobson, 2018). Through social media, individuals are able to use makeup, photoshop, filters, and angles to portray their media accounts and life as a perfect highlight reel. The portrayal of these pictures can add on to the pressures of perfection that adolescents and young adults already experience (Jacobson, 2018). As cited in Jacobson's (2018), Doctor Wick mentioned the interaction between adolescents' vulnerability, need for validation, and a tendency of comparison as a framework for low self-esteem to grow. Doctor Wick further expanded how social media can create an internal divide between how an individual presents themselves on social media and how they are in reality (as cited in Jacobson,

2018). Conveying a perfect human for the majority of the day makes it much more difficult to accept reality for an individual (Jacobson, 2018).

Present Study

Previous research (Hanna et al., 2017; Stapleton et al., 2017; Vogel et al., 2014) has indicated there is a relationship between social media and self-esteem. Likewise, research on the framing phenomenon has displayed how the context in which messages are delivered in can impact the way the receiver decodes and perceives the information (Hawdon et al., 2014; Kahneman & Tversky, 1984). However, there has not been a study questioning whether it is the pictures in the context of social media or if it is the pictures themselves that lower self-esteem. The current study examined this in addition to the impact of sex on self-esteem. The inconclusive findings in the relationship of sex and self-esteem warrant further research in this area (Bleidorn et al., 2016; Kearney-Cooke, 1999; Kling, et al., 1999; Hanna et al., 2017). The present study placed participants into one of four groups: female-frame, female-no frame, male-frame, and male-no frame. The frame groups viewed images in a Google Slides presentation with an Instagram border and logo, similar to what is presented on phones. The no frame group viewed those same images in a different order and with no Instagram frame. The Rosenberg Scale was used before and after the presentation in order to evaluate the effect of the different conditions on self-esteem. The hypothesis for the present study was that the images with the Instagram frame would significantly lower self-esteem for both men and women; however, women would have significantly lower pre/post-self-esteem assessment scores.

Method

Participants

Undergraduate college students were recruited through sign up sheets passed around general psychology, research and design, and other elective courses in the Psychology Department as well as Greek group organizations at Ripon College. There were a total of 104 participants (49 males and 55 females). Of those who answered their age, the average was 19.11627907 with a standard deviation of 7.377579421. Furthermore, 73% of participants classified as White, 9.6% as Black/African American, 6.7% as Asian/Asian American, and 10.6% as Hispanic/Latino. The demographic study also collected data over what social media sites participants were active in (see in Figure 1). Participants were treated according to the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 2002).

Materials

In order to collect demographic data, a survey was given to participants to fill out their age, year in school, biological sex, primary race(s), and what social media platforms they participate in (see Appendix A). Additionally, participants filled out a pre/post-assessment to evaluate self-esteem. Specifically, the original Rosenberg's Self-Esteem Scale was used as the pre-assessment (see Appendix B) (Rosenberg, 1965). It was similarly used as the post self-esteem assessment; however, a randomized version of the scale was presented to prevent a carryover effect from the pre-assessment (see Appendix C).

Furthermore, the stimuli were created by using Google Slides to make two presentations titled "Frame" and "No Frame." These conditions indicated photos were presented with either an Instagram frame or without an Instagram frame. The plain black theme background was used as the backdrop for all pictures (see Appendix D and Appendix E). Each of the 20 images were

selected from different public accounts on Instagram to diminish repetition. Those pictures were

screenshotted using an iPhone 6 and uploaded and placed into the "Frame" presentation

condition. Then, the same pictures were edited using Photoshop to crop out the Instagram frame

and placed in the "No Frame" presentation. Both presentations had the first slide read the words

"Look Here" in white and a final plain black slide.

Within the collection of images, there were a total of five categories: nature, city, male,

female, and couples. The nature category did not allow people in the pictures and the scenery had

to contain a body of water, mountains, or trees. The city photos required no specific featured

person, but streets and buildings were necessary. Male and female pictures were required to have

slightly exposed to very exposed bodies with an athletic appearance. Finally, the couple images

required some form of physical intimacy. Each slide was timed to be presented for ten seconds.

The www.random.org/lists randomizer was used to order the pictures on the Google Slides

presentations.

Procedure

Each participant came to a public study lounge at the college at their previously chosen

time slot. After the consent form was filled out by a participant, a researcher then explained that

they were going to fill out a brief demographic survey, two assessments, and view a brief

powerpoint slide. The researcher then asked if there were any final questions before the study

was conducted. After the consent form was signed, they were asked to fill out the demographic

survey first (see Appendix A). Once it was determined what sex the participant identified as,

they were assigned to one of the four groups: female frame, female no frame, male frame, and

male no frame. Block randomization was used to ensure an equal representation for each group

in the study. Afterwards, they were required to fill out the pre-self-esteem assessment (see

Appendix B). The researcher then placed a laptop with the appropriate Google Slides

presentation condition (see Appendix D and Appendix E). The presentation took two minutes

and 50 seconds. Immediately after, the computer was removed and the participant was given a

separate piece of paper with the post-self-esteem assessment (see Appendix C). After they filled

it out, they were asked to write down five happy thoughts on the back. This was done in hopes to

counteract any psychological harm the study may have caused. Once the study was completed,

the researcher debriefed the participant on the purpose of the study. It was asked if there were

any remaining questions and if a sheet needed to be signed to receive class credit. Finally, the

participants were dismissed.

