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# An Examination of the Influence of Social Physique Anxiety on Effort and Exercise Participation in College Students

Trellony M. Irwin

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The University of Southern Mississippi

An Examination of the Influence of Social Physique Anxiety on Effort and Exercise  
Participation in College Students

by

Trellony Irwin

A Thesis  
Submitted to the Honors College of  
The University of Southern Mississippi  
in Partial Fulfillment  
of the Requirement for the Degree of  
Bachelor of Science  
in the Department of Kinesiology

December 2017



Approved by

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## Abstract

The purpose of this study was to investigate whether an individual's perception of others influenced exercise participation and effort in women and men participants involved in exercise classes in a campus recreation facility. The study consists of a survey that utilizes the Social Physique Anxiety Scale, the Ratings of Perceived Exertion (RPE) Scale, and demographic information. Results revealed that participants' social physique anxiety accounted for roughly 30% of the variance in self-reported physical activity. However, when it came to participant effort during the group exercise classes, there was only roughly 2% variance between social physique anxiety and RPE. Further, the T-test comparing these variables was not significant. Conclusions and future directions are discussed.

Keywords: Social Physique Anxiety, Rate of Perceived Exertion, exercise, group, participation, variance, correlation

## Dedication

I would like to dedicate this study to my family and loved ones. Thank you all for all your support and encouragement throughout this entire process!

Love,

Trellony

## Acknowledgements

I would like to thank my Honors advisor, Mrs. Paula Mathis, for her relentless motivation during the completion of this research project and, also, Dr. Melissa Thompson, my thesis advisor, for her diligent work and assistance.

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## List of Abbreviations

PA	Physical Activity
SPAS	Social Physique Anxiety Scale
RPE	Rate of Perceived Exertion
USM	University of Southern Mississippi
CDC	Center for Disease Control
WHO	World Health Organization

## **Chapter One: Introduction**

Physical inactivity plays an important part in the overall health of an individual. According to the Center for Disease Control and Prevention (CDC) (2015), engaging in regular exercise can prevent or decrease the risk of obesity symptoms. Physical inactivity can result in the opposite effect. It may lead to increased chances of hypertension, osteoporosis, colon and breast cancer, and gallstone formation. Merely 1 out of every 5 adults in the United States gets the recommended amount of exercise and only 3 in 10 high school students get at least 60 minutes of exercise daily (CDC, 2015). In fact, according to Farrell, Hollingsworth, Propper, et. al (2014), the World Health Organization (WHO) concluded that physical inactivity accounts for approximately 1.9 million deaths per year globally, around 22 percent of instances of coronary heart disease, and more than 10 percent of reported colon and breast cancer and diabetes occurrences. Farrell, et. al (2014) also declared that the main culprit behind unhealthy behavior is physical inactivity, because the behavior can be modified.

Despite the evolution of medical technology and improved methods of healing, physical inactivity among the population remains a growing concern. Specialists, doctors, and even trainers encounter the tedious task of trying to get individuals to participate in exercise. Fletcher, Balady, Blair, et.al. (1996) stated that, when it came to coronary artery disease, physical inactivity was shown to be a primary risk factor. Ever since the importance of exercise in preventing diseases like cardiac disease, hypertension, etc. was established and announced to the public, it has been ignored by much of the population. The issue has thus become one of critical concern. Not all of the population has taken steps in the right direction. The value of daily exercise is one that is very well established. People

are either not exercising enough, or they are not exercising at all. It is important to consider what factors prevent individuals from participating in exercise. Most individuals who are asked why they do not participate in exercise give an excuse. The most common excuses are “I am too tired,” “I do not feel well,” “I am too busy,” “I do not have time because I have to take care of my children,” “the gym is too expensive,” “exercise is boring,” and even “I have no motivation.”

