Body Image: A Study Concerning Teenage Social Media Involvement and Body Satisfaction

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ABSTRACT

People have been influenced by social media, through both subtle and explicit means that appearance is crucial to a positive and successful experience as a person. While the message may not be directly stated, the strong implication that society needs to fit the ideal body standard can have detrimental consequences, especially amongst impressionable teen audiences. The social media platform, Instagram, is greatly responsible for this trend due to its focus on photo-sharing. My research investigated Instagram's portrayal of an unrealistic body image and social media's influence over the perception of one's body image. It aimed to answer the question "What effect does social media's portrayal of the unrealistic ideal body have on male and female Californian high school student's own body satisfaction?" To do this, a survey was conducted to review students' body satisfaction before and after reviewing images of popular influencers through Google Forms. Participants identified social media's expectations and reflect on their interactions with social media. After analyzing the data, it was concluded that while both genders' body satisfaction was impacted negatively by social media, young women were impacted more significantly than young men. The results of this study provide insight into how society influences body image and how social media can be used as a method to promote the ideal body standard. It explores males and their experiences with social media more deeply and in comparison, to women.

Introduction

With the rise of social media, society has become obsessed with the concept of portraying the perfect outward appearance consisting of being a productive, successful, and well-liked individual. Living in a society that holds a high value on appearing the best, social media platforms have capitalized on this characteristic. People have been influenced by social media, through both subtle and explicit means that appearance is crucial to a positive and successful experience as a person. While the message may not be directly stated, the strong implication that society needs to fit the ideal body standard can have detrimental consequences, especially amongst the impressionable teen audiences. The article, "How social media affects the mental health of teenagers" by Kelly Burch demonstrates that social media may negatively impact teenagers' mental health. Social media is seen as a contributing factor to low self-esteem in adolescents and Burch states that "More than half of those teens reported that the feeling was related to their bodies." (Burch, 2020). These reports demonstrate that social media is setting up unrealistic damaging standards, placing peer pressure on teens at a young age. The health effects of social media hold varying effects from person to person but they are nonetheless profound.

Teenagers who feel pressure from social media to conform to a narrow standard of beauty can make negative comparisons between their bodies and what they see as 'ideal' bodies. In turn, these comparisons can create low self-esteem and poor body image both of which are risk factors for the development of risky weight-loss strategies, eating disorders, and mental health disorders like depression in both male and female teens (Body image: pre-teens and teenagers, 2019) Kerri Johnson, an associate professor in the departments of communication studies and psychology at UCLA, notes that "while it's likely society has evolved to have certain preferences, culture mediates those preferences" (Alexander, 2019). These ideals being unconsciously set for society's men and women in return contribute to

teenager's perception of what is socially acceptable. While there are studies regarding adult women and men, the influence of social media in male and female high school students is primarily unexplored especially for males who are at a higher risk of dying because they are often diagnosed later since many people assume males don't have eating disorders (Mond, Mitchison, and Hay 2014). This leads to the question, "What effect does social media's portrayal of the unrealistic ideal body have on male and female Californian high school student's own body satisfaction in the last two decades?"

The goal of this research is to analyze the effects of social media's portrayal of unrealistic body standards on Californian high school students of both genders which could be used to understand the impacts this unrealistic standard may have on their body dissatisfaction. Additionally, only a few studies have conducted gender comparisons of body image and included participants 50 years and older (Quittkat, Hartmann, et. al, 2019). These results could reveal important characteristics of American society and values that society holds and how they might impact the way of life.

Literature Review

Body Image Throughout the Years

Throughout the last 70 years, the ideal body image for women and men fluctuated according to popular trends inspired by the media at that time. In the post-war period of the 1950s, the ideal body image for women was a "busty, voluptuous hourglass look" that was popularized by famous models such as Marilyn Monroe and Grace Kelly following the rise of Hollywood films. In this period, the average woman's BMI was stagnant at 23.6, which was higher than that of major celebrity figures such as Shirley MacLaine (18.8) or Elizabeth Taylor (20.5) who held significantly lower BMI's (WOMEN'S BODY IMAGE AND BMI, 2020). For men, the goal was to be a "large, imposing figure" with some emphasis on a trim waist, but most on "broad shoulders on a tall build" (Petty, 2017).

Contrasting the voluptuous figures of Monroe, women of the 1970s saw an emphasis on appearing thin which led to women's eating habits and health being impacted for the worse. Singer Karen Carpenter was known to severely diet and so eating disorders such as anorexia nervosa began to be common as the decade also saw an increase in diet pills. While the average American woman's BMI remained at 24.9, the ideal body and BMI portrayed to the public were numbers as low as 18. For men, "a less rugged masculine look came into style as the perfect men's body" but no particular body type was popularized as the media seemed to have a larger emphasis on women (MEN'S BODY IMAGE AND BMI, 2020).

Throughout the '90s and '00s, the popularization of the movie "Baywatch" set the expectation to uphold a thin body with large breasts while high fashion began to emphasize the "waif look" and "heroin chic" which focused on thinness and a bony appearance through advertisements. American women endured this impossible standard being forced upon them throughout the decade. Average women with BMIs of 27.5 were to measure up their bodies to BMI as low as 17.2. In the 1990s however, the ideal for men was taking a step back from the unattainable bodybuilding physique of Superman to being lean and tall with a six-pack like the actor Brad Pitt. However, their challenge lies in the increasing rate of obesity which has increased the average male BMI to 28.5 in 2008 (MEN'S BODY IMAGE AND BMI, 2020). Currently, the ideal body shape for men can be defined as an inverted pyramid with broad shoulders and a small waist, while the female ideal is an hourglass with a small waist-to-hip ratio (Alexander, 2016).

Body Positivity Movement and Social Media

Inspired by the fat acceptance movement of the 1960s, the term body positivity was first coined by the founders of the "thebodypositive.org" website, a psychotherapist and an eating disorder survivor in 1966 (Cherry, 2020). However, this movement would not emerge until the early 2010s and began to gain traction and became more mainstream for

its focus on "challenging unrealistic feminine beauty standards" and later on for its message that "all bodies are beautiful" (Cherry, 2020).