Results

It was hypothesized that participants in the frame condition would have significantly

lower post-self-esteem scores than their pre-self-esteem scores in comparison to the participants

in the no frame condition. It was further hypothesized that women would have significantly

lower pre/post-self-esteem assessment scores when compared to males. The independent

variables were sex (female and male) and condition type (frame and no frame). The Rosenberg

pre/post-self-esteem assessment scores were measured as the dependent variable. For each pre

and post assessment participants responses for half of the questions were scored as "Strongly

Agree" = 4, "Agree" = 3, "Disagree" = 2, and "Strongly Disagree" = 1 while the other half were

reverse scored. This meant that "Strongly Agree" = 1, "Agree" = 2, "Disagree" = 3, and

"Strongly Disagree" = 4. All the statements were then added up, with scores ranging between

10-40. Participants experienced one of the following conditions: female frame, female no frame,

male frame, male no frame. The between subject variables were sex and condition type, while the test was the within subjects variable. Scores were analyzed using a 2x2x2 partially repeated Analysis of Variance (ANOVA) assessing three variables: sex (male versus female), condition (frame versus no frame), and test (pre/post-self-esteem assessment).

Main Effects

The main effect of sex (Males $M = 31.117$, $SD = 5.118$, Females $M = 28.691$, $SD = 5.003$), was found to be significant, $F(1, 100) = 6.514$, $p = .012$, $\eta_p^2 = .061$, observed power = .715, two-tailed (see Table 1). Males had significantly higher self-esteem assessment scores overall compared to females. However, no significance was found with the main effect of condition (frame versus no frame) $F(1, 100) = .767$, $p = .383$, $\eta_p^2 = .008$, observed power = .140, two-tailed (see Table 2). The main effect of test was not significant, $F(1, 100) = .262$, $p = .610$, $\eta_p^2 = .003$, observed power = .080, two-tailed (see Table 3). These results indicate that males have a significantly higher pre/post-self-esteem assessment score than females and that an Instagram frame on pictures does not significantly impact self-esteem scores.

Interactions

No significant interaction was found between test and sex $F(1, 100) = .112$, $p = .738$, $\eta_p^2 = .001$, observed power = .063, two-tailed (see Table 4). There was also no significant interaction between sex and condition $F(1, 100) = .090$, $p = .764$, $\eta_p^2 = .001$, observed power = .060, two-tailed (see Table 5). Furthermore, there was no significant interaction between test and condition $F(1, 100) = .266$, $p = .607$, $\eta_p^2 = .003$, observed power = .080, two-tailed (see Table 6). Finally, there was no significant interaction between test, sex, and condition $F(1, 100) = .009$, $p = .924$, $\eta_p^2 = .000$, observed power = .051, two-tailed (see Table 7). In sum, these results

indicate that there was no significant difference between the pre and post tests. In addition, the interaction between sex and condition, test and sex, and the interaction between test and condition do not have a significant impact on self-esteem scores. Finally, the interaction between test, sex, and condition also did not influence self-esteem scores.

Discussion

This study sought to narrow down all the constituents that make up self-esteem by focusing on the impact that sex and social media framing can have. The design of the present study allowed the direct comparison of self-esteem differences between males and females, as well as the impact of pictures with and without a social media frame on self-esteem. This study hypothesized that females would have significantly lower scores overall compared to male scores, which was supported by the results. It was also hypothesized that participants in the frame condition would have a significantly larger negative difference in their pre/post test scores than those in the no frame condition, which was not supported by the data. These results provide further evidence of the complexity of self-esteem. Consequently, it also displays the difficulty in testing self-esteem.

The difficulty of testing self-esteem has been demonstrated through the lack of inconsistent findings on the impact of sex on self-esteem. According to Bleidorn et al. (2016) and Kling (1999), adolescent girls tend to have significantly lower self-esteem compared to adolescent boys. As individuals move into young adulthood the gap begins to get smaller, but men still have higher self-esteem than women (Bleidorn et al., 2016; Kling, 1999). However, Hanna et al. (2017) found social media equally lowered self-esteem for both adolescent males and females. This contradictory evidence requires additional examination of the subject matter.