Motivation proves to be a key factor. Most people who exercise have the motivation to do so and to sustain their daily or weekly routines, even if they have children or busy schedules. Motivation has been defined by Oh and Yi (2017) as, “willingness to do something.” Oh and Yi also believed that considering an individual’s motivation to engage in exercise could provide necessary insight into better understanding their choices, decisions, and behaviors, and even aid in pinpointing the direction, consistency, and magnitude of the individual’s behavior. Kilpatric, Hebert, and Bartholomew (2005) stated that one of the most important topics, when considering research on physical activity among the population, is developing an understanding of motivation. An experiment conducted by Ryan, Frederick, Lipes, et.al (1997) concluded that when it came to intrinsic and extrinsic motives for involvement in sports and exercise, motivation often played a large role.

Motivation is composed of two distinctions or categories, intrinsic and extrinsic motivators. Intrinsic motivators are described by Ryan, Frederick, Lipes, et al (1997) as, “experiences of competence, and interest/ enjoyment”; extrinsic motivators are “those that are performed to obtain awards and outcomes that are separate from the behavior itself or body related motives (desire to improve appearance or fitness)”. Engagement in exercise

depends on the individual and the individual's motivations. Though previous research by Buckworth, Lee, Regan, et.al (2007) indicated that intrinsic motivation proved to contribute to greater motivation and sustainment of exercise, the research somewhat ignored the role that extrinsic motivators might also account for in sustaining exercise.

Intrinsic and extrinsic motivation vary between individuals and depend on either enjoyment (for intrinsic motivation) or outward appearance (for extrinsic motivation). Logic implies that the involvement of extrinsic motivation depends on the individual's image of him/herself (self-image), which is intrinsic. Given the physical nature of exercise—exercise involves utilizing the body in ways that will improve its build and function with the added benefit of making the body more pleasing to the eye—awareness of an individual's appearance to him/herself and how they feel their body appears to others, may be the next step in understanding the reasons behind nonparticipation among the population.

Exercise increases self-esteem in individuals who suffer from feelings of worthlessness. It is necessary to evaluate self-esteem as it relates to self-image and how one perceives his or her appearance to be judged by others. People have different concepts of their bodies. Part of how individuals see and present themselves has to do with how they feel about how they look to themselves and appear to others. This concept of self is most often outwardly portrayed. Anxiety may play a huge role when considering self-image and body awareness. When individuals become conscious and aware of the perceptions that others may have towards them, this can trigger feelings of anxiety that can influence the individual's performance and behavior within a social setting. This could manifest numerous emotions, most often feelings of inferiority, which could negatively impact the

individual's self-esteem (Rothberger, et. al 2015). The anxiety that stems from the fear and concern that others are judging or evaluating your body and or physique is termed social physique anxiety (Cox, et.al, 2011) and is assessed using the Social Physique Anxiety Scale (SPAS) developed by Hart, Leary, and Rejeski (1989).

Individuals who are extrinsically motivated tend to be more aware of their bodies and more concerned about outward appearance. This concern for outward appearance relates back to self-image, which is intrinsic. Self-image is a component of how one feels about him or herself. This includes how he or she feels that he/she may look on the outside, like weight, size, and shape, which becomes a part of his or her self-awareness. Along with that self-awareness is the belief and/or fear that others, besides oneself, are judging and evaluating their appearance or physique. This may constitute increased anxiety and play a huge part when considering lack of motivation and participation in exercise and physical activity within a social setting. Increased social anxiety could negatively impact readiness to participate and engage in social environments and in any physical activity (PA) or exercise, for fear that one's body is being unfavorably assessed by others. My research questions therefore become 1) Does social physique anxiety influence physical activity and exercise participation among college students? and 2) Is social physique anxiety related to effort during group exercise classes?