Social media platforms such as Instagram played crucial roles by bringing attention to the body positivity movement (Markey, 2020) as it has influenced companies to be more inclusive in their representation. In a recent study titled "Are We There Yet? Progress in Depicting Diverse Images of Beauty in Instagram's Body Positivity Movement", researchers evaluated posts that used the body positivity hashtag (i.e., #bodypositivity) and the extent to which there were positive comments on body image (Lazuka, Wick, et.al). While they noticed that some body-positive accounts conveyed conflicting ideas, they also discovered that 43% of the bodies depicted in those posts were of individuals who had larger bodies (Lazuka, Wick, et.al). On these platforms, there is considerably more representation of the average person than the posts depicting "thinspiration" or "fitspiration" (Markey, 2020). The much-needed representation of average and obtainable bodies portrayed in the media may work to prevent body dissatisfaction that is often linked to the desired thinness most often portrayed in the media (Markey, 2020).

Impact on Adolescents and Children

Clinical psychologist and certified eating disorder specialist Dr. Lauren Mulheim defines the term "body image" as "a person's subjective perception of their own body—which may be different from how their body actually appears" (Mulheim, 2020) The formation of body image occurs very early and unfortunately, even young children can potentially suffer from body dissatisfaction. Common Sense Media reported that more than 50% of girls and almost 33% of boys between the ages of six and eight felt that the ideal body weight was less than their current weight. By the age of seven 25% of kids had participated in dieting behavior (Children, Teens, Media, and Body Image, 2019). Additionally, adolescence is a time when exposure to these ideas on social media can be damaging as the ensuing changes of puberty can lead to emotions of insecurity and poor body image for both young girls and boys that commonly carry on into the teenage years (Witmer, 2020).

Low self-esteem and body dissatisfaction are common outcomes related to social media usage. Research by Park Nicollet Melrose Center reveals that the development of poor body image can start as early as six years old. By late elementary school, 50% of girls are dissatisfied with weight and shape and have developed pervasive negative body esteem (Gallivan, 2014). Around 25% of male adolescents expressed a greater desire for toned and defined muscles (Calzo, Masyn, et.al) while around 50% of young 13-year-old girls reported being displeased with their bodies. By the time girls reached 17 years old, the percentage had almost doubled to 80% (Kearney-Cooke and Tieger, 2015). When researchers studied a group of 496 adolescent girls for eight years, they found that 5.2% of the girls met the criteria for eating-related issues such as DSM5 anorexia, bulimia, or binge eating disorder (Stice, Marti, et. al, 2010). It can be very evident that this is a pressing issue that starts beyond puberty and the teenage years. The severity of the problem can be revealed if it has the potential to influence children whose ages range from five to 10-year-olds.

Parental Concern and Social Media

In this day and age, parents play a crucial role in digital safekeeping and advice-giving as concerns over the internet grow at a tremendous rate. Parents are more worried about children's usage of social media than any other online activity, according to a survey conducted by the Family Online Safety Institute (FOSI). They found that social media was the only online activity where 43% of parents believed the harms outweighed the benefits while 31% thought the risks and benefits were about equal (Johnston, 2014). With this concern, they are also responsible for keeping their teens safe online and offline and have several tools and approaches at their disposal to do so (Johnston, 2014).
In 2011, the University of Haifa discovered that the longer girls spent on social media, the more they were susceptible to suffering from common eating-related issues such as anorexia nervosa, bulimia nervosa, poor body image, and the urge to lose weight by dieting. However, the study also observed that when parents were involved in the girls' media usage, they were more resilient to the negative influence, compared to when parents were not involved in the girl's

media exposure and were far weaker. Use of supportive parenting involvement for media use was associated with children's less-harmful Internet use (Grossbart et al.,2002; Valkenburg and Peter, 2009), whereas controlling parenting for social media was linked to more dangerous Internet usage (Livingstone and Helsper, 2008; Lwin et al., 2008; Valcke et al., 2010). This suggests that while social media has negative effects on the youth, parental involvement may be a strong potential preventative measure that can further protect the young teens from coming face to face with eating disorders and other related concerns.

Methodology

This study aims to understand and identify the impact of social media on high school student's body satisfaction. This study most closely aligns with the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3), which was used to measure multiple aspects of a societal influence to gauge the efficiency of prevention and treatment programs. Other large contributors to the formulation of questions come from the work of Jennifer Lewallen and Elizabeth Behm-Morawitz in their study which aimed to comprehend how images of fitness on Pinterest added to intentions to participate in extreme weight-loss behaviors, the 16-item Adolescent Body Image Satisfaction Scale (ABISS) primarily used for adolescent males, and Thompson, van den Berg, Roehrig, Guarda, Heinberg's Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ). Survey questions were pulled from these primary sources and modified to suit the research and the teenage audience. An experimental-observational study, in this case, a survey aiming to collect quantitative data, was essential in analyzing the correlation between social media and teenagers due to the different factors that have an impact on teenage body satisfaction. The survey lets each factor be analyzed on its own and eventually arranged.

Population

The population contains students who attend a diverse public high school in a large suburb in California. The school is diverse in academics and ethnicity, with about 2,340 students and 93% of them being of a minority. Located in a Title 1, lower-middle-class area based on median household income, the population is inclusive with a vast minority making up the population. Two-thirds of the students (67%) are economically disadvantaged and had either free or reduced lunch, demonstrating the region to have relatively low-income levels. These attributes make the sample to be a quality representation of other secondary education institutions in the proximity. While past studies have mostly focused on women, this study will evaluate both males and females.

Instrumental Design

Once personal and demographic information (gender and grade levels) were collected, participants responded to questions regarding their engagement in Instagram, a popular photo-sharing social networking site, to understand the degree of their time spent on social media sites and be asked about their perception of society's standards as well as their own body satisfaction. Following this, the control group will continue to answer questions regarding the influence of social media while the experimental group will first observe and analyze various images of popular content creators selected based on numbers of followers on Instagram before moving on to complete the rest of the survey. All participants who were identified to be engaged with media were selected for analysis.

Implementation of Study Details

The survey was distributed in a large suburban high school. It was distributed through the usage of school Chromebooks and through personal handheld devices. The survey was anonymous in an attempt to avoid any bias, associated

pressure, and fear of their vulnerability taken advantage of. Over a series of weeks, multiple emails about the survey were distributed to all grade levels through a variety of teachers across campus who work closely with an associated grade. Half of those selected teachers who were provided Survey A, their students were to be a part of the control group. Those who were given Survey B were a part of the experimental group. Those who were interested in participating then completed the consent forms provided at the beginning of the survey. Participants were given the incentive of extra credit after completion of the survey provided.