The present study was able to contribute to this matter by finding that females having a

significantly lower self-esteem than males during older adolescence to emerging adulthood

(18-26). The Rosenberg Scale mentioned average self-esteem scores ranging from 15 to 25

(Rosenberg, 1965). Both male and female average scores were above 25 indicating a healthy

self-esteem, but the implications for these findings still convey that there should be a special

focus on developing positive self-esteem for females during adolescence and to continue it

throughout adulthood. Parents and school systems must take active roles in supporting their

daughters and female students. This issue can be addressed by providing and facilitating a

positive environment in which females feel supported. If this issue is not addressed, not only

does the risk of females having a lower self- esteem remain, but also the risk of further emotional

and behavioral problems that low self-esteem can cause.

        In addition to the interaction between sex and self-esteem, the relationship between a

social media frame and self-esteem was another large aspect of this study. Given social media's

increasing popularity and usage, it is imperative to understand the effects of it (Guinta, 2018;

"Instagram," 2018). Based on previous research, there seems to be a clear consensus that social

media is detrimental to self-esteem because of social comparison and peer pressure, among other

components (Sherlock & Wagstaff, 2018; Vogel et al., 2014). With this knowledge, is it is critical

to understand what specific characteristics of social media contribute to lower self-esteem, but

little research has investigated this. The present study aimed to do this by assessing the impact of

the way an image is framed on self-esteem. According to Kahneman and Tversky (1984), the

way in which information is presented can affect the perception and ultimately the decision

making of the individual. Results did not support this hypothesis as there were no significant

differences in self-esteem for any of the conditions; therefore, social media framing did not have an impact on self-esteem. Although it is contradictory to Kahneman and Tversky (1984), it presents important information. The present study indicates that images themselves, not just their presentation, have an impact on self-esteem. This could imply that all social medias using pictures as a major feature have a similar impact on individuals' self-esteem. More research is necessary in order to confirm and elaborate on the present study's findings.

Although the current study presents interesting data, there are a few limitations that must be addressed. Being on a small college campus in Wisconsin, this study could have had more participants and better diversity to increase the reliability of the study. Additionally, with this specific study, the printer misprinted some of the self-esteem assessments causing the words "Strongly Agree" and "Agree" to be spaced much closer than the other options. This led to some participants being confused and circling both "Strongly Agree" and "Agree." These participants were given a score three and a half for those questions. This score was meant to still somewhat adequately represent the intended response without throwing out their data. The half point difference did not alter scores by much, considering it can be assumed the participant would have scored as a three or a four.

Another limitation of this study was that it was not able to examine any longitudinal effects. The design of the study closely resembled Vogel et al. (2014) with the idea of moment self-esteem due to the brief exposure of pictures. As the Gunita (2018) determined, social media is used heavily on a daily basis by a large population. In order to best mimic the reality in which millions live, an experimental design viewing the long term effects of social media on self-esteem would give more relevant results.

Lastly, the present study creates avenues for future research. As mentioned before, there are many components that make up self-esteem. Since self-esteem is very complex, there are many ways to measure it. This study looked at self-esteem as a whole, but in the future, it should be assessed in terms of these specific components, such as body satisfaction or self-efficacy. The use of more and different scales would portray what aspects of self-esteem are affected. Scales such as the 11-item Iowa-Netherlands Comparison Orientation and the 35-item Contingencies of Self-Worth Scale would be helpful in measuring elements like social comparison and self-worth, both factors of self-esteem (Stapleton et al., 2017).

Finally, some of the participants had increased self-esteem in both the frame and no frame condition. This was the opposite effect the study desired. This could have been partially due to the pictures that were chosen for the slideshows. The variety of pictures was intended to mimic all the content that can be viewed on Instagram. Future studies should look at more specific topics in social media, such as the impact of selfies, pictures of people, or pictures of cities/nature. This would provide insight as to what areas of social media are more detrimental to self-esteem.

The contents of the present study display that there are still several opportunities to continue researching this interesting and relevant topic that is integrated into daily life. The present study brings awareness to and further establishes that females tend to struggle with lower self-esteem. Getting to the root of this problem could prevent low self-esteem in females. In addition, the present study will hopefully spark further research on social media. Despite not being a part of the present study, social media as a whole has been shown to lower self-esteem.

Hopefully, further research can find ways to improve the relationship people have with social

media.

References

American Psychological Association. (2002). Ethical principles of psychologists and code of

conduct. *American Psychologist*, *57*, 1060-1073.

Ardèvol-Abreu, A. (2015). Framing theory in communication research. Origins, development

and current situation in Spain. *Revista Latina De Comunicación Social*, *70*, 423-450.

doi:10.4185/2015-1053

Bailey, J. A. (2003). The foundation of self-esteem. *Journal of the National Medical Association*,

95, 388–393.

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem

cause better performance, interpersonal success, happiness, or healthier lifestyles?.

Psychological Science in the Public Interest, *4*, 1-44.

Blascovich, J., & Tomaka, J. (1993). Measures of self-esteem. *Measures of Personality and

Social Psychological Attitudes*. Third Edition. Ann Arbor: Institute for Social Research.

