THE RELATIONSHIP BETWEEN SOCIAL MEDIA, BODY DISSATISFACTION AND EXERCISE BEHAVIOR OF MALES



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Abstract

Body dissatisfaction research has placed large emphasis on the female body but recent studies have discovered evidence of male body dissatisfaction as well. The current study examined the relationship between body dissatisfaction, social media usage related to fitness and exercise behavior. Past research found that males who experienced exposure to the ideal male body image also showed higher body dissatisfaction compared to individuals who were not exposed, providing a plausible link between fitness related social media and body dissatisfaction. Those two measures were represented by the Revised Male Body Attitudes Scale and self-reported average number of hours per week spent using social media to view fitness related material, respectively. The dependent variable of the study was exercise behavior and measured by the Godin Leisure Time Exercise Questionnaire. Although past research has shown relationships between exposure to the ideal male body image and exercise and body dissatisfaction among participants, multiple regression analysis did not indicate any significant results. However, a main effect between social media usage and body dissatisfaction was present among the participants.

Key Words: body dissatisfaction, exercise behavior, social media usage

The Relationship Between, Social Media, Body Dissatisfaction and Exercise Behavior of Males

Recently, younger populations have become the target demographic for campaigns of healthier lifestyles in order to promote longevity of youths. According to past research, adolescents are exposed to numerous activities as well as substances, including drugs and alcohol, that are risk factors to overall health (Eaton, Kann, Kinchen, Shanklin, Flint, Hawkins, Harris, Lowry, McManus, Chyen, Whittle, Lim, Weschler, 2011). Research has placed emphasis on high school students and priority health risk factors prevalent to their age group, such as obesity, which have been identified as preventable leading causes of death and disease among adolescents and adults. Obesity is one of the most prevalent health risk behaviors for youths, within United States' national overweight problem and has received national attention for a long time. Countless programs through recent years have made attempts to create nationwide awareness and prevention of childhood obesity.

Many of these campaigns contribute the cause of obesity in the United States to increasing rates of internet and social media usage from the younger demographics. With continuous advancements in technology, human lives have become easier to manage, which provides more opportunities for individuals to engage in sedentary behavior, thus leading to obesity. However, there are many that would argue against that notion based on the findings of a recent study conducted by Vaterlaus, Patten, Roche and Young (2015) who discovered a possible relationship between social media usage and motivation to exercise among young adults. First hand participant accounts stated that many websites or online exercise programs or forums provided them with motivation and new material for exercise and fitness tips. Many of the participants discussed how these websites, which others had previously blamed for the country's

obesity problem, had provided them with fitness information and helpful advice along with motivation to exercise. These websites allow individuals to share and collaboratively view new fitness content and provide social support for one another through postings. Social media sources such as Facebook, Twitter, Instagram and Pinterest, are now common ways for younger individuals to act and engage in social behavior with one another. As technology has grown, there is no longer a need for individuals to be physically present with one another in order to converse or share information, which leads to a large amount of social interactions occurring online. The premise of social learning, or learning from other's behavior, is one of the many factors that has been found to play a role in body dissatisfaction, and with continuous posting of fitness and exercise related material on social media, it is most likely only a matter of time until another individual investigates the material for themselves.

Modeling other's behavior to obtain the ideal male body image is one of the many ways that social learning can be associated with body dissatisfaction. Diet and exercise habits can be two common types of behavior that are fairly easy for individuals to model. With the addition of social media, it only makes matters easier for young groups of peers in terms of modeling other's behavior and sharing information of common interests. Examining fitness related content online usually leads to links with images of the ideal male body image and according to Labre (2005) exposure to the ideal has been related to body dissatisfaction. Labre (2005) assigned male participants into two groups, readers and non-readers of fitness magazines. The results suggested that those who read fitness magazines and articles about building muscle mass had higher body dissatisfaction compared to those in the control group who read an article about unrelated neutral content. Even though readers of fitness magazines were thought to have previous concerns of body image, there were similarities in the descriptions of the ideal male body type between the

two groups of readers and non-readers. Given these results, it is highly plausible that individuals who view articles online or use Social media to gain information about fitness are likely to also have high rates of body dissatisfaction, modeling the results of Labre's research (2005). This provides empirical evidence that exposure to the ideal male body image can decrease body dissatisfaction and additionally provides merit to the theory that viewing fitness related content on social media may also be related to body dissatisfaction among males.