The participants then took the survey on their Chromebooks or personal handheld devices through the link their teachers provided. At the beginning of the survey, it was explained that their participation was voluntary and that they had the option to opt-out at any time and not share their responses; this encouraged participants to answer honestly. Additionally, participants could take the test on their own time which allowed for genuine answers and credible results. Participants only identified their gender, grade level, and email. The researcher made note of this information for communication and demographic purposes only.

Survey Construction

This study utilized a Likert scale as its primary response option, which recorded participants' opinions on their perceptions of the "ideal body type", social media engagement, and influences of social media on themselves. The impact of social media on body satisfaction was explored by dividing the survey into four major sections: demographics, opinions on personal body satisfaction, social media engagement and portrayal, and interactions of social media and body image with one additional section where the experimental group was asked to view five images of popular influencers and models from the popular photo-sharing app Instagram prior to answering questions reflecting on their body satisfaction. Images and models were not chosen based on their popularity due to many being brands or foreign personalities. Instead, they were chosen for their reputations and if their body is heavily used in their brand. Photos were selected from their accounts in the past year and had to fit the ideal body type defined prior and show off their physique and body type to emphasize the overall focus of the image.

The survey was modeled after Leone, Mullin, Maurer-Starks, and Rovito's scale, "The Adolescent Body Image Satisfaction Scale (ABISS)", where three questions were taken and utilized in this survey, selected based on their goal and relevance and Thompson, van den Berg, Roehrig, Guarda, Heinberg's Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) where 18 questions were selected and modified to cater to each gender and the purpose of the study. Some questions in both sources' scale and questionnaire were repetitive to confirm certain patterns in responses later on. Both surveys' wording was tweaked to ensure correct understanding and relevancy, as my participants are high school students.

Demographic questions were asked in order to aid in organizing the respondents' answers and to ensure accurate representation within the sample. The impact of social media and their body image and opinions on body satisfaction sections of the surveys consisted of questions using the Likert scale which explored the extent the content on social media pressured or influenced their body satisfaction from one (being strongly disagreeing) to five (strongly agreeing). The Likert scale questions how one feels when faced with social media influences, such as how much they compare themselves to the bodies portrayed online (e.g., Instagram), certain pressures they face, or their understanding of social media's role in body image. Another section that utilizes the Likert scale is the section where participants evaluate their body satisfaction which is just a baseline evaluation of their body satisfaction without the influences of social media.

Sample Selection

Stratified random sampling was used to collect data from the sample of participants equally. After omitting 11 individuals who did not identify usage of Instagram and going through the process of stratified random sampling, n=160 students were identified to be qualified enough to be included in the data set for analysis out of 171 total respondents.

The table below includes the different sections and questions within the survey, inspired by Leone, Mullin, Maurer-Starks, and Rovito's study and scale "The Adolescent Body Image Satisfaction Scale (ABISS)" and Thompson, van den Berg, Roehrig, Guarda, Heinberg's Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ).

Table 1. Sections of the Survey and Questions and Response Options Provided.

Questions	Measurement Scale/Response Options	Source
Demographics 1. What grade are you in? 2. What gender do you identify with? 3. How many hours do you spend on social networking sites on a typical day? 4. Which picture closely resembles the image of the ideal body type portrayed on social media? 5. Which of these 8 figures closely resembles your body type at this time? 6. Which figure do you think is the most attractive? 7. If you could, which of these 8 figures would you like to look like? 8. Do you use Instagram? (If no, skip to the next section.) 9. If so, how many hours a week?	1. Freshman, Sophomore, Junior, Senior 2. Female, Male 3. 1-2, 3-4, 5-6, 7-8, 9+ 4. 1-8 5. 1-8 6. 1-8 7. 1-8 8. Yes, No 9. 30 minutes, 1 hr, 2 hr, 3hr, 4hr+	Self-Defined
Viewing of Images (Experimental Group) • Directions • Set a timer for 1 minute and observe these images and find common themes within them. After the 1 minute is up, you may move onto the next section of the survey.	N/A	Instagram @bellahadid @kyliejenner @sommerray @alexisren @claudiaalende @luckybsmith @chico_lachowski @pietroboselli @rafaelmiller @neels
Opinions on Personal Body Satisfaction 1. I am satisfied with my body. 2. I want the "perfect" body. 3. My body makes me insecure.	**Likert Scale** Definitely Disagree = 1 Mostly Disagree = 2 Neither Agree Nor Disagree = 3 Mostly Agree = 4 Definitely Agree = 5	Leone, J.E., Mullin, E.M., Maurer-Starks, S., & Rovito, M.J. (2014). The Adolescent Body Image Satisfaction Scale (ABISS) for Males: Exploratory Factor Analysis and Implications for Strength and Conditioning Professionals. Journal of

		Strength & Conditioning Research, 28(9), 2657-2668. https://doi.org/10.1519/JSC.0000000000000439
Influence of Social Media (Female Ver) 1. I've felt pressure from social media to lose weight. 2. I care if my body looks like the body of other women who are on social media. 3. I feel pressure from social media to look attractive and pretty. 4. I would like my body to look like the female models who appear on social media. 5. I compare my appearance to the appearance of social media influencers and models. 6. I've felt pressure from social media to be thin. 7. I would like my body to look like social media influencers. 8. I compare my body to the bodies of people who appear on social media. 9. I've felt pressure from social media to have a perfect body. 10. I compare my appearance to the appearance of other peers on social media. 11. I've felt pressure from social media to diet. 12. I wish to look as fit and athletic as the people on social media. 13. I compare my body to that of people in "good shape." 14. Social media is an important source of information about fashion and "being attractive." 15. I've felt pressure from social media to exercise. 16. I compare my body to that of people who are fit. 17. I've felt pressure from social media to change my appearance. 18. I try to look like people on social media. Influence of Social Media (Male Vers) 1. I've felt pressure from social media to lose weight. 2. I care if my body looks like the body of other men who are on social media. 3. I feel pressure from social media to look attractive and muscular. 4. I would like my body to look like the male models who appear on social media. 5. I compare my appearance to the appearance of social media influencers and models. 6. I've felt pressure from social media to be thin.	**Likert Scale** Definitely Disagree = 1 Mostly Disagree = 2 Neither Agree nor Disagree = 3 Mostly Agree = 4 Definitely Agree = 5	Thompson, J Kevin et al. "The sociocultural attitudes towards appearance scale-3 (SATAQ-3): development and validation." The International journal of eating disorders vol. 35,3 (2004): 293-304. doi:10.1002/eat.10257

