

Effects of Exercise on Levels of Social Physique Anxiety

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Abstract

Psychologists have proposed that some people experience higher levels of Social Physique Anxiety than others. This experiment explored the connection between the amount of exercise a person gets per week and their levels of Social Physique Anxiety. Participants were asked to complete demographics such as gender, year in school, number of times they exercise per week, and how long they exercise. The participants were then asked to complete the Social Physique Anxiety Scale (Leary, 1989). The hypothesis was that those who exercise more frequently will have lower levels of Social Physique Anxiety than their non-exercising counterparts.

Keywords: social physique anxiety, exercise

Some people tend to think that anxiety and stress only affect a certain age group but there are statistics that indicate that it can affect anyone:

- Anxiety disorders are the most common mental illness in the U.S., affecting 40 million adults in the United States age 18 and older (18% of U.S. population) (Anxiety and Depression Association of America, 2010; Anxiety Centre, 2012).
- Anxiety disorders affect one in eight children (Anxiety and Depression Association of America, 2010).
- Anxiety is as common among older adults as among the young. Generalized anxiety disorder (GAD) is the most common anxiety disorder among older adults (Anxiety and Depression Association of America, 2010).
- Anxiety disorders cost the U.S. more than \$42 billion a year, almost one-third of the country's \$148 billion total mental health bill (Anxiety and Depression Association of America, 2010).

Anxiety is a major part of any part of life and can affect the way that some people respond in certain situations (Kuiper, Aiken, and Pound, 2014). In order to better comprehend how much anxiety does affect people throughout the world social scientists have been working to (1) better define the different types of anxieties that people can have and (2) the factors that go into a person's development of these specific disorders.

Body Image Anxiety

Body image anxiety refers to the general nervousness that a person feels about their own appearance (Sabiston & Chandler, 2009). In our world today, there are many people in both genders that are not pleased with their own image, but women have been shown to have

more anxieties than men (Chu, Bashman, & Woodard, 2008; Hagar & Stevenson, 2009; Williams & Cash, 2001; Woodman & Steer, 2011). However, the studies indicated that men do have anxieties about their bodies, although their scores were not as high as the women's, and that they worry about factors such as masculinity (Chu, Bashman, & Woodard, 2008; Haase & Prapavessis, 1998; Martin, Kliber, Kulinna & Fahlman, 2006).

In our society today many people are trying to look perfect which is an unrealistic goal with some hefty consequences. Many people try dieting and if that does not work then they go to more extreme measures that are not healthy; such as improper eating habits. Due to these feelings of unease about their own body some people have developed eating disorders to try and reach that "perfect" look. Unfortunately, there are statistics to prove that eating disorders are at a higher rate than ever before:

- Up to 24 million people of all ages and genders suffer from an eating disorder (anorexia, bulimia and binge eating disorder) in the U.S. (National Association of Anorexia Nervosa and Associated Disorders, 2015).
- Eating disorders have the highest mortality rate of any mental illness (National Association of Anorexia Nervosa and Associated Disorders, 2015).

The most difficult part about understanding body image anxiety is trying to understand what causes these issues. Many people in the world today try and blame the media for over-portraying men and women who are in amazing shape which then sets unrealistic standards for everyone else (Michaels, Parent, & Moradi, 2013; Sabiston & Chandler, 2009). However, media portrayal of in shape men and women may not have as big of an impact as some would like to assume (Michaels, Parent, & Moradi, 2013; Sabiston & Chandler, 2009). In a study by Sabiston

and associates, the researchers tried to determine whether showing women pictures of in shape models would increase their anxiety levels. The results indicated that even after looking at the pictures the women's anxiety levels about their bodies did not change from what they were previously (Sabiston & Chandler, 2009). Unfortunately, people with body image anxieties have different reasons for their feelings which can make it very difficult to understand and treat this concept.

Social Physique Anxiety

There are many environmental factors that can cause a college student to be stressed including gender, age, ethnicity, academic major (Baloglu, 2002). However, this study focused on social physique anxiety levels in college students. Social Physique Anxiety is defined as a feeling that individuals experience in response to a perception that others will negatively evaluate their physique (Hagar, Stevenson, Chatzisarantis, Gasper, Ferreira, & Ravé, 2014). Many social scientists have hypothesized that negative body image and social physique anxiety are positively correlated (Chu, Bushman, & Woodard, 2008; Melbye, Teenbaum, & Eklund, 2008). This statement means that the higher a person's negativity is about their own body, the higher their levels of social physique anxiety. Tok, Tatar, and Morali (2010) conducted a study to try and measured the relationship between the five factor personality model and a person's social physique anxiety. Their study showed that there are positive correlations between self-esteem and neuroticism as well as extraversion and body image satisfaction (Tok, Tatar, & Morali, 2010). Furthermore, the study stated that the key factor in a man's physique anxiety score is neuroticism whereas emotional reactivity is the main factor for females (Tok, Tatar, & Morali, 2010).