Social Media Usage

Social media has previously been researched as a motivation agent for healthier eating and exercise habits (Vaterlaus, et al., 2015). Researchers focused primarily on the young adult population due to the increased regular use of technology, whether at work or for personal enjoyment, when compared to older age cohorts. Investigators sought to disprove that technology usage was promoting unhealthy habits in the young adult generation. Vaterlaus et al. (2015) found that many of their participants reported that using technology provided them with motivation and advice for future exercise. One area of particular interest for this current study was the results related to social media usage and exercise motivation. Participants gave testimonies describing how following "exercise pages or organizations on Instagram, Pinterest, and Facebook" (Vaterlaus et, al. 2015, p.154) kept them motivated to work out. Other participants also stated that using social media for fitness related information also gave them access to new types of exercises or fitness plans. Vaterlaus et, al. (2015) were unable to prove any causation of the participants' exercise behavior in relation to their social media usage, but brought about an interesting relationship between exercise motivation and social media usage related to fitness. The participants' actions via social media outlets were able to influence the

motivation of other users; participant behavior, in a sense modeled the motivation for similar behavior in others just as it would in any other social setting.

Another example of social comparison relating to body dissatisfaction is fat talk, which Corning and Gondoli (2012) define as negative talk about weight, and found that those who are likely to engage in this form of social comparison are also uncomfortable with their own body image. There is large emphasis placed on body dissatisfaction research being predominantly about women, but males also engage in similar behaviors as women regarding body image (Engeln, Sladek & Waldon, 2013). However, most men discuss issues surrounding the topic of building muscle and strength as opposed to losing weight and slimming down, striving for the thin ideal (Engeln et al., 2013). Researchers have examined the new phenomena of muscle talk in the population of college aged males and their findings suggest that both males and females tend to have lower body dissatisfaction after engaging in both forms of social comparison, fat talk for females and muscle talk for males (Engeln et al., 2013).

Social Learning and Media

Some of the notions about behaviors related to physical activity, eating habits and perceptions of the self are grounded in the theory of social learning. According to Wouters, Eveline, and Geenen (2013) adolescents who associate together also model the actions of one another. What this means in terms of social media is that individuals who share common interests are likely to follow or friend each other, exposing themselves to each other's opinions, ideas and beliefs. Bandura (1971) believed that social learning was obtained through first-hand experiences and by observations through those around them in an individual's immediate surroundings but as discussed earlier, it is plausible to view online interactions between individuals in a similar manner. With these new forms of connection, individuals are able to

model others behavior without even being in the same vicinity, social media allows them to do that with the click of a button.

Rote (2015) defines social media as the means through which friends stays connected and view each other's actions via pictures or status updates, and Facebook as being one of the most prevalent social media sites. Other forms such as Instagram allow users to upload pictures and videos to the platform as well as additional social media sites, Twitter and Tumblr. With the ability to interact through social media, it can be viewed as a new platform in which social learning can occur. Individuals are able to replicate other's behavior through posts of images or status updates and it reaches more individuals than it would in a face-to-face setting.

Rote's study examined the relationship between Facebook usage and exercise habits among female college freshman and found that social media usage was not among one of the predictors for improvement of physical activity. Results indicated that mostly baseline physical activity levels, rather than involvement with social media among the participants was the most significant predictor of future exercise behavior. The results of Rote (2015), contradicts those of Vaterlaus et al. (2015) who found that social media was influential and motivational for physical activity. There is a similarity between the two studies however, both groups of participants in the studies regularly engaged in physical activity. An important factor to consider when researching exercise behavior because those who regularly participate in physical activity are more influenced by social media according to Vaterlaus et al. (2015). Those who are initially motivated to exercise are also likely to research online or like pages or links associated with fitness and share those links and information with others that they are friends with or who follow them. Using social media as a means of spreading content much like popular media has in the past but at a much more efficient capacity

