

Spring 2013

The Role of Social Physique Anxiety, Social Support, and Perceived Benefits and Barrier to Exercise in All-Female Fitness Camp Intervention

Lauren Elizabeth Easton

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/etd>



Part of the [Kinesiology Commons](#), and the [Women's Studies Commons](#)

Recommended Citation

Easton, Lauren Elizabeth, "The Role of Social Physique Anxiety, Social Support, and Perceived Benefits and Barrier to Exercise in All-Female Fitness Camp Intervention" (2013). *Electronic Theses and Dissertations*. 34.
<https://digitalcommons.georgiasouthern.edu/etd/34>

This thesis (open access) is brought to you for free and open access by the Graduate Studies, Jack N. Averitt College of at Digital Commons@Georgia Southern. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.

THE ROLE OF SOCIAL PHYSIQUE ANIXETY, SOCIAL SUPPORT, AND PERCEIVED BENEFITS
AND BARRIERS TO EXERCISE IN AN ALL-FEMALE FITNESS CAMP INTENRVENTION

by

LAUREN ELIZABETH EASTON

(Under the Direction of Brandonn S. Harris)

ABSTRACT

Only 3.2% of Americans ages 20–59 years meet the minimum recommended volume of exercise suggestions. In addition to the substantial percentage of people who fail to meet exercise requirements, only 15% of American adults engage in exercise on a regular basis, i.e. exercising for twenty minutes at least three times per week to improve health. (Schrop, Pendleton, McCord, Gil, Stockton, McNatt, & Gilchrist, 2006). Although the small proportion of those who reach the suggested physical activity levels is a topic of concern for adults, the CDC reports that physical inactivity levels are even higher for females than those of males. In 2008, only 42% of women 18 years and older met the minimal federal levels of aerobic activity through leisure-time aerobic activity (CDC, 2008). Thus, this statistic is distressing as American women are not able to reap the physical and psychological benefits of regular exercise activity. Therefore, the typically underserved population of women should be studied in order to identify what inhibits women from partaking in equivalent amounts of physical activity to males and reaching the minimum federal standards (Huberty et al., 2008).

INDEX WORDS: Social Support, Social Physique Anxiety, Perceived Barriers to Exercise, Female, Social Cognitive Theory

THE ROLE OF SOCIAL PHYSIQUE ANIXETY, SOCIAL SUPPORT, AND PERCEIVED BENEFITS
AND BARRIERS TO EXERCISE IN AN ALL-FEMALE FITNESS CAMP INTENRVENTION

by

LAUREN ELIZABETH EASTON

B.A. Saint Mary's College, 2011
A Thesis Submitted to the Graduate Faculty of Georgia Southern University in Partial
Fulfillment of the Requirements for the Degree

MASTER OF SCIENCE

STATESBORO, GEORGIA

2013

© 2013

LAUREN ELIZABETH EASTON

All Rights Reserved

THE ROLE OF SOCIAL SUPPORT, SOCIAL PHYSIQUE ANXIETY AND PERCEIVED BARRIERS
TO EXERCISE IN AN ALL-FEMALE FITNESS CAMP INTERVENTION

by

LAUREN ELIZABETH EASTON

Major Professor: Brandonn S. Harris
Committee: Daniel R. Czech
Ashley Walker

Electronic Version Approved:
May 2013

ACKNOWLEDGMENTS

I would like to take a moment to offer my sincerest thanks to my family, the members of my committee, and my classmates who have supported me throughout the research process. Over the past 24 years, my parents dedicated their lives to ensuring that my brother and I had opportunities for a quality education. To this day, their work ethics are incomparable to anyone I have ever met. As difficult as it is to be away from home for over six years, open communication has remained a priority that has intensified our bonds. Their unwavering expressions of faith and has strengthened my connection to God, as I pray to continue on the path He set before me.

To Dr. Harris, I am beyond fortunate to have you as my thesis chair. Over the past two years, you have given up your time (and likely your sanity) each week to help me and to teach me to trust the process of research. Your dedication to the success of the intervention inspired me to create a program for the women of the Statesboro community. Dr. Czech, thank you for your positive attitude and unconditional devotion to being others-oriented. Each of our meetings moved me to develop my educational and moral character. You have shown me that life is not defined by events, rather, how we respond to the events. I can't fathom a more caring set of instructors and mentors. You stood beside me in my every endeavor, from making difficult moral decisions to scheduling course selections. Dr. Chopak, thank you for your guidance during my adjustment to graduate school. Your faith encouraged me to find my area of passion in research. I will always cherish you as more than an advisor, as we discussed our love for running and paths for living a healthy lifestyle. Dr. Walker, your actions have affected me far more than your words. I admire your tenacity and zeal for understanding women's experiences through the qualitative interview process. Furthermore, you are a living example of balance, as you manage your roles as a mother, wife, and professor.

I would like to thank my classmates in the Sport Psychology program at Georgia Southern. It pains me to imagine a future graduate school experience without the friends who have become like family to me over the past two years. Each day with them has been filled with laughter, playful banter, and positive support. Their optimistic attitudes were contagious as we sought out adventures in an unfamiliar town that became our home.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	5
LIST OF TABLES.....	7
LIST OF FIGURES.....	8
CHAPTER	
1 INTRODUCTION	9
2 METHODS.....	22
3 RESULTS.....	30
4 DISCUSSION.....	46
Limitations and Implications for Future research.....	56
REFERENCES.....	67
APPENDICES.....	79
A “RESEARCH QUESTIONS, LIMITATIONS, DELIMITATIONS, ASSUMPTIONS, OPERATIONAL DEFINITIONS”.....	71
B “EXTENDED REVIEW OF LITERATURE”.....	75
D “ASSESSMENTS: EXERCISE BENEFITS/BARRIERS SCALE, GODIN’S LEISURE TIME EXERCISE QUESTIONNAIRE, SOCIAL SUPPORT SURVEY, SEMI-STRUCTURED INTERVIEW”.....	79

LIST OF TABLES

Table 1: Wilcoxon Signed Rank Test.....	67
Table 2: Mann-Whitney U Test.....	68
Table 3: Themes of Qualitative Analysis.....	69

LIST OF FIGURES

Figure 1: Group Interaction Process.....	70
--	----

CHAPTER 1

INTRODUCTION

For adults between the ages of 18 and 64, the American College of Sports Medicine (ACSM) recommends engaging in at least 30-60 minutes of moderate-intensity aerobic activity five times a week, or 20-60 minutes of vigorous-intensity aerobic activity three times a week to experience great benefits of health. The specified amounts of cardio vascular activity should be supplemented with muscle-strengthening activities on two or more days per week to improve muscular endurance. The activities may include the exertion of all major muscle groups (ACSM, 2013). In light of these recommendations, research by Troiano, Berrigan, Dodd, Mâsse, Tilert, and McDowell (2008) reveals that only 3.2% of Americans ages 20–59 years meet the minimum recommended volume of exercise suggestions.

The troubling statistic that a significant amount of American adults do not meet the minimal recommendations for physical activity contributes to the concern of escalation of obesity rates for men, women, and children. The CDC (2010) reported that over one-third of American adults (35.7%) are currently obese and this figure will continue to rise. In addition to becoming obese, there are other various risks to neglecting to engage in regimented exercise behaviors. For instance, maintaining a sedentary lifestyle can increase an individual's risk for developing risk factors related to cardiovascular disease, high blood pressure, high cholesterol, and the development of Type II diabetes (DHHS, 1996).

Furthermore, Fisher, Pickering, and Li (2002) found that participating in regular exercise had numerous benefits, including reducing the risk of physical injuries and functional limitations related to age. It also helps with weight control, bones and muscle strength, and

improving mood (CDC, 2010). Although exercise equally benefits men and women, older women engaging in physical activity can reduce their risk of osteoporosis and certain types of cancer (Eyler, Brownson, King, Brown, Donatelle, & Heath, 1997). In addition to the physical benefits associated with sustained physical activity, research has also documented the positive psychological effects that result from exercise.