## **Chapter Two: Literature Review**

Previous studies have investigated the importance of exercise for human health status. Exercise is expressed by most to be a weekly or daily routine. However, routinely, not all find themselves exercising that often. Buckworth, Lee, Regan, et.al (2007)

conducted a two-part design experiment (cross-sectional and longitudinal) to assess measurement accuracy and predictive validity for methods of evaluating intrinsic and extrinsic motivation as they relate to exercise and to assess, as a function in a range of stages, the readiness to exercise through variations in motivation. The first experiment involved completion of multiple instruments that measured stages of exercise and motivation by 184 college students. All extrinsic and intrinsic motivations attained were processed using data observed to create multiple possible functional causes and to determine which were the most significant. These were then placed into subscales (a scale within a scale). The second portion consisted of 220 students and provided validity for the first experiment by assessing changes, occurring from the beginning of the academic term to the end, within the motivational subscale. The experiment concluded that, overall, when it came to extrinsic and intrinsic motivation, both variables could be broken down into smaller factors of great significance, and that all could be separately linked to reasons for partaking in and sustaining exercise and continued motivation.

Results of Buckworth, et al. (2007) confirmed the experiment conducted by Lauderdale, et al. (2015), who investigated the relationships between college students' exercise motivation and weekly physical activity (PA) participation. The experiment explored the differences of intrinsic and extrinsic factors between the students. The researchers hypothesized that men would have greater intrinsic motivation and be more active than women, who were hypothesized to be less active and less intrinsically motivated. The second purpose of the experiment was to expand knowledge of how active college students' motivation may differ from others. The overall method consisted of a survey research design, unlike the cross section or longitudinal design conducted by

Buckworth, et al. (2007). It sampled a total of 96 participants, 33 males and 63 females, ages 18-24, all from the same university. The study concluded that when it came to men and women college students, men were more likely to be intrinsically motivated and women were more likely to be extrinsically motivated. Overall, intrinsic motivation surpassed extrinsic motivation.

The two experiments measured and evaluated the components of extrinsic and intrinsic motivation when it came to exercise, which was important when examining what motivates one to engage in exercise. Knowing that extrinsic motivation and intrinsic motivation play this role, the question remained, “what causes these differences in extrinsic and intrinsic motivation to arise?” It is imperative to consider how intrinsic and extrinsic motivators play a role in self-image and body image and how they both vary between individuals.

Frederick, Christina, and Morrison (1996) introduced the idea of social physique anxiety and its relationship to motivation. The purpose of this study was to take the subjects’ attitudes towards exercise, adherence behaviors ( a self-initiated act of complying and committing to a specific task), participation motivation, personality variables, and emotional attitudes towards exercise and compare it to social physique anxiety. The experiment consisted of 326 subjects, who were participants of the University Fitness Center. The instruments used included a “Behavioral Regulation in Exercise” questionnaire that measured three forms of extrinsic motivation (external, introjected, and identified regulation) and a type of intrinsic motivation known as intrinsic regulation. External regulation involved behavior performed for external reward, like obtaining a medal or a trophy. Introjected regulation consist of behavior completed in order to preserve



self-esteem and diffuse the feeling of guilt. An example of introjected regulation would be continuing to perform a task so others consistently believe that you are great at it. Identified regulation included behavior accepted consciously as being important in attaining beneficial personal results. Identified regulation would be eating healthy because it is good for you. Lastly, intrinsic regulation involved participation in a specific behavior because of the satisfaction associated in doing so. Researchers included four items from the initial item pool of one of the authors cited, Mullan et.al.. The responses, after being scored on a 5-point Likert scale, were then recorded. The college students were asked to rate on an 8-point scale, how much, during the week, they engaged in exercise. Results showed that women had higher scores for the Social Physique Anxiety Scale than men. Those that received higher scores on the scale showed more extrinsic motivation for exercise than those that scored lower. Participants with higher scores were more aware of their bodies publicly.

A non-similar study that looked at an extrinsic factor that affects exercise was an experiment by Carroll, Kate, Alexander, and Spencer (2007), which assessed clothing's impact on children in exercise programs. This experiment aimed to consider issues concerning clothing, to find the kind of clothing that would provide better comfort, usefulness, and appearance for the children. The second purpose of this experiment was to establish how important a role clothing played for the children in these programs. Lastly, the experiment sought to determine the children's attitudes towards certain aspects of clothing, which included both the fit and attractiveness, as reasons of encouragement to maintain engagement in the exercise programs. The study assessed the role of clothing in the exercise programs for these children, whom a large percent were reported to be wearing

their parent's clothing, because their parents could not find suitable exercise clothing for them.