Male Body Dissatisfaction

Many forms of popular media have portrayed body shapes that are uncommon and unrealistic for a healthy woman. One of the most common depictions of the ideal female body depicted in American culture is the iconic "Barbie". From a very young age, girls are exposed to Barbie dolls and most people knew that the doll's actual body size proportions were like those of supermodels in magazine and television advertisements. Women have been dealing with this issue for quite some time and now men have been showing similar symptoms of body dissatisfaction after consuming different forms of media with unrealistic body proportions for their gender. Pope, Olivardia, Gruber and Borowiecki (1999) examined the trend of young boy's action figures and found that much like the Barbie doll's unobtainable thin waist and large chest, trends of boy's actions figures have changed in muscle proportions over the years to an unrealistic size as well. Proportions of the action figures in this study were compared to measurements of current body builders and when compared to the dolls the body builder's muscle masses were much smaller (Pope, et al., 1999).

During earlier research focusing on male body image dissatisfaction, high rates of satisfaction were found (Galli & Reel, 2009), but this was occurring when the majority of studies still emphasized women's body dissatisfaction. Even though earlier research focusing on men's body dissatisfaction found that males tended to report fairly high rates of body satisfaction, those findings were the result of invalidly worded instruments because they had been used to examine female body dissatisfaction according to Galli and Reel (2009). Their research exposed the reasoning behind why it has taken until recently to examine males under a different set of circumstances in regards to body image. Most men desire a broad set of shoulders that taper to their waist line, while most women strive for a thinner waist and larger breasts according to

Drewnowski and Yee, (1987) as cited in Engeln, Sladek, and Waldron (2013). However, the manner in which men and women are exposed to the ideal body image yield similar results, Agliata and Tantleff-Dunn (2004) have proven that men show higher body dissatisfaction once they view images of the thin muscular ideal body. Those images are commonly found through social media sites that direct users to fitness related materials or exercise groups. Similar to women, men are subjected to the ideal body image through popular media and even now through social media and advertising. Many are unaware of the dangers associated with high levels of body dissatisfaction due to the behaviors that follow poor self-image.

Risks Associated with Body Dissatisfaction

Consequences of high rates of body dissatisfaction can vary but long term effects can be extremely detrimental to young males as demonstrated by Blashill and Wilhelm's (2014) longitudinal study. Blashill and Wilhelm (2014) recruited male participants at the age of 16, then following them for13 more years into adulthood. Findings suggested that the participants who initially reported a distorted body image, both under and overweight, also showed signs of major depression later on (Blashill & Wilhelm, 2014). Within this study it is clear that body dissatisfaction has a strong tie to depression, which could lead to other disorders.

Body dissatisfaction can lead to an obsession with trying to improve one's body. One form of preoccupation, Muscle Dysmorphia, (now known as Body Dysmorphic disorder) is characterized by Pope, Pope, Menard, Fay, Olivardia, and Phillips (2005) as men that consider themselves very small or puny even if they are in fact extremely muscular. As a result of body dissatisfaction, individuals neglect other important things going on in their life and spend their time dieting and working out on very strict regiments. Any time that there is a disorder like this one that includes an obstruction of day to day life and obsession with perfection it is imperative

to do everything in order to treat and prevent it from reaching this serious point. Conveying these hazards to males who are deemed at risk or display signs of body dissatisfaction is crucial.

Effects of Exercise

Few studies have examined the direct relationship between body dissatisfaction of males and exercise behavior. The current study will measure participants and their exercise behavior based on measures of traits, as opposed to a study conducted by Vock, Hechler, Rohrig, and Legenbauer (2009) in which the researchers examined the changes of participant's state of body dissatisfaction after a single exercise session. Their experiment placed regular female gym goers into two groups, an exercise experimental group and a reading control group while examining their body dissatisfaction pre and post treatment. Researchers decided that an hour of endurance training was appropriate because it is the most common form of exercise that individuals engage in to slim down and loose weight. This is consistent with the claims of many previous such as the study by Kostanski, Fisher and Gullone (2004) stating that the predominant driving force behind female body dissatisfaction is a desire to be thinner, while males tend to strive more for muscularity.