Exercise has been shown to promote holistic wellness (Myers & Sweeney, 2005). It is also associated with increases in energy, improvements in self-esteem, self-concept, and a sense of self-efficacy (Chung & Baird, 1999; Kennedy, 2007; McAuley et al., 2008; Myers & Sweeney, 2005; Netz, Wu, Becker, & Tenenbaum, 2005). Routine exercise can reduce stress, anxiety, depression, and sleep disturbance (Stathopoulou, Power, Berry, Smits, & Otto, 2006). Tiggemann and Williamson (2000) found that women exercise more for the reasons of weight-control, tone, and mood enhancement than men. However, there have not been any research findings that demonstrate that males and females are motivated to gain separate and specific psychological benefits from exercise (Tiggemann & Williamson, 2000).

Meta-analyses on the impact of physical activity reveal the physiological and psychological significance of duration of physical activity. The results indicate that individuals who maintain federal recommendations of low to moderate activity may reap additional benefits by further increasing their physical activity levels. However, the research has been limited in various ways. For example, the term exercise dosage has typically been used to describe the variations in a single type of activity (i.e., frequency, intensity, duration, or length of time engaged in the activity). Additionally, only acute bouts of exercise have been studied with attention to the several physiological consequences of differing exercise doses (Heitmann, Owen, Crawford, Bauman, & Sallis, 2003). Haskell (1994) postulates that age, gender, and baseline

physical activity and fitness levels play a role in the dose-response relationship for a specific biological outcome.

Although the small proportion of those who reach the suggested physical activity levels is a topic of concern for adults, the CDC reports that physical inactivity levels are even higher for females than those of males. In 2008, only 42% of women 18 years and older met the minimal federal levels of aerobic activity through leisure-time aerobic activity (CDC, 2008). Thus, this statistic is distressing as American women are not able to reap the physical and psychological benefits of regular exercise activity. Therefore, the typically underserved population of women should be studied in order to identify what inhibits women from partaking in equivalent amounts of physical activity to males and reaching the minimum federal standards (Huberty et al., 2008).

Huberty and colleagues (2008) assert that women face more challenges in participating in and adhering to physical activity programs than men. Copious amounts of research have been dedicated to investigating the reasons why women are not as physically active as their male counterparts. For instance, Johnson, Corrigan, Dubbert, and Gramling (1990) sampled 226 community women aged 18–72 years to identify their exercise habits, weight control methods, and perceived barriers to beginning and maintaining exercise and weight management programs. The most significant factor impeding exercise was a perceived lack of time while the reported barrier to weight management was a lack of willpower and time. Zhu, Timm, and Ainsworth (2001) conducted a similar study in which the researchers examined urban females' exercise perseverance and barriers. Similar to Johnsons's et al. (1990) study, time was the strongest barrier domain to group exercise perseverance while a lack of self-discipline barrier was the most reported individual obstacle to exercise perseverance.

According to Scotland's Women's Sport and Fitness Foundation (1999), there are social/cultural barriers and personal barriers to women's participation in sport and physical activity. Social/cultural barriers include: a perceived lack of time and childcare, lack of money, lack of transportation, concerns for personal safety, a deficiency of program funding, access to facilities, and costly clothing and equipment. Personal Barriers commonly consist of body image dissatisfaction, lack of self-confidence, perceived attitudes and prejudices about sexuality, weak parental and adult influences, attitudes and prejudices about disability, sexual harassment and abuse, attitudes and prejudices about ethnicity, and female invisibility/media representations and lack of role models in sport. Other barriers to exercise may include a perceived lack of time or motivation, fear of injury, cost, and boredom (Owen, Salmon, Crawford, Bauman, & Sallis, 2003).

Bandura's (1986, 1997) social cognitive theory provides a sound framework for the investigation of physical activity behavior. The theory states that individuals develop skills and behavioral patterns through modeling others and are subsequently reinforced by their peers (Garcia & King, 1991). The theory attends to the psychosocial dynamics and means for promoting behavior change (Baranowski, Perry, & Parcel, 2002). It provides explanations for patterns of human behaviors that can be used to understand exercise motivation and adherence. It can also aid in establishing interventions that will encourage the introduction and continuance of physical activity.

Sharma and Romas (2012) explain social cognitive theory as a "triadic reciprocal causation" (p.174) with three angles to explain behavior, including behavior, environmental factors, and personal factors. Their continuous interaction another is known as reciprocal

determinism and is typically followed by a behavior change (Baranowski, Perry, & Parcel, 2002).

McAuley (1993) investigated the relationship between self-efficacy and structured exercise adherence among sedentary, middle-aged, and older adults. The results of the study indicated that self-efficacy is most influential on exercise adherence prior to new challenges, such as when enrolling in an exercise program (McAuley, 1992; McAuley, Courneya, Rudolph, & Lox, 1994) or adhering to exercise after a structured program ends (McAuley, 1993)

Social cognitive theory identifies constructs including knowledge, outcome expectations, outcome expectancies, situational perception, the environment, with self-efficacy being the most significant, as it pertains to accounting for behavior change (Huberty, et al., 2008). Individuals construct expectations regarding their expectations involving their confidence to effectively complete a task and the results of their actions

Social cognitive theory accentuates the potential of individuals in the form of five basic human capabilities: symbolizing capability, vicarious capability, forethought capability, self-regulatory capability, and self-reflective capability. Symbolizing capability involves acquiring the meaning of symbols in everyday experiences. It applies to an individual's ability to cognitively assess and control an environment. Vicarious capability is a form of modeling that refers to monitoring and evaluating the behaviors of others. Individuals can acquire and even masters skills with a combination of imitation and ingenuity. Forethought capability demonstrates how humans act following a contemplation of potential consequences to their behavior. Most often, humans are motivated to act because of some perceived reward. Self-regulatory capability is concerned with self-appraisals of behavior to meet internal standards. When individuals fall short of performance expectations and fail to reach goals they exude

frustration and disappointment. Lastly, self-reflective capability refers to the assessment of experiences and cognitive thought processes. Humans formulate ideas and construct judgments of situations based on a potential outcome. They alter their behaviors based on the results of past events. Bandura (2001) postulated that individuals validate their thought processes by enactive verification (the comparison between thought and action), vicarious verification (comparing others' actions to personal beliefs), persuasive verification (comparison of personal beliefs to the beliefs of others, and logical verification (comparison of personal beliefs to accepted knowledge of a population).

Constructs of social cognitive theory can be applied to health promotion behaviors in exercise settings. Some of the Bandura's (2004) constructs highlighted in the present study include situational perception, outcome expectancies, environment, self-efficacy, self-efficacy in overcoming impediments, goal-setting, and emotional coping (Sharma & Romas, 2012). The social constructs help to explain the underlying factors of initiation and maintenance of physical activity routines, such as social support, education, enjoyment, and self-efficacy (White, Ransdell, Vener, & Flohr, 2005).

An essential element of social cognitive theory is the role of the environment for physical activity (Annesi, 2004). One characteristic of fitness boot camps and group exercise programs alike is the element of social support in the physical activity environment. Alcock, Carment, and Sadava (1991) define social influence as a "real or imagined pressure to change one's behavior, attitudes, or beliefs" (p. 105). The types of social influence include various forms of social support, such as instrumental support (tangible support), emotional support (encouragement), informational support (issuing directions or advice), companionship support (interaction with peers), and validation (measuring oneself up to with others to determine progress and to reaffirm

that one's thoughts, feelings, problems, and experiences are ordinary. Increased levels of perceived autonomy and support from peers is related to identified and intrinsic regulations (Annesi, Unruh, Marti, Gorjala, & Tennant, 2010).

A vast amount of research has illustrated that being a member of a group is related to the factors that contribute to increased adherence and compliance to a behavior. In reference to adherence and compliance in a physical activity program, Kahn and colleagues (2002) discovered compelling evidence for the effectiveness of interventions, such as exercise programs, that highlight social support and are presented in community settings. Other studies such as Burke and colleagues (2006) and Carron, Carron, Hausenblas, and Mack (1996) indicate that group-based physical activity programs are more impactful than individual-level or home-based interventions in terms of adherence and compliance to physical activity.