7. I would like my body to look like social media influencers.
8. I compare my body to the bodies of people who appear on social media.
9. I've felt pressure from social media to have a perfect body.
10. I compare my appearance to the appearance of other peers on social media.
11. I've felt pressure from social media to diet.
12. I wish to look as fit and athletic as the people on social media.
13. I compare my body to that of people in "good shape."
14. Social media is an important source of information about fashion and "being attractive."
15. I've felt pressure from social media to exercise.
16. I compare my body to that of people who are fit.
17. I've felt pressure from social media to change my appearance.
18. I try to look like people on social media.

Findings

Products, Results, Findings

The following figures are bar graphs and data tables displaying results by 160 student respondents. These include 40 freshmen, 40 sophomores, 40 juniors, and 40 seniors with a gender breakdown of 80 female and 80 male students all together at a high school in a large suburban area in southern California.

Data Tables

Table 2. Mean and P-Value of Male (A) and Male (B)

Quantitative Questions	Male (A) Mean	Male (B) Mean	P-Value
Question 6 Which picture closely resembles the image of the ideal body type portrayed on social media?	2.775	2.45	**0.2759721375**
Question 7 Which of these 8 figures closely resembles your body type at this time?	3.075	3.125	**0.9007629812**
Question 8 Which figure do you think is the most attractive?	2.85	2.65	**0.4324263137**
Question 9 If you could, which of these 8 figures would you like to look like?	2.925	2.525	**0.161198196**

Question 10 I've felt pressure from social media to lose weight.	1.5	2.1	**0.005868447598**
Question 11 I've felt pressure from social media to lose weight.	1.85	2.325	**0.02772301799**
Question 12 I feel pressure from social media to look attractive and muscular.	1.925	2.725	**0.002621544817**
Question 13 I would like my body to look like the male models who appear on social media.	2.7	3	**0.2452255241**
Question 14 I compare my appearance to the appearance of social media influencers and models.	1.625	2.1	**0.04532191961**
Question 15 I've felt pressure from social media to be thin.	1.425	2.05	**0.0095776187**
Question 16 I would like my body to look like social media influencers.	2.275	2.65	**0.1892604303**
Question 17 I compare my body to the bodies of people who appear on social media.	1.775	2.425	**0.016166686**
Question 18 I've felt pressure from social media to have a perfect body.	1.425	2.175	**0.00421634043**
Question 19 I compare my appearance to the appearance of other peers on social media.	2.05	2.625	**0.05464851875**
Question 20 I've felt pressure from social media to diet	1.475	2.025	**0.02266769854**
Question 21 I wish to look as fit and athletic as the people on social media.	2.95	3.2	**0.3174441075**
Question 22 I compare my body to that of people in "good shape."	2.425	2.825	**0.2175943455**
Question 23 Social media is an important source of information about fashion and "being attractive."	2.35	2.65	**0.2667403344**
Question 24 I've felt pressure from social media to exercise.	1.75	2.1	**0.1561636165**
Question 25 I compare my body to that of people who are fit.	2.475	2.75	**0.3706082335**
Question 26 I've felt pressure from social media to change my appearance.	1.875	2.275	**0.1260592391**
Question 27 I try to look like people on social media.	1.825	2.25	**0.1091394358**

Question 28 I am satisfied with my body.	3.225	3.175	**0.8363122715**
Question 29 I want the "perfect" body.	2.775	2.925	**0.617671731**
Question 30 My body makes me insecure.	2.375	3	**0.01445768394**

Table 3. Mean and P-Value of Female (A) and Female (B)

Quantitative Questions	Female (A) Mean	Female (B) Mean	P-Value
Question 6 Which picture closely resembles the image of the ideal body type portrayed on social media?	1.375	1.473	**0.3222908507**
Question 7 Which of these 8 figures closely resembles your body type at this time?	2.325	2.35	**0.9088409088**
Question 8 Which figure do you think is the most attractive?	0.619	1.7	**0.5043538717**
Question 9 If you could, which of these 8 figures would you like to look like?	1.625	1.5	**0.3482811828**
Question 10 I've felt pressure from social media to lose weight.	3.175	3.625	**0.0811029185**
Question 11 I care if my body looks like the body of other women who are on social media.	3	3.1	**0.718958062**
Question 12 I feel pressure from social media to look attractive and pretty.	3.85	3.725	**0.6626218316**
Question 13 I would like my body to look like the female models who appear on social media.	3.35	3.75	**0.1370871751**
Question 14 I compare my appearance to the appearance of social media influencers and models.	3.2	3.65	**0.122384058**
Question 15 I've felt pressure from social media to be thin.	3.05	3.375	**0.2696562073**
Question 16 I would like my body to look like social media influencers.	3.325	3.6	**0.3171390281**
Question 17 I compare my body to the bodies of people who appear on social media.	3.5	3.775	**0.3303861358**
Question 18 I've felt pressure from social media to have a perfect body.	3.3	3.65	**0.221042415**

Question 19 I compare my appearance to the appearance of other peers on social media.	3.95	3.975	**0.9149234742**
Question 20 I've felt pressure from social media to diet.	2.675	3.05	**0.2089788495**
Question 21 I wish to look as fit and athletic as the people on social media.	3.725	3.85	**0.6314103998**
Question 22 I compare my body to that of people in "good shape."	4	3.9	**0.6842494232**
Question 23 Social media is an important source of information about fashion and "being attractive."	3	3.4	**0.1282506587**
Question 24 I've felt pressure from social media to exercise.	3.05	3.6	**0.06971519274**
Question 25 I compare my body to that of people who are fit.	0.855	3.85	**0.4823495307**
Question 26 I've felt pressure from social media to change my appearance.	3.225	3.65	**0.1571801594**
Question 27 I try to look like people on social media.	3.125	3.05	**0.7943747586**
Question 28 I am satisfied with my body.	3.2	3.075	**0.6065883563**
Question 29 I want the "perfect" body.	3.5	3.425	**0.7781351879**
Question 30 My body makes me insecure.	3.45	3.425	**0.8854519577**