Bleidorn, W., Arslan, R. C., Denissen, J. J. A., Rentfrow, P. J., Gebauer, J. E., Potter, J., &

Gosling, S. D. (2016). Age and gender differences in self-esteem—A cross-cultural

window. *Journal of Personality and Social Psychology, 111*, 396-410.

doi:10.1037/0000078

Goffman, E. (1974). Frame analysis: An essay on the organization of experience. New York, NY:

Harper & Row.

Guinta, M. R. (2018). Social media and adolescent health. *Pediatric Nursing*, *44*, 196-201.

Hammond, S. P., Cooper, N., & Jordan P. (2017) Social media, social capital and adolescents

      living in state care: Multi-perspective and multi-method qualitative study, *The British*

      Journal of Social Work. 7, 2058-2076. doi:10.1093/bjsw/bcx144

Hanna, E., Ward, L. M., Seabrook, R. C., Jerald, M., Reed, L., Giaccardi, S., & Lippman, J. R.

      (2017). Contributions of social comparison and self-objectification in mediating

      associations between Facebook use and emergent adults' psychological well-being.

      Cyberpsychology, Behavior And Social Networking, *20*, 172-179. doi:10.1089/2016.0247

Hawdon, J., Agnich, L. E., & Ryan, J. (2014). Media framing of a tragedy: A content analysis of

      print media coverage of the virginia tech tragedy. *Traumatology: An International*

      Journal, 20, 199-208. doi:10.1037/0099400

Instagram. (2018). Retrieved from https://en.wikipedia.org/wiki/Instagram

Jacobson, R. (2018). Social media and self-doubt. Retrieved from https://childmind.org

Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist,*

      39, 341-350. doi:10.1037/0003-066.39.4.341

Kearney-Cooke, A. (1999). Gender differences in self-esteem. *J Gend Specif Med, 2, 46-52*

Keith, (2016). The history of social media: Social networking evolution. Retrieved from

      https://historycooperative.org

King, K. A. (1997). Self-concept and self-esteem: A clarification of terms. *The Journal of School*

      Health, *67*, 68-70. Retrieved from https://search.proquest.com

Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in

      self-esteem: A meta-analysis. *Psychological Bulletin, 125,* 470–500.

      doi:10.1037/0033-2909.125.4.470

O'Keeffe, G. S., & Clarke-Pearson, K., (2011). Clinical report- The impact of social media on

    children, adolescents, and families. *American Academy of Pediatrics. 127,* 800-804

    doi:10.1542/peds.2011-0054

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

    University Press.

Rosenberg self-esteem scale. (2018). Retrieved from https://en.wikipedia.org

Sherlock, M., & Wagstaff, D. L. (2018). Exploring the relationship between

    frequency of instagram use, exposure to idealized images, and psychological well-being

    in women. *Psychology of Popular Media Culture*. Advance online publication.

    doi:10.1037/0000182

Stapleton, P., Luiz, G., & Chatwin, H. (2017). Generation validation: The role of social

    comparison in use of instagram among emerging adults. *Cyberpsychology, Behavior And*

    Social Networking, *20*, 142-149. doi:10.1089/2016.0444

Tuchman, G. (1978). Making news: A study in the construction of reality. New York: Free

    Press.

Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A.

    (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and

    limited economic prospects during adulthood. *Developmental Psychology, 42*, 381-390.

    doi:10.1037/0012-1649.42.2.381

Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media,

    and self-esteem. *Psychology of Popular Media Culture, 3*, 206-222. doi:10.1037/0000047

Wohn, D. Y., Carr, C. T., & Hayes, R. A. (2016). How affective is a "like"?: The effect of

paralinguistic digital affordances on perceived social support. *Cyberpsychology, Behavior And Social Networking*, *19*, 562-566. doi:10.1089/2016.0162

Yeger, H. (2015). The evolution of human communication. *Journal of Cell Communication and Signaling*, *9*, 289–290. doi:10.1007/s12079-015-0286-6

Appendix A

Age:

Year in School: Freshman   Sophomore   Junior   Senior

Biological Sex: Male   Female

Primary Race(s): White   Asian or Asian American   Hispanic/Latino

Hawaiian or Pacific Islander   Black or African American

American Indian or Alaskan Native   Other

Social Media: Snapchat   Twitter   Tinder   Instagram   Youtube

Bumble   Tumblr   Pinterest   LinkedIn   Facebook

Fitbit   Other

Appendix B

1. On the whole, I am satisfied with myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

2. At times I think I am no good at all.

      Strongly Agree   Agree   Disagree   Strongly Disagree

3. I feel that I have a number of good qualities.

   Strongly Agree   Agree   Disagree   Strongly Disagree

4. I am able to do things as well as most other people.

      Strongly Agree   Agree   Disagree   Strongly Disagree

5. I feel I do not have much to be proud of.

      Strongly Agree   Agree   Disagree   Strongly Disagree

6. I certainly feel useless at times.

      Strongly Agree   Agree   Disagree   Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