Furthermore, research has demonstrated that participation in exercise alone does not directly lead to positive psychological outcomes. The exercise stimulus (such as the mode, duration, and intensity) and social-environmental factors impact the quality of the exercise experience. Positive psychological responses to acute exercise are associated with levels of motivation, especially for those individuals with body image concerns (Focht & Hausenblas, 2003).

According to Kovačova, Stejskal, Neuls, and Elfmark (2011), physical activity conducted in a group setting provides the opportunity for individuals to cultivate social contacts and personal relationships. Group exercising can also foster feelings of satisfaction and inspire the participants to perform better and make them more likely to adhere to a program than if they were exercising without peers. Spink and Carron (1992) concluded that cohesion among exercising women is the most significant factor in determining adherence to exercise.

Participation in a common task or performance leads to high levels of cohesion, increased levels of enjoyment, and self-satisfaction. By fostering an environment that promotes healthy behaviors in a group setting, through which participants can acquire experiences and relationships with other participants, the probability of exercise behavior can be increased (Sharma & Romas, 2012). One increasingly popular format of group exercise in the United States are boot camp-style fitness programs.

Several characteristics of boot camp-style exercise programs separate it from group fitness classes. Boot camp exercise programs have gained popularity in the United States due to their structured regimens and intense nature. In one southeastern boot camp-style fitness program, the aim is to lower campers' body fat percentages, increase levels of endurance, stamina, strength, and flexibility through cardio and strength-training sessions. Additionally, the program delivers nutritional information, technique assistance, and fitness assessments to participants to contribute to their progress. There are typically contests, workshops and other activities to motivate participants to attain their goals (i.e. weight loss and/or physical conditioning) (Bethany's Bikini Fit Camp, 2012).

Boot camp-style fitness program instructors typically spend more time working with individuals outside of the class to identify specific training goals, nutrition, injuries, and any other lifestyle factors associated with physical activity adherence. Each workout session is different from the previous session, compared to the routine monotony of a group fitness class. Boot camp fitness classes may also be held in a variety of locations, such as in a park or on a running track. Group fitness classes are generally held in a single venue, such as inside of a gym. A plethora of equipment is used in the classes, such as bodyweight, dumbbells, kettlebells, fitballs, skipping ropes, bands, wobble boards, medicine balls. Group fitness classes mostly

utilize the same equipment for each class, such as a spin bike, free weights, or a yoga mat (PerthFitnessBootCamps.com, 2012).

Bandura (2001) suggests that a key construct of social cognitive theory is situational perception, or how an individual observes and interprets their personal environment. Individuals place significance on particular aspects of their environment that in turn influence their behaviors. Mass media in the United States plays a significant role in the lives of children, adolescents, and adults (Comstock & Scharrer, 2007; Harris, 2004). Oftentimes, the media portrays unrealistic standards for gender, attractiveness, ideal body sizes and shapes, self-control, desire, food, and weight management (Bordo, 1993; Currie, 1999; Spitzer, Henderson, & Zivian, 1999). The themes of the portrayals often include: being sexually attractive is of utmost importance; the sources of ideals about attractiveness, style, competitive practices for becoming and staying beautiful are located outside the self; and mass media is the most significant and source of the information, motivation, and products necessary to be beautiful and fashionable (Ballentine & Ogle, 2005; Labre & Walsh-Childers, 2003).

The influence of the mass media is a mechanism by which women develop perceptions of norms of Western culture. Body image, or an individual's psychological experience of their body's physical appearance and function of his/her body, is one facet of an individual's mental representation of the self (Friedman, Reichmann, Costanzo, & Musante, 2001). It can be a direct result of the influence of the physical characteristics highlighted as important by the national media. Body image is two-dimensional, including evaluative body image and body image investment. Evaluative body image is comprised of cognitive appraisals and associated emotions about an individual's appearance. Body image investment represents the cognitive-behavioral

significance of appearance in individual's personal life and its relation to their sense of self (Friedman, Simona, Reichmann, Costanzo, & Musante, 2002).

Research by Levine and Smolak (2006) supports the role of the mass media in influencing health behaviors. They argue that females become dissatisfied with their bodies as a result of a schema that assimilates three elements of Western culture, including idealization of slenderness and leanness, an irrational fear of fat, and a conviction that weight and shape are central determinants of one's identity (Levine & Smolak, 2006; Smolak & Levine, 1994, 1996).

The concept of an "ideal" physique contributes to mood and body image disturbances in females. Researchers have asked female participants to view either non-physique or "ideal" physique pictures after completing 30 minutes of either aerobic exercise or quiet rest. The results demonstrated that those participants who viewed the "ideal" physique pictures reported higher levels of depression and body dissatisfaction than those who viewed non-physique pictures, despite their level of exercise intensity (Fallon & Hausenbas, 2005).

Vartanian and Shaprow (2008) investigated the relationship between weight stigma, exercise motivation and exercise behavior. Participants reported experiences with weight stigma, body dissatisfaction, self-esteem and exercise motivation, and reported exercise behaviors assessments. The researchers found that stigma experiences were correlated to increased desire to avoid exercise, thus implying weight stigma may negatively affect physical activity levels. Cullari, Rohrer, and Bahm (1998) measured weight dissatisfaction, body dissatisfaction, and body-image distortion and discovered a significant association between body-image dissatisfaction and self-confidence for the women.

Internalizing the media's ideals of physical appearance can direct individuals to participate in exercise programs, in hopes of achieving their ideal self. However, this form of

extrinsic motivation will not guide individuals to continue to adhere to a program and maintain exercise behaviors, particularly in middle-aged women (Annesi, 2004). Therefore, the images portrayed in the media become discouraging and can dissuade females from participating in a regular exercise program.

Self-efficacy is the degree of confidence an individual has in their ability to complete a task or obstacle. It is shaped by the individual's level of motivation, thought patterns, and emotional reactions and affects the amount of effort applied to a task and the attained level of performance (Baranowski, Perry, & Parcel, 2002). The amount of self-efficacy and individual has is momentary, particular to a current situation or task. Observational and participatory learning techniques can be utilized to initiate and promote health behaviors in an incremental manner. The more times an individual successfully repeats a behavior, the greater their expectation becomes to succeed in the task, therefore influencing their task persistence, initiation, and endurance (Baranowski, Perry, & Parcel, 2002). If an individual does not believe that their behavioral efforts will not result in the preferred consequences, they are unlikely to attempt the behavior at all (Bandura, 1997).

A substantial amount of research has determined that self-efficacy is a considerable factor in determining participation and achievement in exercise behaviors for women (McAuley & Blissmer, 2000) The greater level of self-efficacy, the more likely the woman is to participate and adhere to an exercise program (Huberty, et al., 2008). Moreover, Huberty and colleagues (2008) found that those who adhered to exercise regiments were most greatly influenced by motivation, activity enjoyment, priorities, body image, ability to access support, and self-regulation skills. The researchers concluded that once women begin an exercise program, they must value themselves enough to persist in physical activity.

Each one of the instructors in the reviewed fitness camp, including the director, was a former participant in the program. Bandura (2004) identifies this construct of social cognitive theory as self-efficacy in overcoming impediments. The role models who have successfully completed the program and have developed long-term adherence to exercise, they can modify the construct of an individual's self-efficacy. They can serve to reduce fear and anxiety about obstacles, such as completing a mile run, and give the participant the confidence they need to overcome barriers.

Goal-setting is one means of measuring self-efficacy. Prior to beginning a boot camp exercise program, participants are asked to write their short-term and long-term goals on a goal sheet. In Burke, Shapcott, Carron, Bradshaw, and Estabrooks' (2010) study, the researchers identified a positive relationship between group goal setting and group performance in an exercise setting.

Bandura's social cognitive theory of emotional coping describes the acquisition of knowledge, which refers to understanding facts and insights related to actions, ideas, objects, people, or situations. It is imperative to gain knowledge of a behavior change, such as attending an exercise program. Individuals should be aware of the advantages, disadvantages, and potential risks of the activity. In a fitness camp setting, information is offered in the form of workshops, lectures, fact sheets, individual meetings between the instructor and the participant, and through demonstrations. Participants gain knowledge of nutrition, fitness, stress relief, as it applies to weight loss and physical conditioning (Bethany's Bikini Body Fitness Camp, 2012).