Researchers claimed that their study was, "the first to demonstrate that state body image is immediately affected by a single physical exercise session" (Vock et al., 2009). As of now there is limited research examining the effects of a single exercise session on male's body satisfaction. The reason being that there are not many inventories that measure male body dissatisfaction specifically on a state level. Most measures of body dissatisfaction are trait measures and it would be invalid to use such a measure for the effects of one exercise session. That is why the current study will look at the average exercise patterns of participants along with

a trait measure of body dissatisfaction, this will ensure that responses are consistent and unaffected by a single exercise session.

Current Study

The current study measured the relationship between self-reported hours per week spent using social media for viewing fitness or exercise related material and body dissatisfaction, as predictors of exercise behavior. Correlations have been drawn between exposure to the ideal male body image and body dissatisfaction in previous research (Agliata & Tantleff-Dunn, 2004). However, the current study will measure the relationship between each predictor variable and the criterion of exercise behavior separately. Both exposure to media and body dissatisfaction have already been correlated based on the results of study previously mentioned, therefore they will be used as predictors in the current study, in relation to the criterion of exercise behavior.

It was hypothesized that an interaction will occur between the three variables, body dissatisfaction, social media usage related to fitness and exercise behavior. Participants that reported using moderate amounts of social media related to fitness and exhibited symptoms high body dissatisfaction were the most likely to record the highest amount of exercise behavior along with those who report low body dissatisfaction and high social media usage. Additionally, those who currently or previously identified themselves as athletes were predicted to demonstrate higher body dissatisfaction than those who were/are not currently athletes based on the results Galli and Reel (2009) which stated that of their collegiate male athlete participants, eighty percent felt dissatisfied with some aspect of their physique. If the study supports the hypothesis, it could lead to future advancements within the exercise/fitness community. Rote (2015) mentions that current usage of social networking is able to deliver exercise and fitness programs

efficiently and encourage participation amongst peers. Combining social media and exercise makes it easier for individuals to stay in touch while reinforcing each other's healthy habits.

Study Design

The study examined the relationship between body dissatisfaction, social media usage and exercise behavior in relation to exercise behavior among a population of college aged males. Body dissatisfaction was measured with the Revised Male Body Attitudes Scale (R-MBAS) which was assessed first to avoid priming participant's answers related to body dissatisfaction. Number of hours spent using social media related to fitness was measured next with a continuous variable scale modeled after a similar inventory from a study conducted by Mahan, Seo, Jordan, and Funk (2015). Mahan et al. (2015) examined the relationship between the amount of time spent using social networking sites and running involvement. Finally, exercise behavior was made quantifiable by using the Godin Leisure Time Exercise Questionnaire (Godin and Shepard, 1985) measuring the frequency and degree of exercise that participants regularly engaged in physical activity during a weekly basis.

Methods

Participants

For this study, undergraduate male participants (N = 30) ranging in age from 18-23 (M = 19,70, SD = 1.236) from a small liberal arts college in Western Pennsylvania provided responses to three different variable measurements, number of hours using social media related to fitness, body dissatisfaction and average weekly exercise behavior. Participants were recruited through the Allegheny College SONA system. All participants completed the questionnaires and demographic form (See Appendix A) online using the software, which took participants no longer than 20 minutes to complete. Due to the online aspect of this study, the identity of the

participants was kept completely anonymous to the researchers and participants were only known by the student identification number given to them by SONA.

Inventories

Body Dissatisfaction.

The Revised Male Body Attitudes Scale (See Appendix B) developed by Ryan, Morrison, Roddy and McCutheon (2011) contains fifteen items on three separate subscales, muscularity, body fat and height on a five-point likert scale (ex: "I think my arms should be more muscular" 1= never 5=always). The total score of all three categories provide overall body dissatisfaction score with higher values equating to more body dissatisfaction than lower scores. Two items on the scale are reversed scored, item number seven "I feel satisfied with my muscularity" and item fifteen "I feel ashamed of my height". Ryan, et al. (2011) claim that the internal consistency and construct validity of the measure hold true towards men's attitudes of their physical appearances and for this investigation the reliability yielded from Cronbach's alpha ($\alpha = 0.908$) proved that the measurement was highly reliable.

Social Media Usage.