      Strongly Agree   Agree   Disagree   Strongly Disagree

8. I wish I could have more respect for myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

      Strongly Agree   Agree   Disagree   Strongly Disagree

10. I take a positive attitude toward myself.

   Strongly Agree   Agree   Disagree   Strongly Disagree

Appendix C

1. I certainly feel useless at times.

     Strongly Agree   Agree   Disagree   Strongly Disagree

2. All in all, I am inclined to feel that I am a failure.

     Strongly Agree   Agree   Disagree   Strongly Disagree

3. I wish I could have more respect for myself.

     Strongly Agree   Agree   Disagree   Strongly Disagree

4. I am able to do things as well as most other people.

     Strongly Agree   Agree   Disagree   Strongly Disagree

5. I take a positive attitude toward myself.

     Strongly Agree   Agree   Disagree   Strongly Disagree

6. I feel that I'm a person of worth, at least on an equal plane with others.

     Strongly Agree   Agree   Disagree   Strongly Disagree

7. At times I think I am no good at all.

     Strongly Agree   Agree   Disagree   Strongly Disagree

8. I feel I do not have much to be proud of.

     Strongly Agree   Agree   Disagree   Strongly Disagree

9. On the whole, I am satisfied with myself.

     Strongly Agree   Agree   Disagree   Strongly Disagree

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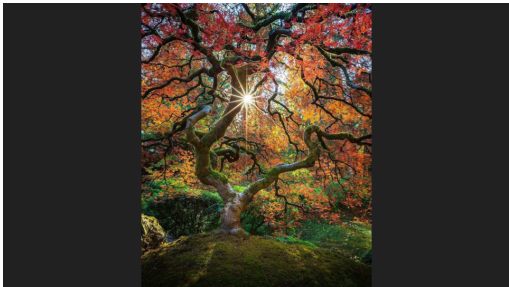
     Strongly Agree   Agree   Disagree   Strongly Disagree