There are gaps in the research devoted to determining the reasoning for females' participation and adherence to physical activity. In addition to quantitatively measuring the factors that influence exercise behavior, it is essential to qualitatively measure the experiences of

females currently enrolled in an exercise program. This will help professionals understand their common experiences, opinions, feelings, and knowledge pertaining to their experiences in a boot camp-style exercise program and may reveal novel findings related to the psychosocial effects of exercise that have not been formerly exposed (Huberty, et al., 2008).

Given the gap in the current literature for identifying modifiable factors that influence physical activity participation in females and the unknown effects that fitness camp exercise programs have on psychosocial variables of its participants, it was essential to investigate how social physique anxiety, perceptions of social support, and perceived barriers and benefits to exercise for females can change over a period of a of six weeks following the completion of a fitness camp fitness program. This study examined the psychosocial changes in the constructs of social cognitive theory in a female-only fitness camp environment across three six-week segments from both a qualitative and quantitative approach.

A mixed methodological approach allowed the researcher to use semi-structured interviews and questionnaires to gather extensive information regarding how their emotions and belief systems of social physique anxiety, barriers and benefits to exercise, and perceived barriers to exercise changed over the course of the six-week program. Following the completion of the study, participants were selected to provide descriptive explanations of their experiences over the course of the fitness camp intervention. This study aimed to identify the common experiences that female participants encounter throughout the program and identify the factors contributing to changes in social physique anxiety, barriers and benefits to exercise, and perceived barriers and benefits to exercise.

CHAPTER 2

METHODS

Bias Exploration and Bracketing

Interviews are the most frequently used sources for collecting data in qualitative research (Thomas, Nelson, & Silverman, 2011). As such, the most critical component of the phenomenological interview approach in qualitative research is the researcher (Czech, Wrisberg, Fisher, Thompson, & Hayes, 2004). Czech and colleagues (2001) suggest that the investigator may have biases that can blight the data acquisition process if the biases are not addressed prior to the study. In order to remove the detrimental biases, the researcher will undergo the same interview process as the participants will experience in the study. The bracketing interview process helped to identify and eliminate biases and partialities. A qualitative research professor from Georgia Southern University with qualitative research experience guided the interview. The interview helped the researcher recognize any predispositions she may have regarding her experiences towards the experience of a fitness program for females so as not to direct or influence the responses of the participants.

Participants

The study consisted of 62 females, with ages ranging from 23-61 years ($x = 35.66$ years), who were enrolled for at least one six-week session at a southeastern boot camp-style fitness program. Research by Klieber and Kelly (1980) provide evidence for the delineation of age groups.

The participants were purposively chosen for this study because they are members of the specialized population that can provide rich information on the topic (Patton, 2002). Participants who engaged in more than one six-week session were only asked to provide information

regarding their current experience, rather than a summation of multiple boot camp experiences. The sampling method was convenient because participants were readily available ninety miles from the researcher's place of employment. The participants registered to take part in a six-week boot camp-type exercise program with an emphasis reducing body fat, strengthen muscles, increase endurance, stamina, strength, and flexibility while working out in a group setting. The instructor's aim for the program was to establish an environment of motivation and encouragement with support for healthful living.

The boot camp-style fitness program was also designed to help participants develop skills in goal-setting and tracking, problem solving, and stress management. It provided participants with a structured fitness plan to alter or enhance their current health behaviors. Participants kept track of their fitness goals and reported progress to the instructor. The instructor challenged participants to push beyond their comfort zone during sessions to reach their fitness goals. Campers were asked to participate in the study based upon their registration for a six-week session of camp between the months of September and December of 2012. Prior to beginning the session, the participants completed a demographic questionnaire that included information about their age, race, marital status, number of children, and the number of previously attended sessions.

Instrumentation

Social Physique Anxiety. The Social Physique Anxiety Scale (Hart, 1989) is a twelve-item scale used to measure apprehension related to a female's figure in a fitness environment. It includes a five-point Likert-type scale with anchors of 1 (not at all) 2 (slightly) , 3 (moderately), 4 (very), and 5 (extremely). There are two sub-scales for the Social Physique Anxiety scale, including Feeling of Discomfort (FOD) and Expectation of Negative Evaluation (ENE). The

measure contains construct validity, test-retest reliability, internal consistency ($\alpha = .90$), and minimal social desirability bias.

The Benefits and Barriers to Exercise Scale. The Exercise Benefits/Barriers Scale (EBBS) was developed in 1985 by Sechrist, Walker, and Pender to determine the perceptions of individuals regarding the benefits of and barriers to partaking in exercise. The 43-item instrument yielded a Cronbach's alpha level for a standardized alpha of .95. Factor analysis produced a nine-factor solution, accounting for 65.2% of the variance. Second order factor analysis produced a two-factor solution, including a benefits factor and a barriers factor. Test-retest reliability was established with a .89 on the total instrument, .89 on the Benefits Scale and .77 on the Barriers Scale (Sechrist, Walker, & Pender, 1985).

Social Support. The 10-item instrument was originally created for adolescents to report the level of encouragement, participation, and praise from friends and family, as well as the individual's encouragement to engage in physical activity. The participants described support as given "Never = 0, Once = 1, Sometimes = 2, Almost Every Day = 3, Every day = 4."

Physical Activity Behaviors. The Godin Leisure Time Questionnaire is used to assess leisure time exercise behavior and track changes in behavior after the implementation of health and physical fitness programs. The self-report instrument asks participants to reveal the amount of exercise they engage in during a typical week (light, moderate, and strenuous levels). Examples of the various types of activities are given and participants record the number of days each week they spend on partaking in the specified levels of exercise for at least 60 minutes. The reliability and concurrent validity were established after researching 306 self-selected healthy adults (Godin & Shephard, 1985).

Researcher. The researcher is the primary investigator in a qualitative study. It is the

responsibility of the researcher to set aside their biases and expectations for the results of the study. If these biases are not removed, they could impact the interview protocol, the responses by participants, and the interpretation of the interviews. As a graduate student in the Sport Psychology program at Georgia Southern University, I have been instructed and trained to maintain a professional attitude and appearance while conducting the study. I followed instructions given by the qualitative researcher on the committee.

Bias Exploration and Bracketing of the Interviews. Czech and colleagues (2004) developed an existential-phenomenological method to accumulate and analyze data from qualitative interviews. Fischer (2008) defines bracketing as “an investigator’s identification of vested interests, personal experience, cultural factors, assumptions, and hunches that could influence how he or she views the study’s data” (p.583). The researcher must address and “bracket” any biases that they may have about the population and nature of the study. The researcher can shelf their assumptions by participating in the interview process in the same manner as the participants in a later stage of the study.

Procedure

The consent form explained the described the purpose of the study, the measurements of Social Physique Anxiety Scale, the Exercise Benefits/Barriers Scale (EBBS), Self-Efficacy for Exercise Questionnaire, Social Support Scale, and the Godin Leisure Time Questionnaire before and after six weeks of camp (equaling one session). Moreover, the consent form notified participants that involvement in the study was voluntary. Participants could withdraw from the study at any point if they feel distressed about disclosing information about their experiences. The form gave a description of the qualitative interview process, mentioning that a select few campers would be asked to provide information about their particular experiences. Lastly, the

participants were assured that the personal information and responses would remain anonymous throughout duration of the study.

Following the completion of the consent form, each of the participants were asked to complete a short demographics survey, which required information including age, race, marital status, number of children, the number of sessions they have previously completed, and the location they most frequently attend for camp sessions. The number of previous sessions attended was held constant so as to control the influence of the segment exposure and to prevent the information from influencing the results. Next, the researcher distributed a packet containing the Godin Questionnaire, Social Physique Anxiety Scale, Exercise Benefits/Barriers Scale (EBBS), Self-Efficacy for Exercise Questionnaire, and Social Support Scale. The surveys were then collected for data analysis. The campers' attendance and report of previous exercise were monitored through the Godin Questionnaire.

For six-week periods, participants engaged in an interval style of training, involving periods of high-intensity work intermixed with periods of low-intensity work. Exercises included jogging, sprinting, plyometrics, push-ups, dips, squats, lunges, mountain climbers, jump rope, bicep curls, shoulder press, crunches, plank, stair climbing, and jumping jacks. Each instructor is a former boot camper and has gone through the same physical program as the participants. Each workout was designed to burn maximum amount of calories while also toning and sculpting the body.