Table 4. Mean and P-Value of Male (A) and Female (A)

Quantitative Questions	Male (A) Mean	Female (A) Mean	P-Value
Question 6 Which picture closely resembles the image of the ideal body type portrayed on social media?	2.775	1.375	**0.0000000336395562**
Question 7 Which of these 8 figures closely resembles your body type at this time?	3.075	2.325	**0.03357884605**
Question 8 Which figure do you think is the most attractive?	2.85	0.619	**0.00001041355959**
Question 9 If you could, which of these 8 figures would you like to look like?	2.925	1.625	**0.0000001809156688**
Question 10 I've felt pressure from social media to lose weight.	1.5	3.175	**0**
Question 11	1.85	3	**0.00005872841245**

I've felt pressure from social media to lose weight.			
Question 12 I feel pressure from social media to look attractive and muscular. / I feel pressure from social media to look attractive and pretty.	1.925	3.85	**0**
Question 13 I would like my body to look like the male/female models who appear on social media.	2.7	3.35	**0.01932020057**
Question 14 I compare my appearance to the appearance of social media influencers and models.	1.625	3.2	**0.0000000490316735**
Question 15 I've felt pressure from social media to be thin.	1.425	3.05	**0.0000000255314684**
Question 16 I would like my body to look like social media influencers.	2.275	3.325	**0.0004647525058**
Question 17 I compare my body to the bodies of people who appear on social media.	1.775	3.5	**0.00000000429839437**
Question 18 I've felt pressure from social media to have a perfect body.	1.425	3.3	**0.0000000003972377124**
Question 19 I compare my appearance to the appearance of other peers on social media.	2.05	3.95	**0.0000000001200859109**
Question 20 I've felt pressure from social media to diet	1.475	2.675	**0.000005580487052**
Question 21 I wish to look as fit and athletic as the people on social media.	2.95	3.725	**0.003587510815**
Question 22 I compare my body to that of people in "good shape."	2.425	4	**0.0000002370079541**
Question 23 Social media is an important source of information about fashion and "being attractive."	2.35	3	**0.01620910161**
Question 24 I've felt pressure from social media to exercise.	1.75	3.05	**0.00001722632046**
Question 25 I compare my body to that of people who are fit.	2.475	0.855	**0.00005507344955**
Question 26 I've felt pressure from social media to change my appearance.	1.875	3.225	**0.000008097601579**
Question 27 I try to look like people on social media.	1.825	3.125	**0.000003057525003**
Question 28 I am satisfied with my body.	3.225	3.2	**0.9188724567**

| Question 29 I want the "perfect" body. | 2.775 | 3.5 | 0.01446640072 |
| Question 30 My body makes me insecure. | 2.375 | 3.45 | 0.0001699658225 |

Table 5. Mean and P-Value of Male (B) and Female (B)

Quantitative Questions	Male (B) Mean	Female (B) Mean	P-Value
Question 6 Which picture closely resembles the image of the ideal body type portrayed on social media?	2.45	1.473	0.0004817682034
Question 7 Which of these 8 figures closely resembles your body type at this time?	3.125	2.35	0.01139603733
Question 8 Which figure do you think is the most attractive?	2.65	1.7	0.0000885806187
Question 9 If you could, which of these 8 figures would you like to look like?	2.525	1.5	0.00002643376761
Question 10 I've felt pressure from social media to lose weight.	2.1	3.625	0.00000003603576268
Question 11 I've felt pressure from social media to lose weight.	2.325	3.1	0.003108595405
Question 12 I feel pressure from social media to look attractive and muscular. / I feel pressure from social media to look attractive and pretty.	2.725	3.725	0.0009418575195
Question 13 I would like my body to look like the male/female models who appear on social media.	3	3.75	0.003626368234
Question 14 I compare my appearance to the appearance of social media influencers and models.	2.1	3.65	0.0000001280687656
Question 15 I've felt pressure from social media to be thin.	2.05	3.375	0.000006621001289
Question 16 I would like my body to look like social media influencers.	2.65	3.6	0.0006913835711
Question 17 I compare my body to the bodies of people who appear on social media.	2.425	3.775	0.000009645417867
Question 18 I've felt pressure from social media to have a perfect body.	2.175	3.65	0.000001565742449
Question 19	2.625	3.975	0.000002409978721

I compare my appearance to the appearance of other peers on social media.			
Question 20 I've felt pressure from social media to diet	2.025	3.05	**0.0006863507663**
Question 21 I wish to look as fit and athletic as the people on social media.	3.2	3.85	**0.01116144429**
Question 22 I compare my body to that of people in "good shape."	2.825	3.9	**0.0005269769276**
Question 23 Social media is an important source of information about fashion and "being attractive."	2.65	3.4	**0.005731648936**
Question 24 I've felt pressure from social media to exercise.	2.1	3.6	**0.0000007561865611**
Question 25 I compare my body to that of people who are fit.	2.75	3.85	**0.0001529231659**
Question 26 I've felt pressure from social media to change my appearance.	2.275	3.65	**0.000003778092164**
Question 27 I try to look like people on social media.	2.25	3.05	**0.007295355175**
Question 28 I am satisfied with my body.	3.175	3.075	**0.6758392983**
Question 29 I want the "perfect" body.	2.925	3.425	**0.07362118601**
Question 30 My body makes me insecure.	3	3.425	**0.05079930927**

Histograms
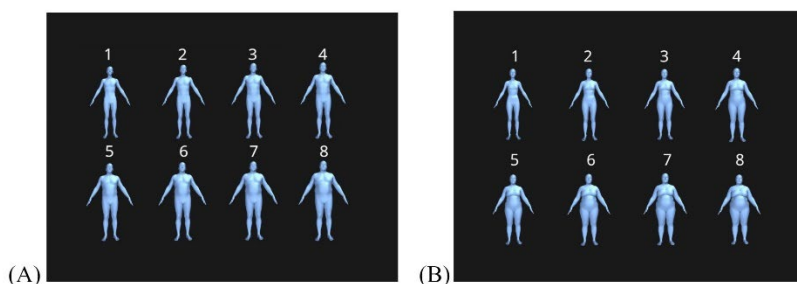
Figure 1. Eight Different body types visualized according to BMI ranging from 16 to 44 which depict unhealthy (underweight and overweight) and healthy weight ranges. (A) Visual for Male/(B) Visual for Female.