The methodology of this experiment consisted of a group of children and their parents who had participated in a weight management program. Each was given a survey that consisted of questions on items of clothing that were worn during the program, including such factors as fit and comfort. The results showed that having clothing that was better fitted and more comfortable for obese and overweight children would generate, from a psychological and social perspective, motivation for the children to engage more in the program. Researchers concluded that the findings could have a big influence on motivating overweight and obese children to continue and maintain exercise and lose weight.

A study conducted by Davis and Cowles (1991) aimed to compare variables related to body image, weight, diet concerns, and exercise participation. The experiment sampled 112 women and 88 men, all from a wide range of age. Results provided from this experiment showed that both women and men were equally unsatisfied with their existing body weight. A vast number of women wanted to lose weight, while the men were evenly divided between wanting to lose and to gain weight. Women, overall, were the most dissatisfied with their bodies and placed more emphasis on appearance as impacting their feelings of well-being. There was no difference in sex when it came to amount of exercise. Most interesting was that, for men, greater body dissatisfaction corresponded to an increased amount of exercise participation and body focus. The conclusion of the experiment stated that results were “context of social influences” like health promotion and sex, and that these factors could have affected the present-day attitudes of individuals to physical images and physical appeals between sexes.

Smith, Handley, and Eldredge (1998) conducted a similar experiment. The experiment was an expansion of a previous experiment done by Cash, Novy, and Grant in 1994. In this experiment by Smith, et.al. (1998), 78 male and 100 female undergraduates, ages 18-25 and from different majors, completed demographic and frequency of exercise surveys, two body-assessment inventories, and the “Reasons for Exercise Inventory” by Silherstein, Striegel-Moore, Timko, and Rodin. The results of the study by Smith et.al. (1998) contradicted those of Cash et.al. (1994). Reasons for frequency of exercise in the women were health and fitness related. Women’s dissatisfaction with certain bodily aspects were not notably related to the reasons for exercise. One result did concur with the previous Cash et.al study: that the women faced increased situational body dissatisfaction and were more likely to exercise to control their weight for appearance-based reasons. Results did not provide a significant reason behind exercise involvement among participants, but it did indicate similar dissatisfaction of body aspects for men and women. Overall, when compared to the men, the women had higher body dissatisfaction and reported exercising more often for appearance-based reasons.

In conclusion, each of the previous experiments and studies observed certain factors that ultimately tied one to another. In the previous studies, motivation, both extrinsic and intrinsic, were observed. Body image as it related to one or both types of motivation was also studied and compared between male and female college students. Factors that play into body image (self-image), like that of social physique anxiety, its relationship to motivation, and how body dissatisfaction could impact reasons for exercise and exercise participation were also observed. Even the study done by Carroll, et, al (2007), explored exercise involvement, clothing, and comfort, which took a step further in understanding

how ordinary luxuries, like comfort in clothing, could influence involvement in everyday physical activity. The study could, also, provide aide to future studies assessing clothing's impact on social physique anxiety associated with motivation within exercise.

Each of these experiments and studies looked at numerous variables and conducted surveys obtaining information on those variables. Though each observed very important key factors pertaining to exercise and motivation, Davis and Cowles (1991) and Smith, Handley, and Eldredge (1998) overlooked the role of body image and its relationship with participation in regular exercise. The study by Buckworth, Lee, Regan, et.al (2007) concluded that when it came to motivation, the internal factors or reasons for exercise outweighed the external motivation factors for exercise. Yet, gaps in understanding how self-image (body image) related to social physique anxiety could impact individual participation among college students, and how participation among those students, who are susceptible to peer judgment within group exercise, may be affected, has yet to be established. Therefore, the first purpose of this study is to evaluate social physique anxiety as it relates to participation in physical activity and, secondly, to determine if social physique anxiety levels influenced effort in group exercise among college students.