Following the completion of each of the six-week segments, the participants were asked to complete the Social Physique Anxiety Scale, Exercise Benefits/Barriers Scale (EBBS), Social Support Scale, and a Godin Leisure-Time Questionnaire. The surveys were collected for data analysis.

Interview Protocol

Following the completion of three six-week segments, six interview participants were selected to describe their fitness camp experience. They were chosen based upon the expert recommendations of the instructor of the fitness camp. The interview questions were given in semi-structured style to examine the essence of the human experience and gain a holistic perspective of the participation in a fitness camp. The information was used to support the results of the quantitative measures and indicate new findings.

Participants were notified by email regarding the request for information. Once the participant agreed to discuss their experience with the researcher, they provided a time at which they could be reached via Skype or FaceTime. Each of the interviews lasted between 29-35 minutes and recorded by a cellular voice recorder and a digital recording device to ensure transcription accuracy. The electronic file was imported on to a computer and sent to a professional transcriber. Additionally, the researcher took diligent notes throughout the interviews. The notes were used for probing questions to gain further insight into the participant's experience.

Patton (2002) recommended the following principles for conducting interviews, including:

1. Each interview should be held at a time established by both parties.
2. Participants should feel contented sharing experiential information with the interviewer.
3. Participants should be made aware that their information will remain anonymous and will not be affiliated with their identity.
4. Interviewer should build rapport with the participant before beginning the interview, such as thanking them or explaining the purpose of the conversation.

5. Probing questions may be used to allow the participant to elaborate on responses.
6. The interviewer may allow for gaps in speech to permit the participant to collect their thoughts.
7. The interviewer should avoid using leading questions to gain desirable responses.

The semi-structured interview began with the following question: “Tell me about your experience at fitness camp.” At various times throughout the interview, the researcher asked participants to elaborate on their responses and explain their points in a precise manner. Sample questions include “You mentioned _____. Can you elaborate on that for me?” and “Can you explain what you meant by _____?” (Hoffman et al, 2009).

The interviews were conducted via phone and recorded using a digital recorder to save the information. Next, a professional transcriber recorded the interviews were transcribed into a Word document for analysis (Hoffman, Czech, Blazo, Zwald, & Metzler, 2009).

Data Analysis

Quantitative analysis. The completed surveys from the pre-testing and post-testing period were entered into SPSS Version 21.. Survey scores were calculated, including the reverse scoring for the Benefits and Barriers to Exercise and the Social Support scales. A Wilcoxon signed-rank test was used to identify significant differences across all participants for Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale from before and after the fitness camp intervention. The non-parametric method was used to determine whether there were significant differences between the pre-tests and the post-tests of the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale.

Four Mann-Whitney U tests were executed to determine whether there was a significant difference in the change scores, or the difference between the pre-test and post-test scores, for

the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale. The change in scores was conducted by subtracting each participant's pre-test scores from the post-test scores for the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale (Figure 2). The next step was to determine whether there was a significant difference between the scores before and after the six-week intervention. The independent variable was represented by time, while the change scores, represented by the difference from pre-test scores to post-test scores were designated as the dependent variables.

Qualitative Analysis. The rich descriptive information obtained from the interviews was analyzed through a series of triangulation techniques in an attempt to interpret and associate meaning to the responses. First, the researcher transcribed and analyzed the interviews from each of the participants. Once the researcher obtained a grasp of the participants' responses, the researcher began to focus the data. The data was later bracketed and reviewed by the research advisor.

Further analysis included member-checking, understanding the participants' responses, dissecting the transcribed interviews, bracketing the participants' answers, eliminating the researcher's bias from the data, throwing out unnecessary, repetitive, or overlapping data, and creating response categories. The researcher identified and described the collection of themes by reviewing the transcriptions. Opinions from peer experts were requested for examining the process and the product (Hoffman et al, 2009).

CHAPTER 3

RESULTS

The data for the study violated the assumptions associated with a normal distribution due to the unequal cell sizes for the comparison groups and significant skewness or kurtosis values. Therefore, non-parametric tests were used to compensate for the uneven cell size and number of participants in the study. The Wilcoxon signed-rank test was used to identify significant differences across all participants for Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale from before and after the fitness camp intervention. The non-parametric method was used to determine whether there were significant differences between the pre-tests and the post-tests of the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale.

The Wilcoxon signed-rank test compared scores from the pre-test to the scores from the post-tests in each survey, to determine whether there was a significant difference following the six-week intervention (Figure 1). The results did not indicate significant changes between testing periods for the Social Support Scale or the Social Physique Anxiety Scale. The asymptotic significance value for the change in the Social Support scale is .801. The asymptotic significance value for the change in the Social Physique Anxiety Scale is $p = .155$; thus, the null hypothesis was retained. However, the Exercise Benefits and Barriers Scale yielded a significant value of $p = .028$. Given that $p \leq .05$ alpha level, the null hypothesis was rejected. The value indicates that the number of perceived barriers to exercise significantly decreased for participants over the following the six-week fitness camp intervention.

The Wilcoxon Signed-ranks test indicated that Benefits and Barriers to Exercise scores significantly changed from the pre-testing period ($Mdn = 72$) to the post-testing period ($Mdn = 70.5$), $Z = -2.20$, $p < .05$, $r = -0.29$ (See Table 2). A second Wilcoxon Signed-ranks test indicated that the Barriers to Exercise scores significantly changed from the pre-testing period ($Mdn = 29$) to the post-testing period ($Mdn = 27.5$), $Z = -2.27$, $p < .05$, $r = -0.30$ (See Table 2).

Next, the participants were placed into two groups, depending on the reported frequency of moderate and/or vigorous physical activity for each week. The participants were placed into the “Met ACSM recommendations” group or the “Did not meet ACSM recommendations” group. Four Mann-Whitney U tests were executed to determine whether there was a significant difference in the change scores, or the difference between the pre-test and post-test scores, for the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale. The change in scores was conducted by subtracting each participant’s pre-test scores from the post-test scores for the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale (Figure 2). The next step was to determine whether there was a significant difference between the scores before and after the six-week intervention. The independent variable was represented by time, while the change scores, represented by the difference from pre-test scores to post-test scores were designated as the dependent variables.

Additionally, the measures corrected for unequal cell sizes. The dependent variable was whether the participants met or did not meet weekly exercise frequency or intensity recommendations. Eighty percent ($n = 60$) of participants met the ACSM’s recommendations for frequency and/or intensity of weekly exercise. Of the 62 total participants, 12 (20%) campers did not meet the weekly exercise recommendations from the ACSM for intensity or frequency of physical activity. Figure 1 illustrates the average change scores for each of the surveys.

The qualitative results were formulated through identifying themes in written transcriptions of the participant interviews. Each of the participants completed at least one six-week session of the fitness camp intervention. Following the analysis of the transcriptions, five themes with three subthemes. Themes were determined when a majority, or four of six participants, described similar topics during the interviews. The themes included the (1) the outside environment of the fitness camp, (2) social support from the boot camp, (3) increase in self-efficacy (4), increase in exercise and health knowledge (5), exercise variety increased enjoyment. Subthemes included (a) encouraging support from campers, (b) instructor support, (c) cohesion among the members of the boot camp, (d) learning from instructors, (e) learning from social media. Each of the themes represents the holistic experience of the sampled participants (Table 3).