The variable of social media usage was assessed using self-report measure of the participant's average number of hours per week spent viewing fitness related material through identified forms of social media, examples included, Facebook, Pinterest and Instagram (See Appendix C). Participants indicated their response on a five-point Likert scale (0-1 hours = 1, and 5+ Hours = 5). For example, if a participant used social media related to fitness or exercise for 0-1 hours then their score will be given the value of 1. The measure was modeled after a similar Likert scale used in a study by Mahan et al. (2015), which gauged the amount of time runner's spent online viewing running related material by asking, "In general, about how many

hours do you spend each week on the SNS selected above for the purpose of running information?" (Mahan et al., p.187, 2015). Due to a lack of variability among the participant's scores, this measure was condensed for statistical purposes into a low and high group. Responses of 0-1 hours of viewing social media related to fitness were given a value of one, but all other scores were filtered into the value of two in an effort to even the variability of participant's responses.

Exercise Behavior.

The Godin Leisure-Time Exercise Questionnaire (Godin & Shephard, 1985) was used to measure average exercise behavior among participants (See Appendix D). The first item asks participants to identify the average number of times during their leisure time throughout a seven-day week they engaged in more than 15 minutes of three different levels of exercise (Strenuous ie: running, hockey, football, soccer, etc., moderate ie: fast walking, baseball, tennis, cycling, etc., and mild ie: yoga, archery, fishing, etc.). The second item asks the frequency of which they engage in these activities (ex: often, sometimes, rarely) and is only there as a qualitative measurement of frequency. The measure has previously been used by a college sample of participants in a study conducted by Giacobbi, Tuccitto and Frye (2007) which measured how different levels of exercise affected students during academically demanding periods. Scoring instructions are accompanied with the scale for researching purposes and the total was the quantity that measured self-reported exercise behavior.

Procedure

The Institutional Review board of Allegheny College granted approval of the study prior to any data collection. Participants were given instructions to sign-up for the study online using SONA, and online research software, using their research participant ID number given to them

through the SONA software. Only after providing voluntary informed consent (See Appendix E) were the participants instructed to complete the R-MBAS (Ryan et al., 2011), the self-report of social media usage and the LTEQ (Godin & Shepard, 1989). Participants were only known to the researchers by their participant identification number given to them through SONA. The study did not take participants more than 20 minutes. Participants responded independently to all of the materials previously listed in the methods, however the R-MBAS (Ryan et, al. 2011) was presented first so that the exposure from the other two items would not affect the scores of this measurement by priming the participant's responses. Upon completion of the study, participants received an electronic debriefing statement (See Appendix F), discussing the importance of new research in the field of male body dissatisfaction, specifically how males have been under studied and that more research in the area is necessary in the future. Additionally, the form also describes the relevance of the current study and explains that the participant's responses were used to examine the possible relationship between body dissatisfaction and social media usage related to fitness and also exercise behavior. There were no reportable incidents during the conduct of the research.

Results

Initial multiple regression analysis was conducted to test if body dissatisfaction and social media usage related to fitness predicted the participant's exercise behavior. Results of the regression indicated no relationship (R^2 = .209, F(3,29)= 0.209, p =.101) of the interaction between body dissatisfaction and social media usage related to participant's exercise behavior (β = 0.249, p = 0.287) disproving the initial hypothesis.

However, additional analysis revealed an apparent trend between media usage and exercise behavior with the high usage participants displaying greater exercise behavior (M =

69.5, SD = 28.18) than participants in the low usage group (M = 41.09, SD = 29.7). Pearson's Correlation Coefficients exposed that the trend showed no significant relationship between body dissatisfaction and exercise behavior for both the low, r (20) = -.09, p = 0.69. and high media usage groups, r (6) = .455, p = 0.257. Further analysis additionally discovered a significant main effect between participant's social media usage related to fitness and body dissatisfaction, $t(28)$ = -3.81, p = 0.001). Figure1 below depicts the main effect with the high media group reporting greater body dissatisfaction scores (M = 49.75, SD = 13.956) compared to participants in the low media group who reported lower body dissatisfaction scores (M = 34.63, SD = 7.6) on the R-MBAS (Ryan, et al., 2011). Although not significant, participants that identified as a current or former athlete (n = 19) did show slightly higher body dissatisfaction scores (M = 39.84, SD = 12.11) compared to those who did not (n = 11) identify as a current or former athlete (M = 36.63, SD = 10.97).