In order to analyze the data and determine the ways in which social media impacts body satisfaction, the responses of the control group (Group A) were compared to the experimental group (Group B). A t-test was then used to decide if

the differences were statistically significant enough within the two groups and within genders. Calculating the mean is also "the most accurate way of deriving the central tendency of a group of values, not only because it gives a more precise value as an answer, but also because it takes into account every value in the list" (Salgado, 2017).
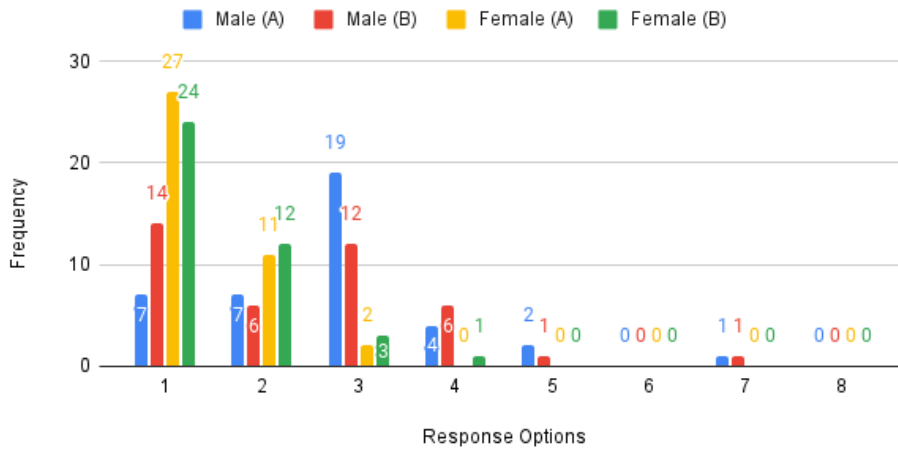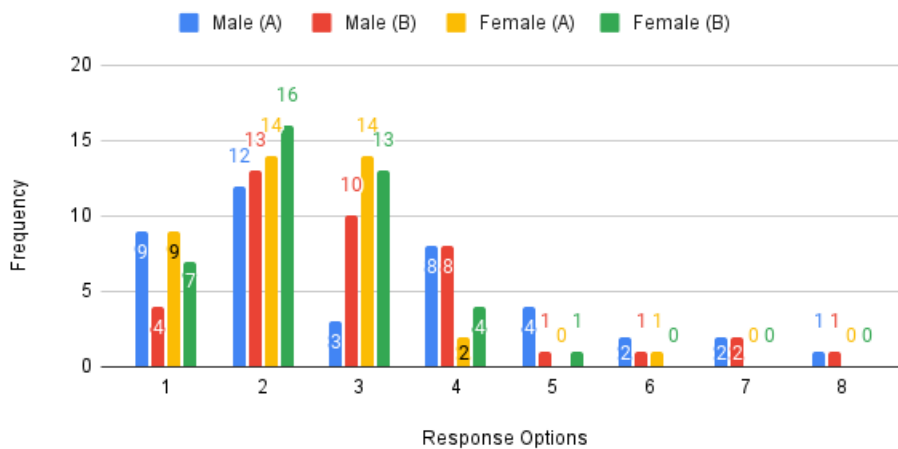

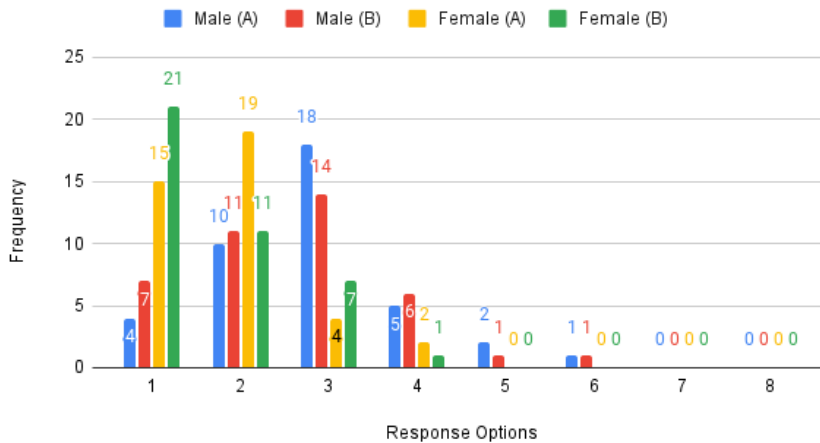**Figure 2:** Frequency of responses from male and female students in both the experimental and control group regarding the ideal body image social media projects.

The results heavily identified the three bodies with the lowest BMI, number one being the most prominent for three of the four groups. 51 females out of 80 have found that the number one choice out of the 8 bodies shown in figure 1A is the ideal body type that is portrayed on social media. On the other hand, only 21 out of 80 males found the number one body as the most portrayed but rather number three with 31 out of 80 males. This question was relevant to the study because it gathers information on what exactly social media was portraying and if it was something that was in the unhealthy or healthy BMI ranges.

Figure 3: Frequency of responses from male and female students in both the experimental and control group regarding the body types of participants.

The results heavily identified the number two and three choices as being the most frequent on females with 30 out of 80 responding with number two and 27 out of 80 for the number three option. This shows that the majority of females within my sample are of a normal and healthy BMI and weight range. For males, body number two was the most picked option with 25 out of 80 choosing it. Closely behind are options one, three, and four, with 13 out of 80 for both options one and three and 16 out of 80 for option four. This demonstrates that my participants fall most heavily on the thinner and lighter side of the BMI scale. This question was relevant to my study as it depicts the realistic body that most teenagers had in my area.

Figure 4: Frequency of responses from male and female students in both the experimental and control group regarding what figure is generally viewed most attractive.