Theme #1: The outside environment of the fitness camp

The first theme involved the physical environment of the fitness program. Descriptions from participants mentioned aspects of nature, including the fresh air and sunshine. They also appreciated the use of resources at the intervention's location:

“You know, you can do five miles on a treadmill and yeah you can get it done, but for me when I get on the treadmill or things like that it just feels so monotonous. When you are outside you have scenery, you have fresh air and just being able to use the environment to do challenging exercises as well using the stairs that we use. There is just something about the outdoors and having all that scenery that's helpful. It's uplifting being in the sunshine. You know, all that is good for your mood as well. You hear about winter time being such a depressing time for people because of the lack of sunshine but at least if you

are getting out you are getting some of that light because you are not stuck in a building, not that gyms don't have any benefit at all, I mean I have a gym membership. I don't go there often, but I do go there sometimes for weights and stuff like that. But for me being on stationary equipment, it's as... exciting as going outside and running a mile out in the open air." (Participant 9)

"Well I like to be outside. Except if it's 100 degrees. I mean I like the fresh air. I like, I don't like to be in an enclosed space, I like to be outside. I like to go and I like to be outside. I mean there's something about being outside that you know, fresh air and no smelly gym..." (Participant 48)

"...I like the fact that it is outside to me, it helps me kind of in my whole general life...it is a lot more pleasant... when you are doing crunches looking up at the birds flying by instead of looking up at the ceiling at the gym." (Participant 7)

A participant portrayed the convenience of the fitness camp setting in the following ways:

"Well, I guess to be in our area[Augusta], and a nice clean area there by the library, it's the one I went to, the one by the library, park, just easy as far as parking, it's right there by the parking lot, just very convenient." (Participant 4)

"She was also able to take advantage of the stairs, there was the tracks, and then there were the bricks, the brick sitting for the amphitheater, you know, she was able to use that

as part of the exercise, and then on the rainy days she could do it under the picnic shelter, so unless the weather was really bad she still continued on in the rain and, just, she was able to modify all the time” (Participant 4)

In summary, the majority of participants preferred physical activity outdoors to the confined spaces, crowds, enmity, and monotony of a gym.

Theme #2: Social support from the boot camp

Encouraging support from campers. The majority of the participants mentioned receiving support from the other participants in the program. Additionally, they described the influence of the encouragement on their performance:

“Well... the people that are more, have been going for a few more sessions, you know, encourage the others to check it out and try their best and, you know, run faster, run harder, run more, (and) not walk. I mean it’s just positive environment.” (Participant 48)

“Well for me always having someone there encouraging you and people that will notice any changes other than their own, you know, I have had a lot of compliments from people about my progress in the program and that is all, you know, encouragement when you might not be seeing something, someone else sees it, it just (kind of) encourages you to continue on and you know that you are doing well in the program and so I think women need that from one another as there are a lot of times in the world we are competing with

one another and comparing ourselves to each other and when you are in a program where people are continually uplifting one another it is a blessing to have that” (Participant 9)

“It was good, and then also the women who’ve been doing several sessions, you know, they were always encouraging, and like they would point out, ‘I couldn’t do a single push-up my first time, and now I can do ten,’ and just things like that.” (Participant 4)

”So you have the instructors encouraging you and, you know, you have the other girls doing that as well, encouraging you. You know, ‘You can do it.’ I remember a few sessions after I started working out, there was a girl next to me doing a plank and I remember telling her “just aim for five seconds” and then “aim for 10... think about that” and then, ‘Aim for 10,’ you know, and kinda build her up that way” (Participant 316)

“The girls will run past you when you are running and they will say, ‘Good job.’ So you do get a lot of encouragement” (Participant 103)

In summary, participants recognized the verbal recognition from the other members of their session. The veteran campers offer advice and share their journeys with the new members. The positive social support circulates through the group and contributes to their performance.

Cohesion among the members of the fitness camp. The interviewees described the personal bonds shared and relationships built with the other members in the program:

“...A lot of the woman are there constantly and when you get to know the people in the classes and you see them every day, every week you just get to see them reach their goals and encourage one another and it just has really been a blessing” (Participant 9)

“We're like a group I mean and a lot of us go at the same time so we all know each other and now and we're friends [sic]. And then...the new people come along and then we're the encouragers to them.” (Participant 48)

“...It has to do with the camaraderie that I found there...a lot of the women are there constantly and when you get to know the people in the classes and you see them every day, every week, you just get to see them reach their goals and encourage one another and it just has really been a blessing” (Participant 9)

“...As corny as it may sound, it has kind of become like a second family to me. It is something that I can't imagine not going there not seeing... friends of mine that I have made, not working out with those trainers... it is quite a motivational experience there. I feel like I've grown so much as a person, in my physical... in a lot of ways... it's family to me” (Participant 9)

“We developed a good relationship, but beyond that, the health benefit alone, because at my age, at 62, you're finding that you're not the spring chicken you used to be, and you just can't move around like you used to and if you don't, at 65 you really may not be able to. That's what I think about, it's how much more active I can be, my endurance is better with Bethany...” (Participant 103)

In summary, the campers are more than acquaintances, they are friends who see each other often and sometimes consider each other family.

Instructor support. Participants recalled using their instructors as a source of emotional support and confidence throughout their progress in sessions:

“Bethany herself, she so positive and encouraging – she actually cares if you show up or not and she notices if you show up or not.” [Participant 48]

“She stresses the importance of being a role model for your children, as far as eating, healthy eating, exercise, and making it just a part of your daily activity. And I think in a lot of her encouragement, towards women and mothers, not to put themselves last.” (Participant 4)

“... We note each other’s progress. It’s not that we are competing at all or putting pressure on each other, but you do notice when people are...accomplishing things or doing better than they did before” (Participant 316)

“You know I was a couch potato, hadn’t really worked out, really didn’t have any skill, never considered myself to be athletic and she was standing there and she wasn’t judging me or making me feel like, ‘Ok, we are going to [sic] have to start down here and this is what we can do for you.’ They [Bethany and Jackie] were both ... making me feel like I could do it, not telling me, ‘Oh this is what we have to do for you we will start you at a different level.’ They were like, ‘You can do it, you can get through it,’ and then they did explain that there are modifications to every exercise ... of course, when I started, I would have to do those

modifications, but I would always work towards being able to do an exercise you know to its full movement. (Participant 316)

In summary, the instructors provided various forms of support, such as tangible support and emotional support to campers.

Theme #3: Increases in self-efficacy

Participants expressed their plight for in overcoming physical and emotional tasks throughout their experiences:

“Every time I go there I feel like I’m improving some, I feel like I’m challenging myself more so it’s all been very positive with the women...” (Participant 9)

“I remember at the beginning, when you first work out, the work outs are tough... regardless if you’ve been there one session or eight sessions, you are still getting a tough work out but when you first start and you are doing stuff and then the next week she asks you to do more difficult tasks that you wouldn’t have been able to do so easily in the first week, but had if she had given you an exercise in the first week that she gave in the second week, you might have been discouraged thinking you couldn’t do it but by the second week you have already built yourself up some to the point where you can do it so she does that and that is another way she and the trainers are knowledgeable, they know how to start of a new group and build them up to the point of each week they will be able to accomplish more and they will feel that sense of accomplishment and pride in knowing that they’ve gotten stronger in just a week’s

time training. Because I remember one of the women saying, ‘Wow, had we done this last week I don’t think I could have done it’... you could kind of see this pride of saying, ‘Hey I worked out this weekend and I have already gotten stronger.’”

(Participant 9)

“It makes you feel good when you feel like your body went above the 8 pound and then I thought, ‘Oh my God, I’m not going to be able to do this, but I could.’”

(Participant 4)

“The slight hill is ok, but when I get to that bigger hill I could easily allow that one to slow me down even more. And so I do try to mentally pull it on and then physically as well, because I know that once I get passed that, then I can kind of go back to that comfort zone where in my head I know, “ok it's a little bit more leveled and I know what I can do here.” That's sort of the way with the planks too I just know in that particular case I just take my mind someplace else, to the beach, to the mountain as I said before not even try to think about the fact that they are standing there with that little stopwatch and it’s just ticking by...” (Participant 103)

“At Christmas I did go for two weeks straight to the 5:30 am class, because it was the holidays and I wanted to get the earlier start to my day so that I would have more time to get more things done ...and even that it wasn’t brutal in the way that I thought it would be, ‘5:30... Oh golly to go to a 5:30 [class], that means you have to get up much earlier to get dressed to find enough clothes to put on, to stay warm through the

holidays.’ It was December, it was cold, but I don’t look at it with the drudgery that I did. I don’t look at it even with disdain the way I have begun to hear people talk about going to the gym. They don’t want to go to the gym. They don’t want to be there. They dread the treadmill. I used to think, ‘What is so bad about the treadmill that they don’t like,’ and...the few times I have been on one I don’t have the same attitude that they do about it because I do know that I can easily tell the way you are having the work treadmill that you working your body...I think probably the biggest thing for me is that I don’t look at the exercise as just a bad thing anymore.”