Appendix D

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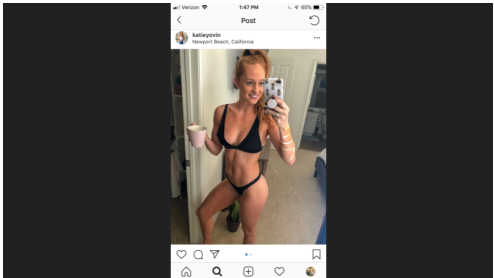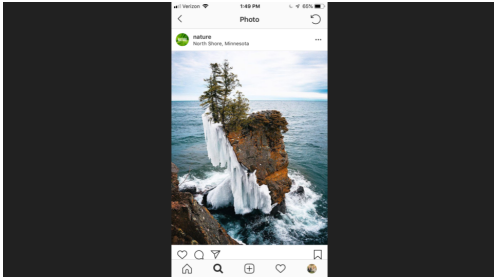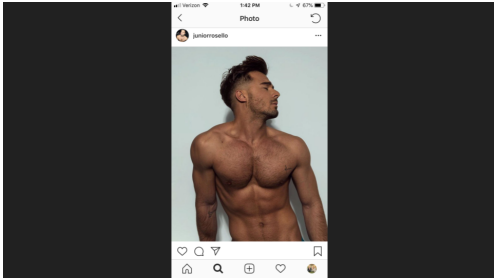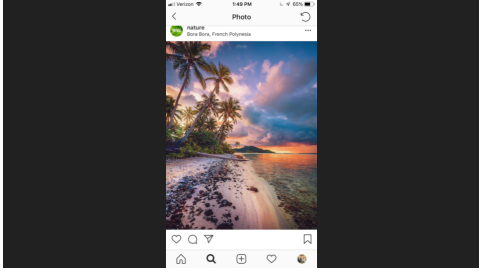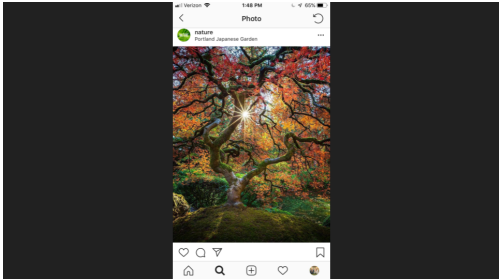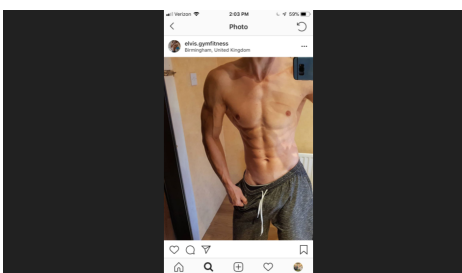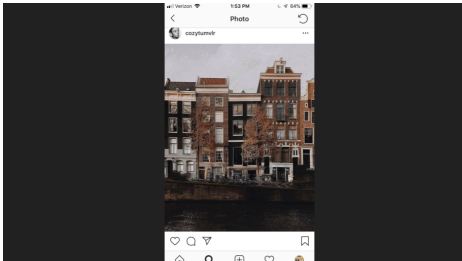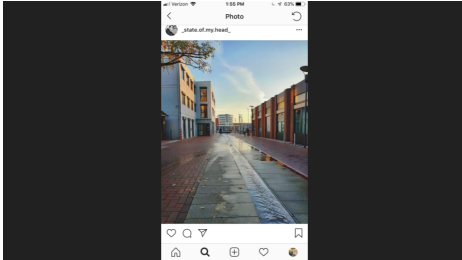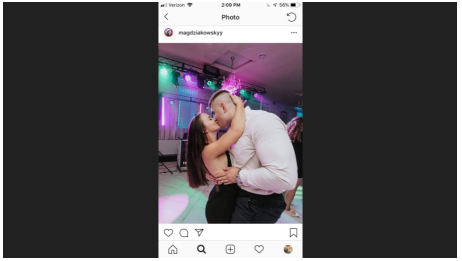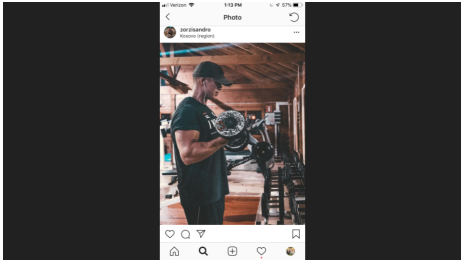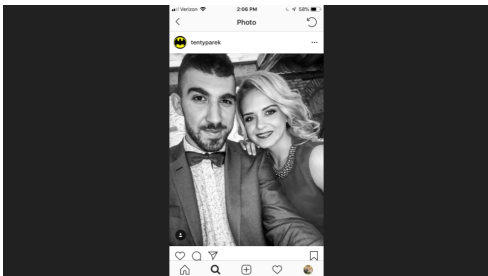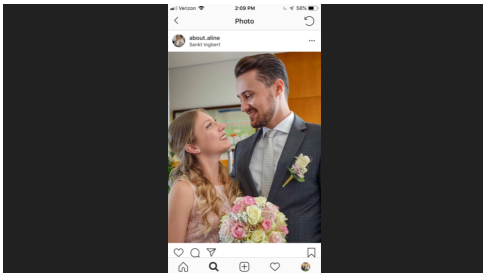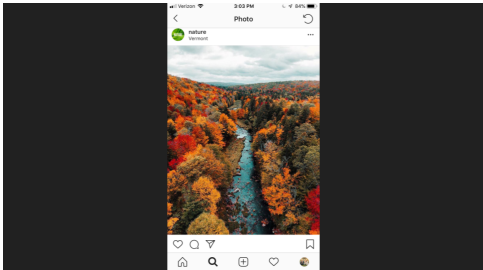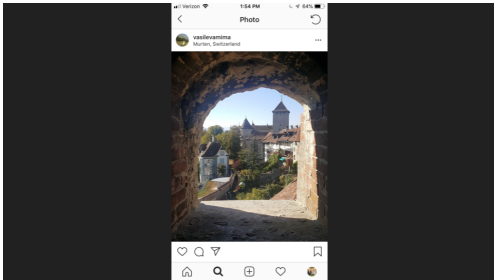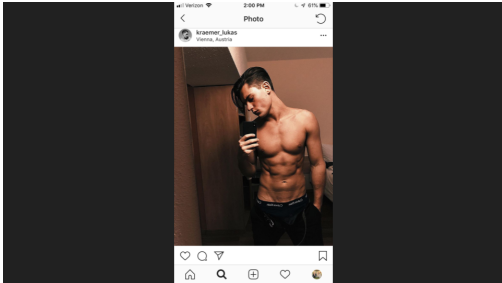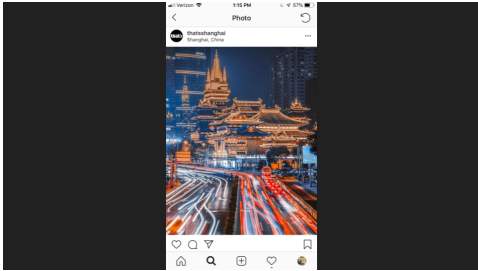