The results for the question generally showed that the number one and two choices were most popular among females with 36 out of 80 participants selecting option one and 30 out of 80 participants selecting option two. For males, option three was most popular with 32 out of 80 people choosing it. This question is relevant to my research as it identifies my sample's general views of what is perceived as attractive despite it being a subjective opinion.
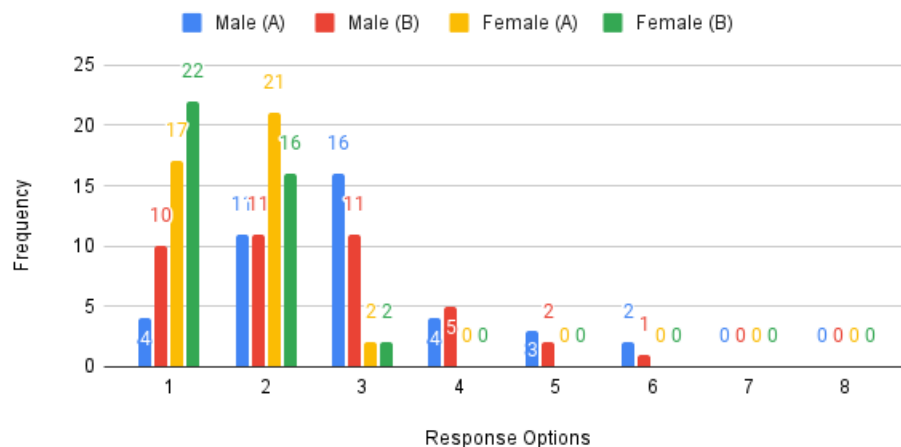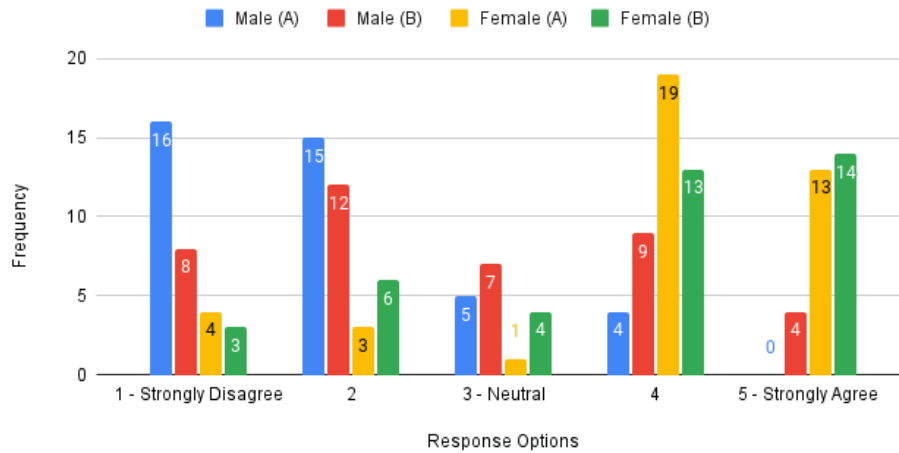

Figure 5: Frequency of responses from male and female students in both the experimental and control group regarding what figure they would prefer to look like.

The results show that close to 50% of females identified option one as the most desirable body, their option two being a close second with 37 of 80 females choosing option two. For males, option three was chosen the most with 27 of 80 male participants selecting it as the most desirable option for themselves. This question is relevant to my study as it identifies my participants' options of what they find as a desirable body for themselves if given the option.

Figure 6: Frequency of responses from male and female students in both the experimental and control group regarding if they face pressures to look a certain way due to social media.

The results showed that a large majority of young women (59 out of 80) agreed to some extent to the statement above while on the other hand over 50% of young men (51 out of 80) found that it was the opposite and that to some extent felt that they did not feel the pressure as the girls did.
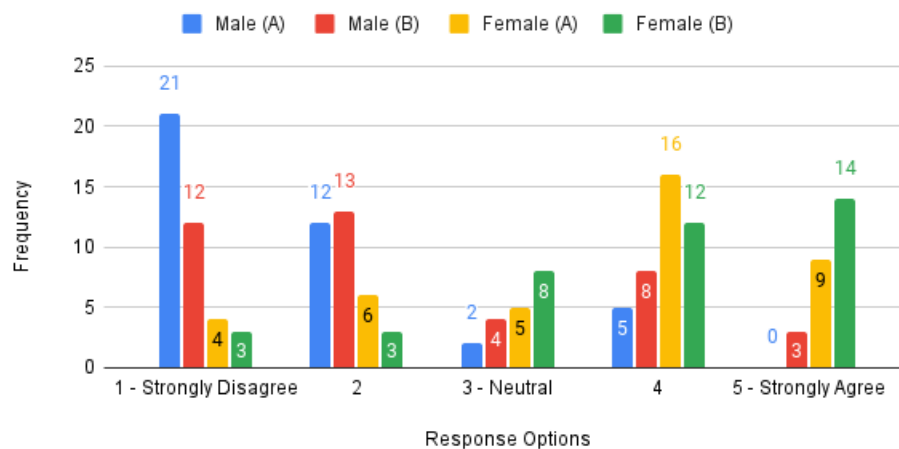

Figure 7: Frequency of responses from male and female students in both the experimental and control group regarding if they actively participated in comparing themselves to the bodies that appear on social media.

The results showed that 51 out of 80 female respondents felt to some extent that they actively compared their bodies to those who were on social media including influencers, models, and their peers. However, on the other end, 58 out

of 80 male respondents found that they disagreed with the statement provided and did not compare their bodies in the same way females did.

Analysis of Findings

The surveys' data were analyzed to elucidate the impact of social media on body image satisfaction. With social networking sites promoting the "ideal body", it can be easy to enable negative thinking amongst teenagers of both genders. Findings that are drawn from the individual's interactions largely illustrate that high school students' body satisfaction is impacted by these subtle interactions.