(Participant 103)

“I am surviving it, in spite of the shin splints, in spite of the age and in spite of the weight when I started, which I have lost some weight through all of this and ‘Clean Eating’ ... I would say yes, ‘surviving.’ I am surviving it, I am doing it...getting there, getting to where I want to be. I’m further along now than I was when I started and I’m not through yet, I still want to go further with it and I still want to get stronger in my arms and I want to get a little bit more endurance with my running.”

(Participant 103)

In summary, participants expressed their strategies for setting short-term goals to conquer challenges and ultimately reach long-term goals.

Theme #4: Increase in health and exercise knowledge

Learning from instructors. The instructors in the program served as a wealth of information regarding nutrition and exercise modifications:

“I like them, they’re good. They just... to me, the thing that I like about them is, like I said, they always talk about form. There’s some people, they don’t have good form, and I can see it.” (Participants 7)

“I turn 40 this year so ... that is kind of a cool thing to be able to say I accomplished before I turned 40, so I said, ‘Ok I will do it’ ... Since I signed up one of the other trainers (she’s a new trainer), she has actually been helping me train and she has been fantastic and we have been going out on long runs.” (Participant 9)

“Well, just the fact that...they give so many different options for women there is not this feeling that, ‘Ok, you need to do this or nothing.’ They give different level of workouts and modifications for every work out. They know when someone is struggling with something they can give them a modification to do. They know if someone has an injury, they possibly shouldn’t be doing a certain type of workout. ...They typically remember if someone has been going there for a while they remember who has the injuries...like sore shoulders or problems with their wrists so that too and in other ways they show that they care because they remember those important things and they say, ‘Oh, so and so you need to do this modification to be able to... or do another workout to be able to work out the same muscle that is not

going to aggravate an injury.’ So they are very knowledgeable about that.”

(Participant 9)

“Well, she always pointed out, when she gave a new exercise and realized that it would be bad for some of our knees, she would always show, you didn’t have to ask, she would show the modification” (Participant 4)

“They give you that education and Bethany she also does on the side her biggest loser competitions which focuses more on the nutrition... [*child interrupts*]... So her biggest loser competitions also give you more education about nutrition and what to eat and she practices clean eating so you get to learn about that” (Participant 316)

“I do think that they do a good job, about instructing you and how to do it, from my stand point I think that I receive it well and from the most part, and doing it exactly the way they want me to. And let's talk about them going around and telling you, lower your booty, put your legs further apart, so that they're in line with you, so I think they do an excellent job instructing me” (Participant 103)

In summary, the participants benefitted from the knowledge of the instructors and recognized them as competent authoritative figures.

Learning from social media. The lead instructor used social media as a platform for sharing recipes, workout strategies, and journal articles related to topics mentioned in sessions:

“Now one thing I do want to tell you, if you like her Boot Camp or Fit Camp page, she does post links to all sorts of nutritional articles. So, if you follow her on Facebook, you will see all the stuff that she does post links to and she’ll talk about it, you know, and that kind of thing.” (Participant 7)

“I’m on Facebook right now a lot more than normal because of having to post those meals in every day” (Participant 7)

“Yeah you just have to...you go on the website and you have to post your meals every day. And if you’re going out there pigging out on you know brownies and that kind of thing, she’s going call you out on it. She’ll go, ‘Okay, what was up with this?’” (Participant 7)

“Well Facebook, she just put together a group of women, a group for the women that were running the half or the 5k, it didn’t matter, and basically...people are letting each other know when they are going out to run, if anyone wants to join them they are welcome to and people are posting when they are finishing their runs or how many miles they ran or the times they ran. Its just something people can congratulate them on their successes and then there is also this encouragement people also post articles on things that might help them...foods to eat” (Participant 9)

“They post articles about, you know, types of shoes... what types of shoes are best for certain people, even something as simple as how to lace or tie your shoes properly so

that, you know, they are not coming undone during a run. There have been a lot of different articles that they have put up, a lot of helpful information that people have been posting” (Participant 9)

“Oh, they were good, that’s really good, I’m not even working out but I still enjoy her Facebook messages, I still follow along with that, I’m trying some muscle remedies and I’m helping so I can get my knees in shape and I could join another one. I’d like to go back.” (Participant 4)

In summary, the instructors and campers post uplifting and valuable information that allows them to fortify their relationships outside of exercise sessions.

Theme #5: Exercise variety increased enjoyment

Participants expressed favorable opinions towards the instructor’s abilities to recognize their need a variety of workouts. They preferred knowing that each workout would be different from the previous session:

“I like it because every work out is different, so I can’t anticipate the torture of the day,…” (Participant 48)

“Yeah, so today well each workout is different especially you know it depends on if there is usually it is Bethany but today it was a different trainer so I like that I can't anticipate I don't get bored because each time is different. So today was like a really hard workout but I still loved it.” (Participant 48)

“For me, the challenge is every day and I get a challenge every day just from going to “Bethany’s Fitness Camp” because... even though you do some of the work outs, you know, you’ll do the same exercises throughout the week, I never ever go to fit camp and get done feeling like, ‘That wasn’t that good of a work out, I didn’t challenge myself... it wasn’t hard for me.’” They are always difficult work outs, no matter how long I have been doing it, and I’ve been going for a year, I still find myself being challenged with the work outs and just the way... the order they put the exercises... I’ve watched my weight from the beginning” (Participant 9)

“...It’s completely the routine, even though you know, like say every Monday was a cardio but everything about it was different. Never got old, never knew what to expect, new exercises all the time” (Participant 4)

“She just has such a great combination of work outs that I think it doesn’t... compare to the gym. The gym, you pretty much have to come up with your own work out, which you can do, but it is always nice to have a trainer there that knows what they are doing, that knows what muscle groups to work on.” (Participant 9)

CHAPTER 4

DISCUSSION

The present study attempted to identify the effect of a six-week fitness camp intervention on female participants' perceptions of social physique anxiety, social support, and barriers and benefits to exercise. It was hypothesized that overall, there would be a significant difference in pre-test scores and post-test scores in the measurements of the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale. Moreover, it was expected that when comparing participants' scores on the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale, the number of perceived barriers to exercise would significantly decrease over the course of the six-week fitness camp intervention. Additionally, it was hypothesized that the number of perceived benefits would significantly increase while social physique anxiety scores would significantly decrease over time. Finally, perceptions social support would significantly increase in the group fitness setting. For those who met or did not meet ACSM recommendations for physical activity, there would be a significant difference in participants' change scores from the Social Physique Anxiety Scale, Exercise Benefits and Barriers Scale, and the Social Support Scale.

Overall, the quantitative results of the study did not reveal any significant changes between the pre-test and the post-test scores on the Social Physique Anxiety Scale, or the Social Support Scale. However, there was a significant difference between the scores of the Benefits and Barriers to Exercise scores between pre-testing and post-testing periods. Additionally, there were no significant differences between those who met and those who did not meet the exercise recommendations forwarded by the American College of Sports Medicine (ACSM, 2013).

Despite a lack of significant differences between groups of participants, implications and precedents were set forth by the present research study.

The results of the study may have been affected by the longitudinal nature of the methods. The duration of the study allowed for a significant number of participants to drop out of the study. In the initial pre-testing periods of the study, a total of 210 participants completed survey packets. Over time, 62 of the participants returned to the fitness camp intervention. An online discount opportunity provided an incentive to join the fitness camp, with adherence depending on the participant's level of emotional investment in the activity.