### **Chapter Three: Methodology**

**Thesis:** “Does Social Physique Anxiety influence physical activity and effort during group exercise among college students?”

#### **The Sample**

Approximately 41 students participated in this study, male (n=11) and female (n=30). The population sample included college students on The University of Southern

Mississippi's campus. The study consisted of students from several departments and majors, all ages 18-25. All participated in group exercise classes located in the campus exercise facility, the Payne Center. A supervisors from the Payne Center was contacted for permission to involved three group exercise classes (Yoga, Fitness walking, and Zumba), to partake in the questionnaire for this study.

**Variables:**

This study measured social physique anxiety using the Social Physique Anxiety Scale (SPAS) and observed Ratings of Perceived Exertion (RPE). Weekly PA and exercise involvement were collected as part of the demographic data obtained. Demographic information such as age, race, college classification, and marital status, was also acquired during this survey.

This study is designed to understand the relationship between body image and self-image as they relate to SPAS (Social Physique Anxiety Scale) and the readiness to participate in group exercise among peers. In defining these variables, exercise was considered as physical workouts. Self-image included self-concept and how each person viewed him/herself. The term "body image" involved the idea each individual held about him or herself in relation to the physical and outward appearances of his or her own body and body parts or physical characteristics. Social Physique Anxiety was defined as the evaluation of those physical assets by people outside of oneself, like peers, that result in extreme apprehension or panic and uncertainty for the individual. Lastly, exercise participation was considered as how many times per week the individual self-reported working out.

**Instrument and Procedure:**

This questionnaire measured each variable, and included the assessment of demographical information. The instruments used consisted of a modified version of the Social Physique Anxiety Scale (Frederick and Morris, 1996), to measure social anxiety among participants, and the Rate of Perceived Exertion Scale. Approval to conduct surveys with three of the group exercise classes (Zumba, Fitness Walking, and Yoga) was granted. After permission, consent forms were generated. The supervisor, also the instructor for the three group exercise classes, was given the surveys and consent forms, and she presented and briefed all participating and eligible students before they signed. Each student completed a survey, which consisted of 9 scaled SPAS questions (ranging from 1= Not at all to 5=Extremely), an RPE scale, weekly PA questions, and demographic information. Time to complete was less than 10 minutes. The SPAS questions utilized a Likert Scale of 1 to 5 as the tool to measure responses. After contact with the instructor, following the completion of all surveys, they were collected, filed, and locked away for processing and confidentiality.

**Data Analysis:**

All answers from the questions in the survey were entered and organized into an Excel Spreadsheet for data analysis. Questions 5 and 8 of the modified SPAS were reversed scored, which meant that these questions would be scored the opposite of what they would have been scored in the non-reversed scored questions. If the participant answered with 1 it would be scored as a 5 instead. A score of 2 would correlate to a 4 and a score of 3 would remain as 3. Reverse scoring helped to eliminate discrepancies between the positively worded questions and the negatively worded questions. This is because the positively

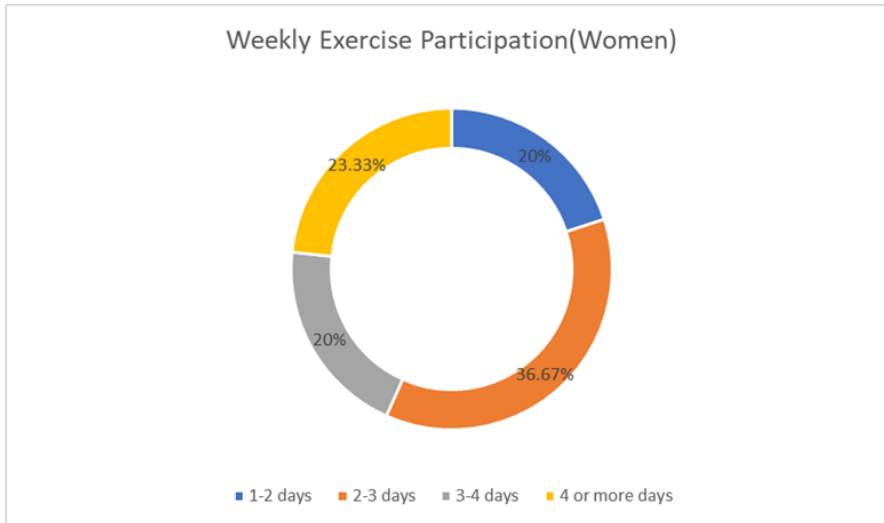
worded questions provide advantages and could lead to higher scores for participants that possessed higher self-esteem, while answering a negatively worded question with either 1 or 5 could predict very low self-esteem. Therefore, the negatively worded questions are reversed scored. The SPAS answers for each question were totaled and used to determine each participant's degree of social physique anxiety. These totals were later used to determine correlation between SPAS and RPE and SPAS and weekly exercise participation. A t-test was also done to determine significance. Results were used to determine if SPAS influenced RPE and if SPAS results among participants influenced readiness to engage in PA and weekly exercise participation.