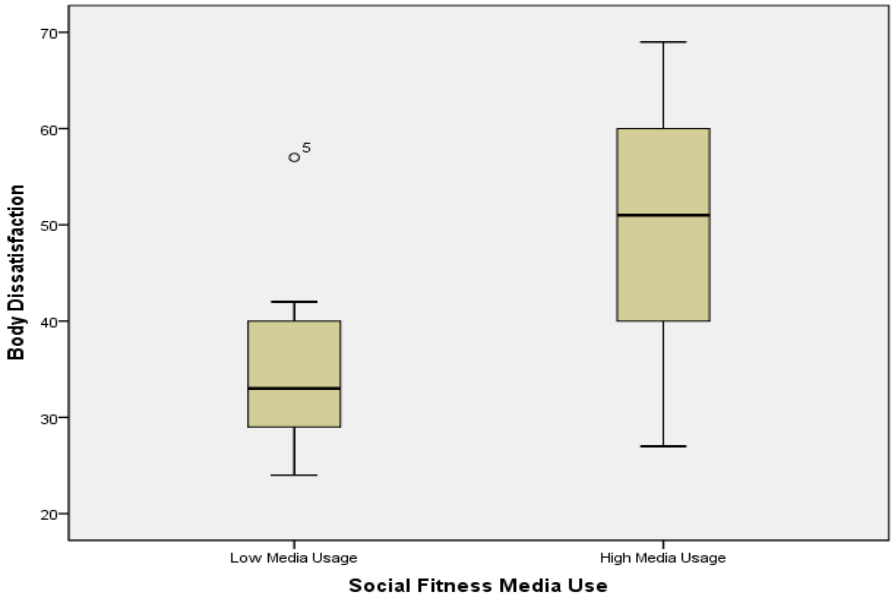


Figure 1. Body dissatisfaction by media usage group (Low and High)

Note: Although data point number five is an extreme outlier for the low media group, it did not affect the statistical significance during data analysis.

Discussion

The purpose of the current study was to observe the relationship between social media usage related to fitness, body dissatisfaction and exercise behavior in a population of college aged males. Results were inconsistent with the hypothesis, and initial multiple regression and further data analysis revealed that even though the descriptive statistics displayed a positively correlated trend between social media usage and exercise behavior, the relationship was not statistically significant.

However, previous research conducted on a population of college aged males using the same measurement for exercise behavior, the LTEQ (Godin & Shepard, 1985) reported an inverse relationship between exercise behavior and body dissatisfaction (Hausenblas & Fallon, 2002). Results from the study suggested that, "males who reported greater exercise behavior also had higher body satisfaction and lower social physique anxiety" (Hausenblas & Fallon, 2002, p. 183). The results of Hausenblas & Fallon (2002) could be interpreted in terms of the current study as those who exercise more frequently do not exhibit symptoms of body dissatisfaction, and statements of participants from Vaterlaus et al. (2015) would also add that those who are already physically active also seek out fitness related information and would most likely exhibit high media usage as a motivational factor.

Although results from Hausenblas & Fallon (2002) and Vocks et al. (2009) both found that males and females who exercise more frequently as well as participants placed in exercise groups show less body dissatisfaction than participants who do not exercise, respectively. This was not the case for the current study, results revealed a positive trend between exercise behavior and social media usage related to fitness in addition to a significant correlation between body dissatisfaction and social media usage. Individuals who reported greater exercise behavior also

displayed higher body dissatisfaction scores, contradicting the findings of Hausenblas & Fallon (2002). Although exercise has been proven to improve state measures of body dissatisfaction in a population of women, stating that post-exercise they perceived their bodies to be slimmer (Vocks, Hechler, Rohrig, & Legenbauer, 2009). Vocks et al. (2009) focused solely on a female population and found that females place greater emphasis on body tone, weight control and mood as reasons for exercise when compared to males who exercise mostly for fitness reasons according to Furnham, Badmin and Sneade, (2002) which is a common trend with body dissatisfaction research. A possible explanation for the contradicting results could be due to the lack of variability of responses among participants. In an attempt to account for the lack of variability a new variable termed media group was created to condense the original five categories of social media usage related to fitness into two sets, low and high. The new variable grouped participants that logged one or less hours of viewing social media related to fitness into a low group (n = 22). Those who reported viewing two or more hours of social media related to fitness were placed in a high group (n = 8).