Just as with body image anxiety, the fact that women are more stressed about their bodies translates to social physique anxiety as well. According to Davison and McCabe (2005), women were more likely to compare themselves to others and had more concerns about others evaluating them than their male counterparts (Davison and McCabe, 2005). Due to this information, it is possible that some women may avoid the gym to keep from being judged. This statement was introduced in a study done by Atalay and Gencöz (2008), in which they aimed to examine the correlation between exercising, body image satisfaction, and social physique anxiety levels in college aged women (Atalay and Gencöz, 2008). The results of this study showed that women who were dissatisfied with their body image and did not exercise regularly had higher social physique anxiety. The study goes on to state that women who did have higher physique anxiety did avoid the gym because it is a place where their body is at open gaze for the public (Atalay and Gencöz, 2008).

Preventions

Throughout the research it has been shown that many people fall victim to social physique anxiety with some having higher levels than others (Williams & Cash, 2001). However, the one factor that most social scientists agree on is that a good prevention method of Social Physique Anxiety is exercise. Statistics showed that, for the most part, the more someone exercises the lower their levels of social physique anxiety. According to a study by Koyuncu, Tok, Canpolat, and Catikkas college female athletes were more satisfied with their bodies and had lower levels of social physique anxiety and higher levels of self-esteem (Koyuncu, Tok, Canpolat, & Catikkas, 2010). Their study was composed of 290 female exercisers and non-exercisers ranging from 18-60 years old. The method of this study was to

have the participants answers questions to a couple of surveys including the social physique anxiety scale, the body image satisfaction questionnaire, and the Coopersmith self-esteem scale.

A study by Williams and Cash (2001) focused on body image and how the views of men and women can change after a six week circuit training course. The study was made up of 27 women and 12 men with a mean age of 21.7. The results showed that levels of physique anxiety and negative body image decreased in both men and women after the six week circuit course (Williams & Cash, 2001). Weight trainers had a significantly improved evaluation of their appearance, greater body satisfaction, reduced social physique anxiety, and enhanced physical self-efficacy (Williams & Cash, 2001). In another study, Scott (2005) tried to determine if exercise alone could lower people's levels of S.P.A. or if it would be more beneficial if they had a general education about fitness plus exercising. The study was made up of 213 participants of both genders who were to participate in physical activity classes and handouts for six weeks (Scott, 2005). The results showed that there was a significant decrease in levels of S.P.A. starting at week three if the people participated in both physical activity and educational handouts (Scott, 2005). This research proves that, even though exercise alone may not completely lower someone's level of S.P.A. it can play a major factor if paired with the proper nutritional education.

Research Hypothesis

Every day people are being judged on their appearance whether they know it or not. Some people are trying to improve their appearance because they are nervous about what

others are thinking. This study will attempt to explore the role that exercise can have on a person's social physique anxiety level.

Undergraduate research participants, who vary in their level of SPA (Social Physique Anxiety) will be asked to complete the Social Physique Anxiety Scale (Leary, 1989). Also, the research will take into account the number of times the participants exercise in a week and for how long they choose to workout. It is predicted that who work out more frequently will have lower SPA scores compared to their non-exercising counterparts. The predictions will be tested using a Pearson R correlation test with the amount of exercise being the independent variable and the level of social physique anxiety being the dependent variable.

Method

Participants

One hundred students from McKendree University participated in the study; they did not receive any class credit or reward of any kind for their participation. Data from 15 participants were excluded from the analysis due to either not handing back the survey or missing information such as: gender, times exercising, or answers to the judgment questions. Therefore 85 participant's data are considered in the data analysis. Just above one half of the sample was women and just less than one half was male. Eleven percent were first-year, 38% were sophomores, 27% were juniors, 22% were seniors, and 2% were super seniors.

Materials

The Leary social physique anxiety was used for this research and had questions surrounding a person's self-esteem and their perceptions. This study was made up of five questions revolving around positive body image and seven questions about negative body

image. The questions were all based on the person's perception of how others are judging their physique.

Social Physique Anxiety Scale

The first social physique anxiety scale was by a series of studies by Leary and associates in 1989. In the initial phase of scale development, Leary and associates generated a pool of 30 self-report items that dealt with physique anxiety. Each item referred to self-reported anxiety (tension, nervousness) or its opposite (relaxation, comfort) arising as a result of others' evaluations of one's body (Hart, Leary, & Rajeski, 1989). The items were then assessed by experts based on their evaluation of item clarity, content validity, and appropriateness for both sexes, the pool was narrowed to 22 items (Hart, Leary, & Rajeski, 1989)). A sample of 195 subjects, 97 females and 98 males, rated the degree to which each of the statements was true of them on a five point scale. After the research was completed the scale was narrowed down to 12 items due to question redundancy. Overall, the alpha coefficient was .90, indicating high inter-item reliability. Eight-week test-retest reliability was .82 (Hart, Leary, & Rajeski, 1989).