Findings gathered from the participants affirmed my hypothesis, which is that teenagers' body satisfaction would be negatively impacted but young women would be impacted more significantly. The information acquired from the participants shows that social media does, in fact, portray an almost unattainable and unhealthy body type for females, as 63.75% of females in both groups felt that option one in the image provided was viewed as what social media generally portrays and 46.25% of that group identified it to be the most attractive. In comparison to their male counterparts who answered the same questions, option three was selected as the body type most portrayed on social media with 38.75% of the responses. Similarly, 40% of male respondents found that it was also the most attractive and 33.75% of respondents identified it as the most desirable body to have. In contrast to their female counterparts who identified option one as their most desired and attractive body, option three was a representation of a normal and healthy BMI. This clearly demonstrated that within both genders, females were impacted more significantly as there seemed to be a more unattainable standard set for them to achieve which confirms this paper's claim that social media would negatively impact young women more significantly than young men.

Additionally, when questioned about pressure from social media to change the way one looks, 73.75% of women to some extent agreed that they felt pressure to do so while 63.75% of men felt to some extent the exact opposite. When presented with questions regarding social media habits such as comparing one's body to those on social media, not only did 78.75% of women admitted to actively doing so, 57.5% of them would like their body to resemble those of social media influencers and models. This further confirms my hypothesis that women from both groups were impacted more severely by social media due to there being a larger emphasis on women to concern themselves regarding their appearance in comparison with their male counterparts.

Limitations

Concerning limitations in this study, responses could have been affected by demographic region as students in these areas might face peer pressure and thus swaying the responses despite the anonymous nature and the usage of the 5-point Likert scale aiming to prevent this. Even though anonymity has been secured, participants also may not feel comfortable providing answers that depict them unfavorably, fearing that their vulnerabilities will be taken advantage of. On the same line of reasoning, this fear can lead to dishonest and unreasoned responses.

In addition to the limitations in participant responses, the time spent observing the images for the experimental group possibly was too short to garner any significant results since social media subtly impacts others over long periods of time. However, it was done so for feasibility purposes within the given timeframe. Despite my experiment which aimed to find a correlation through the implementation of an additional section where the experimental group was to view images of popular social media influencers before continuing onto a reflection of their interactions with social media and their body satisfaction to see the impact it would make, there were no significant results as the time spent observing those images were far too short to truly make an impact on one's body satisfaction in the span of the minute that was allotted for participants. In this aspect, the experimental part of my survey did not work as it failed to identify a correlation between social media negatively impacting teenage body image through that activity. The means in the data table between Group (A) and Group (B) for both genders per question was not significant

enough to prove that social media had to capabilities to impact one instantly but rather over long periods of time as demonstrated through a study by Deanna Puglia who focused on the direct correlation between different social media platforms and their effects on body image in young women and found that over a nine-day exploratory investigation period, participants who engaged in higher levels of Facebook use also displayed significantly lower body satisfaction than those with lower Facebook use (Puglia, 2017).

In addition, in-person interviewing should be conducted to obtain more detailed information and differing perspectives from participants. This would have allowed for a chance for participants to speak their mind regarding what specifically affects them, provide commentary regarding the role social media plays in their lives, and pinpoint more specifically the factors that play into harboring a culture of thinness in social media. Another method that could be used more effectively in further research, is the pre-test/post-test technique. This technique was not able to be fully utilized due to the potential of indirectly influencing responses and data because the respondents would have prior knowledge of what the survey was about.

Implications

As for the implications of my study, social media platforms, mental health professionals, and teenagers are real-world people that could benefit from and use the findings from my study in their work and lives. Social media platforms could use my results to be more mindful of the content that they popularize and allow younger children and adolescents to access. It also allows them to be more mindful of the subtle message they are sending to the younger generation from their representation in the media as well. For mental health professionals, they could use my findings when dealing with adolescent patients that struggle with body image issues. When recommending treatment options or pin-pointing areas of problems, my findings will remind them of what a large role social media has in teenagers' lives and what kind of influence it might have. Students could use my findings to recognize the hold social media can have over their lives and the importance of prioritizing mental wellbeing within their lives. They could remind students that while appearance and status are important, they should not completely control their lives to the point in which they are dealing with negative emotions towards their bodies.

Conclusion

To conclude, this study allows for a basic understanding of the impact and influence of social media on adolescent lives. While social media engagement is generally a part of the modern lifestyle, the age and the extent to which these individuals are involved and their logic for interaction is unique to the participant, adding to the differing opinions on the topic. Overall, the study confirms the hypothesis of the negative and detrimental impact of social media on teenage body satisfaction because although social media aids in delivering information and communicating ideas to the public, social media plays a larger role in influencing the minds of young impressionable audiences than is believed and it can simply be viewed as a simple advertisement or building a brand and therefore is not completely seen as detrimental due to its "normative" nature. My results found that while both genders were impacted negatively by social media's promotion of the "ideal" body, and more specifically young women's body satisfaction and body image were being impacted more significantly and deeply than young men.

With the increasing growth of social networking sites, becoming influenced by advertising or social media influences is increasingly easier, as more people can view more media and absorb more ideas through the click of a button. Comprehending social media and its influence over body satisfaction can aid people in recognizing the role it plays and re-evaluating the information released to the young. As found in a 2018 Common Sense Media report, social media is playing an increasing role in the lives of young individuals, and this study helps close the gap by exemplifying the impacts on the upcoming generation.

This study sought to recognize and understand the probable dangerous effects of an unrealistic body standard as portrayed in social media on body image and satisfaction in teenagers. Due to the timeframe of this study, there are several areas where further research could be explored and required. Having a larger and more representative sample of teenagers is the first step in finding more credible and undeniable evidence that backs up this understanding.

Further research should incorporate an older age range. Many participants, ranging in ages from 14-18 used in this study are more inclined to have low to medium self-esteem and body confidence and are therefore certainly more affected by the media's portrayal of an unattainable body. It is hypothesized that the older generation is less impressionable and has a medium to high self-esteem; therefore, are more suitable to have higher body image and self-esteem due to having a more mature perspective on the concept of thinness and the unrealistic body standard in social media. Previous studies have shown that young audiences of both genders are affected by social media's usage of thin models and influencers on the platform and in advertisements. For example, Cusumano and Thompson and Morry and Staska's main findings were that internalization of social norms of appearance through social media accounted for significant and substantial variance however this could be different for an older age group and present as an underlying factor in the study (Cusumano and Thompson, 1997; Mory and Staska, 2001). Although the data seems to be suggesting this concept, it is impossible to come to an undeniable and highly credible finding to the study since internalization is unable to be proven through the approaches that were used.

Acknowledgments

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