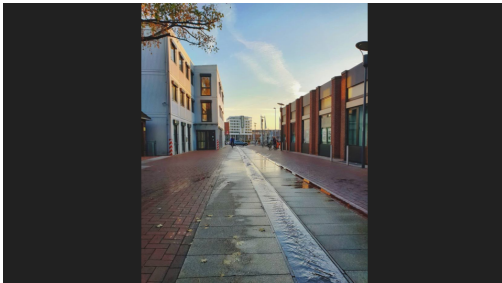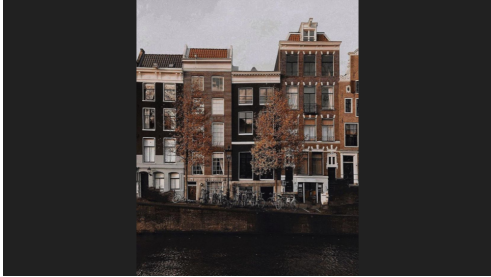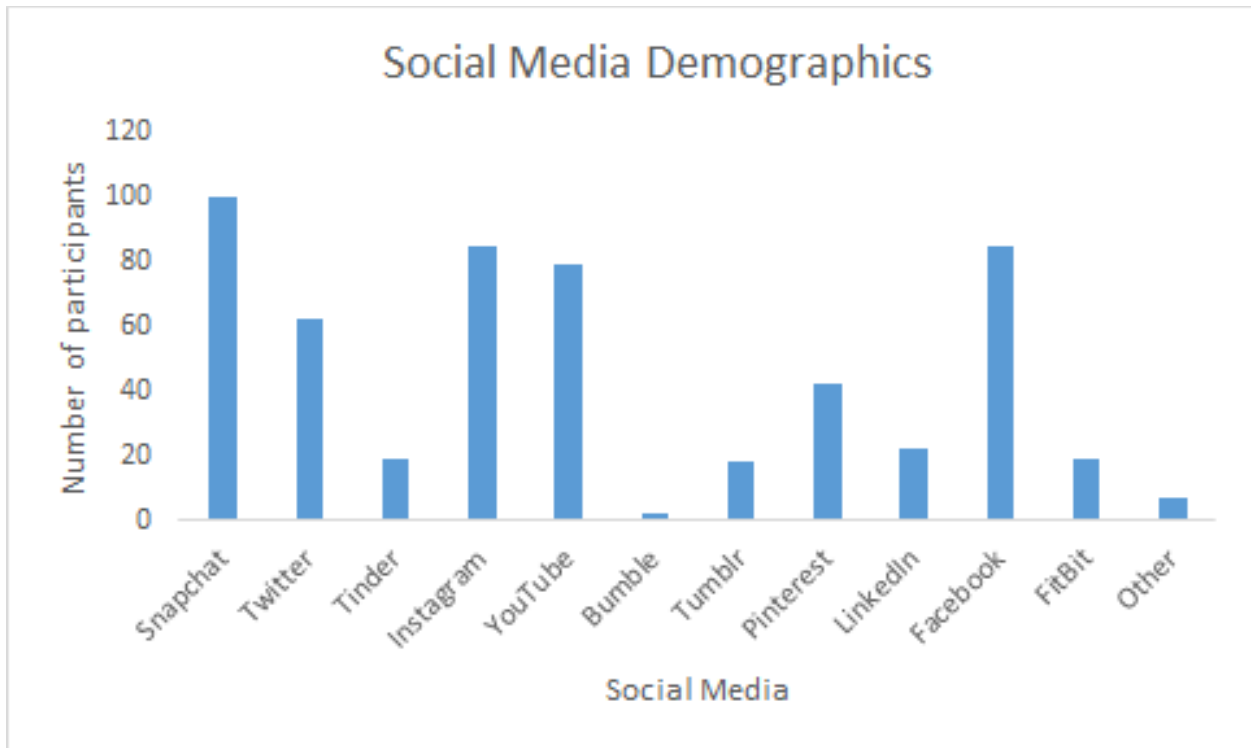*Appendix E*
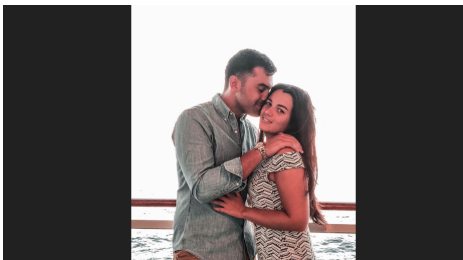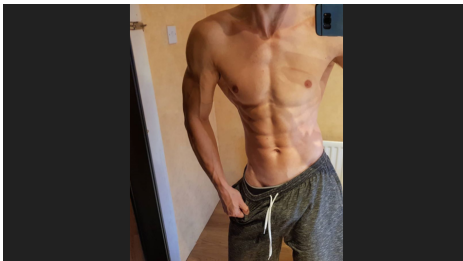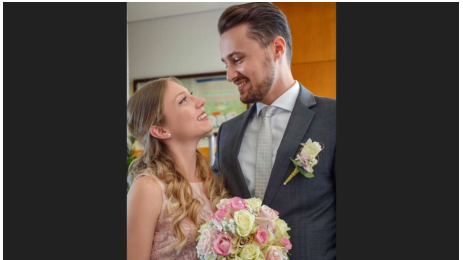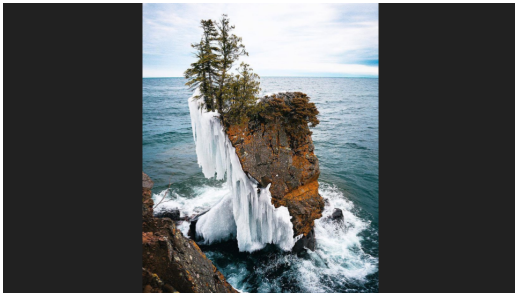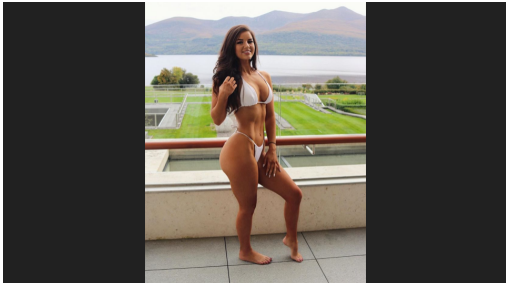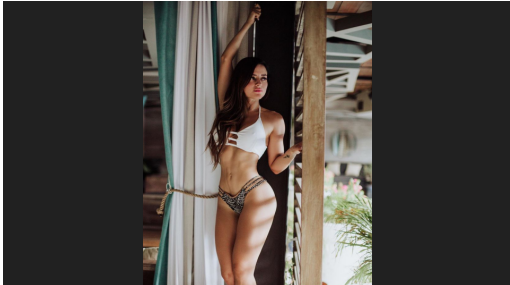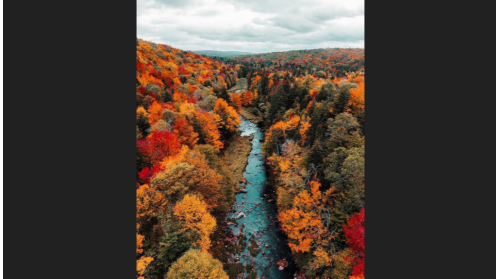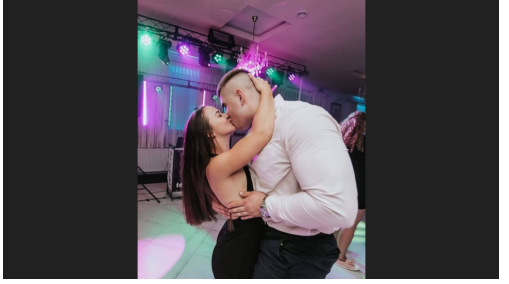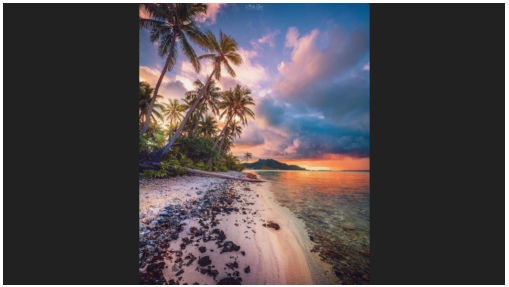
Figure 1. This is a frequency graph of the social media demographic data that was collected. The most popular mediums were Snapchat, Instagram, YouTube, and Facebook.