Procedure

Participants were asked if they would like to take a brief survey. They were then handed an informed consent form and were asked to read over it. The experimenter then explained that if they wished to be involved in the survey they needed to initial and date the form and return the bottom portion to the researcher. The participants were asked to complete the twelve sample questionnaire either before classes or during their free time in the university's dining hall. The researcher explained to them that the survey was a requirement for PSY 496 and that they did not have to participate if they did not want to. Participants were

informed that they could withdraw from the study at any time, if they became uncomfortable. Participants were informed verbally and in written instruction that their responses were anonymous. Completion of the survey took no longer than 10 minutes for the participants to answer the questions given. After completion of the surveys, the experimenter debriefed the participants on what the research study was about and answered any questions or concerns that they might have.

Results

To test the hypothesis that men and women who exercise more will have lower levels of social physique anxiety than their non-exercising counterparts a Pearson R correlation was done. However, two tests were done to determine the correlation between the number of hours and the total score and the number of times and total score. Significant levels are indicated by a p value measuring less than .05 ($p < .05$). In the correlation test with the number of hours as the dependent variable, there was a significant negative correlation between the factors, $F = -.279$, $p = .005$. In the correlation with the number of times being the dependent variable there was not a significant negative correlation between the variables, $F = -.172$, $p = .057$. See table 1 and 2 below for complete information.

Correlations

Table 1

		NcogTotal	Hours
NcogTotal	Pearson Correlation	1	-.279**
	Sig. (1-tailed)		.005
	N	85	85
Hours	Pearson Correlation	-.279**	1
	Sig. (1-tailed)	.005	
	N	85	85

Table 2

** . Correlation is significant at the 0.01 level (1-tailed).

		Times	NcogTotal
Times	Pearson Correlation	1	-.172
	Sig. (1-tailed)		.057
	N	85	85
NcogTotal	Pearson Correlation	-.172	1
	Sig. (1-tailed)	.057	
	N	85	85

Discussion

The original hypothesis stated: men and women who exercise regularly will have lower levels of social physique anxiety than their non-exercising counterparts. Since a significant negative correlation resulted, it is clear that the original hypothesis was supported by the data. However, even though the number of hours mattered but the number of times did not, it is safe to say that the data continues to support the original hypothesis.

Limitations

If this study were to be repeated in the future there are a few aspects that could be changed to improve the quality of the results. The first factor that could help would be to use the total hours per week that the person exercises instead of just in one time. The next change

that could be made would be adding a second survey surrounding self-worth. If a researcher would test the levels of a person's self-worth than they could see the possible reasons behind why the people may have anxiety.

Implications

In the future, this research project can help in assessing how a person feels about their own appearance. If this study were to be redone one factor that could help would be to have more than 85 participants. If the number of participants was higher than the data could be shown to be more accurate than they are now. However, with the data that is presented, this research could help identify what people perceive as positive and negative bodily qualities. It seems as though every person has a different perception of what may or may not look good. This work can become the starting block of determining what actions result in other's having high or low self-esteem and anxiety. In another study taken from this one, a researcher could determine which specific qualities cause an individual to feel more anxious about their bodies. Concepts of what looks good or does not look good are always changing, but expanding on past studies, like this one, is how people can better evaluate the overall progression on these types of topics.

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Appendix

Gender: Male Female
Year in School: First Year Sophomore Junior Senior Senior +
How many times do you exercise per week: 0 1 2 3 4 5+
How long do you exercise for: _____

- 1 = Not at all characteristic of me
- 2 = Slightly characteristic of me
- 3 = Moderately characteristic of me
- 4 = Very characteristic of me
- 5 = Extremely characteristic of me

_____ 1. I am comfortable with the appearance of my physique or figure.

_____ 2. I would never worry about wearing clothes that might make me look too thin or overweight.

_____ 3. I wish I wasn't so up-tight about my physique or figure.

_____ 4. There are times when I am bothered by thoughts that other people are evaluating my

weight or muscular development negatively.

_____ 5. When I look in the mirror I feel good about my physique or figure.

_____ 6. Unattractive features of my physique or figure make me nervous in certain social settings.

_____ 7. In the presence of others, I feel apprehensive about my physique or figure.

_____ 8. I am comfortable with how fit my body appears to others.

_____ 9. It would make me uncomfortable to know others were evaluating my physique or figure.

_____ 10. When it comes to displaying my physique or figure to others, I am a shy person.

_____ 11. I usually feel relaxed when it's obvious that others are looking at my physique or figure.

_____ 12. When in a bathing suit, I often feel nervous about how well proportioned my body is.