Future research involving body dissatisfaction and exercise behavior should examine if the form of fitness-related material, print or online, will affect state body dissatisfaction and exercise motivation. This will create a more specific operational definition for exposure to the male ideal body image through fitness related content. Additionally, future research should determine the directionality of the relationship between body dissatisfaction and exercise behavior for both men and women. Effects of state body satisfaction after single exercise sessions for both males and females should also be explored in future research, using the knowledge of body type ideals and fitness programs that produce slimming and muscle building accordingly for males and females, respectively. Even though the findings from this study did

not support the hypothesis that body dissatisfaction and social media usage are related to exercise behavior**,** it did provide findings of trends that contradict other research. The knowledge gained from body dissatisfaction research can provide useful information for many individuals, whether they are college and professional athletes or just everyday gym goers.

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Appendix A

Demographic Form

1. Age
2. Class Standing

   Freshman____ Sophomore____ Junior____ Senior___
3. Have you ever/ or are currently a varsity athlete?

   Yes____ No____

Appendix B

Revised Male Body Attitudes Scale (R-MBAS)

Responses:
1 = "Never" and 5 = "Always" and for reversed Items 1 = "Always" and 5 = "Never".

Muscularity

1. I think I have too little muscle on my body.
2. I think my legs are not muscular enough.
3. I think my arms should be more muscular.
4. I feel embarrassed about my muscularity.
5. I think my back should be more muscular.
6. I think my chest should be more muscular.
7. I feel satisfied with my muscularity[a].

Body Fat

8. I think my body should be leaner.
9. I think I have too much fat on my body.
10. Eating sweets, cakes, or other high calorie food makes me feel fat.
11. I feel excessively fat.
12. Seeing my reflection (e.g., in a mirror or window) makes me feel badly about my body fat.

Height

13. I wish I were taller.
14. I am satisfied with my height[a].
15. I feel ashamed of my height.

[a]Reversed Scored Item

Appendix C

Social Media Usage

1. How many hours on average per week do you spend on social media viewing fitness related material? (Ex: Following fitness pages or accounts on Facebook, Instagram or Pinterest)

Responses:

0-1 Hour	1-2 Hours	3-4 Hours	4-5 hours	5+ Hours
1	2	3	4	5

Appendix D

Godin Leisure-Time Exercise Questionnaire

1. During a typical 7-Day period (a week), how many times on the average do you do the following kinds of exercise for more than 15 minutes during your free time (write on each line the appropriate number).

Times Per Week

a) STRENUOUS EXERCISE

(HEART BEATS RAPIDLY) _____

(e.g., running, jogging, hockey, football, soccer,

squash, basketball, cross country skiing, judo,

roller skating, vigorous swimming,

vigorous long distance bicycling)

b) MODERATE EXERCISE

(NOT EXHAUSTING) _____

(e.g., fast walking, baseball, tennis, easy bicycling,

volleyball, badminton, easy swimming, alpine skiing,

popular and folk dancing)

c) MILD EXERCISE

(MINIMAL EFFORT) _____

(e.g., yoga, archery, fishing from river bank, bowling,

horseshoes, golf, snow-mobiling, easy walking)

2. During a typical 7-Day period (a week), in your leisure time, how often do you engage in any regular activity long enough to work up a sweat (heart beats rapidly)?

OFTEN	SOMETIMES	NEVER/RARELY
1. ___	2.____	3.____

Appendix E

Informed Consent Form

Allegheny College

Department of Psychology

Informed Consent for Participants

Social Media & Exercise Behavior of Men	Principle Investigator:	Faculty Supervisor:
	Alex Ciorra	Dr. Lauren Paulson

PLEASE take your time to read the following information carefully. Your signature at the end of the document is your compliance to take part in the study and that you are of at least 18 years of age. Upon request a copy of this form can be made readily available to you. If at any time during this study you feel uncomfortable with what you are asked to do or disagree with the methods being used, you are allowed to withdraw yourself from participation with no consequences. Also, upon Completion of the study there will be a chance to enter into a raffle for a $25 dollar gift card to a local restaurant.