## **Chapter Four: RESULTS**

Final results indicated a moderate to strong negative correlation between Social Physique Anxiety and self-reported physical activity ( $r = -.549$ ). These results suggested that roughly 30% of the variance in self-reported physical activity could be attributed to Social Physique Anxiety. The correlation between SPA and RPE was  $-.145$ . Thus, there was only 2% of variance of exertion accounted for by SPAS. A t-test further concluded that the relationship was not significant. When comparing SPAS scores among all 41 participants (Female=30, Male=11), the women reported a higher average of social anxiety (average = 29.033) compared to male counterparts (average = 17.91). Six of 30 female participants (20%) reported weekly exercise participation of 1-2 days per week; 11 out of 30 (36.67%) reported 2-3 days per week; 6 of 30 (20%) gave 3-4 days per week; and 7 of the 30 (23.33%) engaged in PA 4 or more days per week. Among the men, 1 of 11 (3.33%) participated in 1-2 days of PA per week; 3 out of 11 (27.27%) engaged in exercise 2-3 days

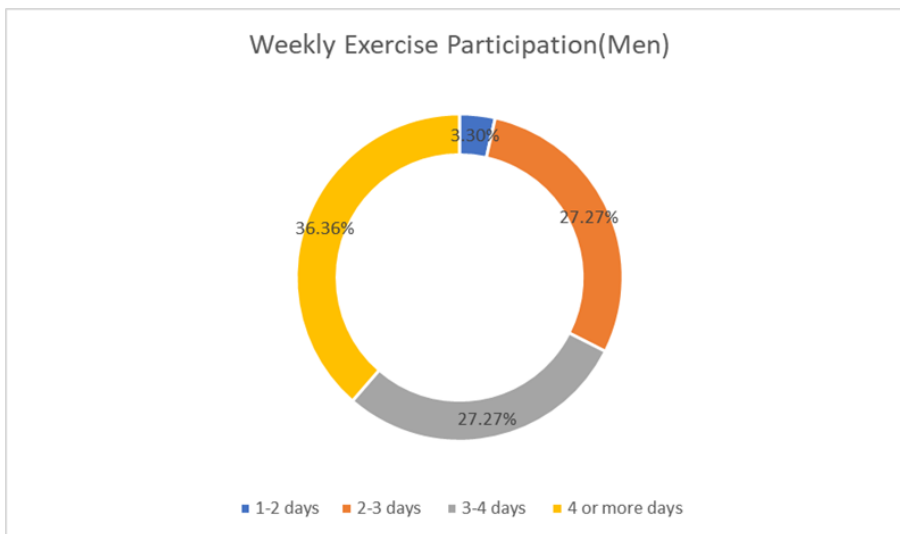
a week; 3 of 11 (27.27%) participated 3-4 days a week; and the last 4 of 11 (36.36%) participated or engaged in PA 4 or more days per week.

**Chart 1:** Weekly Exercise Participation Among Female Participants



\*This graph represents the percentage of female participants and the number of days that they are engaged in exercise on a weekly basis.