Table 1

Means and Standard Deviations for Main Effect of Sex

Condition	M	SD
Female	28.6909	5.00366
Male	31.1173	5.11809

Table 2

Means and Standard Deviations for Main Effect of Condition

Condition	M	SD
Frame	29.4198	5.52576
No Frame	30.2647	4.80496

Table 3

Means and Standard Deviations for Main Effect of Test Scores

Condition	M	SD
Pre Score	29.9135	5.07824
Post Score	29.7548	5.32214

Table 4

Means and Standard Deviations for Main Effect of Sex and Test Interaction

Sex	Test	*M*	*SD*
Female	Pre	28.7182	4.83981
	Post	28.6636	5.20688
Male	Pre	31.2551	5.05091
	Post	30.9796	5.23307

Table 5

Means and Standard Deviations for Main Effect of Sex and Condition Interaction

Sex	Condition	*M*	*SD*
Female	Frame	28.1429	5.03597
	No Frame	29.2593	4.95236
Male	Frame	30.8500	5.74567
	No Frame	31.3958	4.41463

Table 6

Means and Standard Deviations for Main Effect of Test and Condition Interaction

Condition	Test	M	SD
Frame	Pre	29.4151	5.45324
	Post	29.4245	5.64954
No Frame	Pre	30.4314	4.65405
	Post	30.0980	4.99201

Table 7

Mean and Standard Deviations of The Effects of Social Media Framing on Self-Esteem

Sex	Test	Condition	*M*	*SD*
Female	Pre	Frame	28.0714	4.86810
		No Frame	29.3889	4.80851
	Post	Frame	28.2143	5.28700
		No Frame	29.1296	5.18057
Male	Pre	Frame	30.9200	5.77112
		No Frame	31.6042	4.27068
	Post	Frame	30.7800	5.83824
		No Frame	31.1875	4.63637