Description of Study: You will be asked to respond to a series of surveys relating to self-perception, social media usage, and exercise behavior. The total number of items from all three inventories amounts to 20 statements and should take no longer than 30 minutes. Please answer to the best of your knowledge and ability.

Potential Benefits and Rationale: Many males within this age group rarely think about their social media habits and exercise behavior and men are understudied within this area of research.

Risks Associated With Study: There are minimal risks with this study, meaning that situations you encounter during your participation will not be greater than those you would encounter in real life. To minimize some of the risks that could possibly occur, scores and identities will be anonymous and scores will be linked to a participant ID# given through SONA. If for some reason you feel that you endured any harm due to some of the sensitive information requested for study you can contact the Allegheny College counseling service at 814-332-3357 or the Institutional Review Board chair here at Allegheny, Jialu Streeter jstreeter@allegheny.edu

Right to Information: As a participant you will have the right to view the results, if you wish to see them please contact: Alex Ciorra 412-983-8255 or ciorraa@allegheny.edu

Unanswered Questions: If there is anything presented above that you do not understand, or if any questions arise during the study please do not hesitate to ask. You can contact the primary researcher Alex Ciorra at ciorraa@allegheny.edu or the research supervisor Dr. Lauren Paulson at lpaulson@allegheny.edu with any questions or concerns about the study.

Appendix F

Debriefing Form

Thank you for your participation in the study examining the relationship between social network usage, body dissatisfaction and exercise behavior. The rationale for this study came from previously established relationships between exposure to the ideal male body image and body dissatisfaction, in addition to social media usage and exercise behavior. The hypothesis was that those with high body dissatisfaction and the most recorded time using social media related to fitness will in turn have the most exercise behavior and that body dissatisfaction was most strongly associated with exercise behavior.

Recent Research**:** Previous research has already determined there is a positive relationship between exposure to the male ideal and body dissatisfaction. Recent studies have also identified social media related to fitness as a motivator for exercise habits in young adult populations.

How was this study different?**:** Many studies have looked at women's body dissatisfaction, consumption of social media and the body image concerns or exercise habits that accompany them. No studies so far have looked at the relationship between only males and social networking site usage along with exercise behavior and their body dissatisfaction.

What's the purpose?**:** If the study yields a stronger positive correlation between body dissatisfaction and exercise, then young adult males are most likely exercising because they are unhappy with how they look. These are not the right reasons to be exercising and it could also show that social media fitness materials are the things which are promoting male body dissatisfaction. Rather than motivating individual's in a positive way, males feel poorly about their appearance and are "motivated" to exercise.

Benefits of Research**:** Male body dissatisfaction has become a fairly new recent area of interest in the scientific and social world. Participation in this study will contribute to the research of male body dissatisfaction and possible outcomes associated with it, like exercise behavior. Identifying the relationship between social media usage and exercise behavior could be the precursor to future research which would identify a causal relationship between the two variables. Meaning the way that social media fitness advertisements now are designed to motivate males by making them feel bad about their body, which increases exercise behavior. If that were to be the case, interventions of exercise and healthy habits would need to be restructured and modified to endorse healthy lifestyle choices for more positive reasons.

What if I want to know more?**:** If you would like to know more about the relationship between social networking sites and exercise, one source that could be beneficial is Vaterlaus, J. M., Patten, E. V., Roche, C., & Young, J. A. (2015). #Gettinghealthy: The perceived influence of social media on young adult health behaviors. Computers in Human Behavior, 45, 157. Retrieved from http://www.sciencedirect.com/science/article/pii/S0747563214007286

If you are interested in viewing the results of the study, or have any unanswered questions at the end of your participation please do not hesitate to contact the primary researcher, Alex Ciorra at ciorraa@allegheny.edu or Professor Josh Searle-White, jsearle@allegheny.edu. If at all during the study you felt triggered or upset by any of the statements please contact the Allegheny College counseling center for help **(814) 332-4368** located in Reis Hall room 304.

Thanks again for your participation.