**Chart 2:** Weekly Exercise Participation Among Male Participants



\*This chart presents the number of days, among male participants, that exercise and PA are engaged in on a weekly basis.



## Chapter Five: DISCUSSION

In the present study, the influence of social physique anxiety on exercise participation and RPE were evaluated. Results from this study suggest that when it came to social physique anxiety and RPE, there was no relationship between the variables or how they related to exercise participation and adherence among participants. Surprisingly, when compared to Focht's (2011) study, which suggested that while evaluating women who suffered from high levels of social physique anxiety, alterations in feeling states were experienced by the women and that those feeling states occurred while engaging in exercise. Focht concluded that these feeling states were in fact affected by the interplay that arose from the interaction between the intensity of the physical activity, the fear of socially induced sense of peer judgment, and baseline effective responses.

Though Focht's experiment suggested that a relationship among social physique anxiety and exercise could exist, data concluded that there was no correlation between the two variables. This is because social physique anxiety revolved around an individual's belief that others were evaluating his or her physical stature, and that it did not include the evaluation of how intense one felt he or she had performed. However, there are aspects of this concept that would suggest that there could be a significant relationship between the two.

After exercise participation, data and results were assessed. Overall, according to the present study, the men reported engaging in more physical activity and exercise on a weekly basis than women. A previous study conducted by Hagger et al. (2011) concluded that physical activity behavior was not affected by social physique anxiety, but that there

was a very slight connection between both social physique anxiety and behavior associated with physical activity present. This connection was believed to be related to the overwhelming effect of an individual's idea of self-concept. He also believed that this self-concept ultimately outweighed the concepts of physical appearance, when concerning an individual's engagement in PA and exercise.

When comparing total scores for levels of social physique anxiety to that of weekly exercise participation, there appeared to be, on average, an unforeseen correlation present. This was due to the fact that the majority of the individuals with high levels of social physique anxiety also reported fewer days per week of physical activity. Among men and women, women reported the highest levels of social physique anxiety, while the men, on average, had the lowest levels of social physique anxiety and reported more average days a week engaging in physical activity and exercise. This could be due to external factors present among subjects and partly because women are more self-aware and apprehensive about their bodies and its appearance to others. Further investigation and more efficient methods of measuring, evaluating, and determining this correlation are required for future studies.

## **Chapter Six: CONCLUSION**

In conclusion, results indicated that there was no relationship between the participant's SPAS score and RPE. T-test results confirmed that there was no significance between the two variables, and a test of correlation concluded that variance among them was only -1.45 (about 2%). When comparing SPAS scores between men and women, women were shown to experience, on average, a higher degree of social physique anxiety. Men, based on percentage of scores from weekly exercise participation, revealed to engage

in more exercise and PA participation than women and often reported lower RPE scores than women. When evaluating PA between men and women, men were shown to participate more often on a weekly basis than women. Regarding future research, steps should be taken to improve measurements of RPE, SPAS, and the amount of daily or weekly exercise participation among subjects. Furthermore, to, also, insure more efficient, substantial, and accurate data, and to provide a more effective measurement for these variables as they relate to exercise, body image, self-image, and self-perception among the growing population. This is so that issues of motivation can be addressed to promote increased adherence and engagement in physical activity and decrease anxiety associated with fear and body image stigma.

## Appendix A: IRB Approval Letter



### INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001  
Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional.review.board](http://www.usm.edu/research/institutional.review.board)

### NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 17082201  
PROJECT TITLE: Enclothed Cognition and Exercise Performance  
PROJECT TYPE: Honor's Thesis Project  
RESEARCHER(S): Trellony Irwin  
COLLEGE/DIVISION: College of Health  
DEPARTMENT: Kinesiology  
FUNDING AGENCY/SPONSOR: N/A  
IRB COMMITTEE ACTION: Exempt Review Approval  
PERIOD OF APPROVAL: 09/28/2017 to 09/27/2018  
**Lawrence A. Hosman, Ph.D.**  
**Institutional Review Board**

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