Currently, there is not longitudinal research regarding the use of discount coupon in exercise adherence. However, Maehr and Braskamp's (1986) personal investment theory delineates how an individual determines whether their perceived value of time, effort, and monetary investments are worth adhering to exercise participation. The three portions of the investment include Meaning, Antecedents to Meaning, and Personal Investment. The segment of Meaning encompasses motivators such as personal experience, information, social expectations, task design, and socio-cultural context. Antecedents to Meaning play more of a secondary role in contemplating exercise activity. They include performance situations, personal experiences, information, and age/stage in life, and socio-cultural contexts contribute to an individual's view of the world. Personal Incentives, like social incentives, ego incentives, health incentives, task incentives, and extrinsic rewards appraise the costs and benefits of their behaviors. Lastly, the evaluation of costs and benefits will lead to a decision to participate in exercise activity. The participants in the present study may not have believed that their investments of time, effort, and money are worth more than their commitment to exercise.

The average for the change in Exercise Barriers was -1.36. Due to reverse scoring, the change in scores may be interpreted as a decrease in the number of perceived barriers to exercise and physical activity. The scores of the scale may range from 43-172, with higher scores indicating a participant's more positive outlook on the fitness activity. In general, participants were moderately optimistic about the exercise activity, with a mean pre-test score of 74.68 and a mean post-test score of 70.91. Although the scores decreased from before and after the intervention, the difference was not significant.

Between the first and final week of the intervention, participants' perception of barriers to exercise decreased from a mean score of 28.55 to a mean score of 27.09.

The results of the current study parallel those of the research conducted by Heitmann, Owen, Crawford, Bauman, and Sallis (2003). Participants in this study who reported high enjoyment and preference for physical activity were more likely to report greater levels of exercise activity than those who did not. Participants who reported cost, the weather, and personal barriers to physical activity were less likely to engage in physical activity. This study is important because the results can be utilized to identify individual and environmental influences on physical activity and perhaps predict the likelihood of sedentary behavior in a given population.

Similarly, Nahas and Goldfine (2003) concluded that the perception of benefits and barriers to exercise could impact physical activity levels. In a study conducted by Vaughn (2009), the females that perceived fewer barriers and more perceived benefits to exercise were more likely to sustain a more physically active lifestyle compared to females who identified a

greater number of barriers and a lesser number of benefits. Collectively, these results may suggest that surmounting barriers to exercise can contribute to exercise adherence in females.

Once participants have balanced their perceived benefits and barriers to exercise, they must assess other aspects of the fitness program that influence their adherence and enjoyment. The physical, sociocultural, and technological aspects of the environment may also affect the likelihood of a behavior and associating with a group (McGrath, 1984). In parallel with social cognitive theory, the influence of the physical environment was a main theme in understanding the holistic human experience (Bandura, 1977). A majority of the participants stated strong opinions about the environment of the fitness program, describing it as a pleasurable setting for physical activity. According to the participants' responses, the environment for the intervention was conducive to a positive exercise experience, providing participants with a chance to appreciate natural scenery.

Research has confirmed and documented the relationship between physical activity and psychological health, specifically affecting emotional states and stress (Byrne & Byrne, 1993). Evidence from Burgess' (1988) research suggests that a natural environment may play a substantial role in stress reduction and improvement of mood. Additionally, a theory known as the biophilia hypothesis explains that humans are predisposed to being attracted to outdoor settings that are reminiscent of the environment of our early ancestors (Wilson, 1984).

Beyond an individual's perception of a task, forming an identity as part of a group or environment is essential to complete a task (Bandura, 1977). Joseph McGrath's (1984) framework for group dynamics distinguishes the necessary factors to explain group activity. The first factor of successful group processing is group member interaction. The women of the fitness camp interact with one another by speaking, laughing, running, and working out together.

McGrath (1984) also states that five elements contribute to group interaction processes, including group structure, the given task/situation, the behavior setting, group member properties, and the environment. The differences in ability, age, personality, height, weight, religion, marital status, etc. may affect the synergy of the group by uniting or separating participants from the group. For instance, a 62 year-old participant described how her age difference from the other members of the group influenced her experience:

“Fay (age 66) and I have gotten to be close, and we usually trying to work out standing the side one another and kind of, we'll talk back and forth to one another.” (Participant 103)

McGrath (1984) explained that individuals who have experience, such as the women who completed numerous sessions, impact the entire group or new group members.

With the opportunity to establish social connections with other females, participants are more likely to engage in a group setting (Kovačova, Stejskal, Neuls, & Elfmark, 2011). Interaction between group members has been supported by social support survey in the quantitative portion of the survey. The measure addressed support from both friends and family. Scores could range from 0-20 for family and 0-16 for friends, with higher scores indicating a greater level of support from those in participants' lives. Scores from pre-tests and post-tests indicate an average of 9.80 and 9.28, respectively. Although support from family members appears to have decreased over time, the difference was not significant. In regards to friends, the average score was 8.64 in pre-tests and 9.27 in post-tests. Overall, participants scored 18.61 on pre-tests and 18.49 on post-tests. Question number nine in the Social Support scale, reading, “Do other kids tease you for not being good at physical activity or sports” was omitted from the study

due to the age of the population. Given that the ages of the participants ranged from 23-62 years old, they would not likely be in the presence of children while performing physical activity.

Similar to other studies involving assessing factors of exercise adherence and weight-loss (Herriot, Thomas, Hart, Warren, & Truby, 2008; Smith Barnes, Goodrick, Pavlik, Markesino, & Laws, 2007), Zin (2012) conducted a qualitative interview in search of factors contributing to exercise adherence in a workplace setting. The participants who were successful in weight-loss goals most commonly described the significance of peer support throughout their challenge. For the successful female participants, social support from family and friends contributed to their perpetuation of weight-loss habits.

Interviews from the qualitative portion of the study correspond to the evidence in Herriot et al.'s research. Examples include:

“The girls will run past you when you are running and they will say, ‘Good job,’ so you do get a lot of encouragement.” (Participant 103)

Baron, Kaufman, and Stauber (1969) claim that an individual's perception of the consequences of a behavior induces the likelihood of engaging in the behavior. Therefore, individuals are motivated by schedules of reinforcement, increasing the frequency of the behavior and the likelihood of receiving a reward (Estes, 1972). They are apt to perform for a schedule of reinforcement (Bandura, 1977). Thus, the participants in the fitness intervention are likely to continue attending sessions if they value the encouraging statements by their instructors and peers.

In addition to the perception of the surroundings, McGrath (1984) explains that the essence of the task/situation contributes to the nature of the group. The central essence of the task/situation to be fulfilled unites the members of the group. In the present study, the task of the

group is to reduce body fat, strengthen muscles, and increase endurance, stamina, strength, and flexibility while working out in a group setting. The task/situation. McGrath's work describes how members of a group are connected through a particular task. The task can be reached as members train together to reach individual goals and acquire the health benefits earned when completing the fitness program (McGrath, 1984) (See Figure 1).

The participants' views of themselves in a fitness setting contributed to their reported levels of social physique anxiety, which may affect their willingness to complete a task. Social physique anxiety scores did not significantly differ from before and after the six-week fitness camp interventions. However, there was a slight decrease (-.121) found while examining the overall change in scores from pre-testing and post-testing periods. With a score range possibility of 12 to 60, participants in the fitness camp intervention scored relatively low. Overall, the average score for pre-tests was 18.61 and post-tests was 18.49. The closer a score is to 12, the lower the amount of social physique anxiety a participant reported. Although there was not a significant difference in the average scores from before and after the six-week intervention, a decreasing trend in these scores did occur over time.

The results of the present study are comparable to the findings of others where individuals in the study reported social physique anxiety in in public exercise settings (Crawford & Eklund, 1994). In Spink's (1992) work, females who reported high levels of social physique anxiety did not prefer exercising in open venues. This may be explained by the participants' perceived level of vulnerability to others' judgments in a public setting. Crawford and Eklund (1994)'s correlation between high levels of social physique anxiety with few perceived benefits of physical activity may explain program adherence in the current study.

According to Yin (2001), mixed gender exercise settings may influence females to report higher levels of social physique anxiety while in the presence of males. Yin investigated participants' attitudes towards female-only fitness centers versus mixed gender fitness centers. Compared to females who belonged to mixed gender fitness centers, females who attended female-only centers reported higher levels of social physique anxiety. The difference in reported levels implies that females with greater social physique anxiety recognize their gyms as safe havens from being assessed by males on their physical appearance. Yin's findings may explain the levels of social physique anxiety in the current study.

Although the lack of a male presence in the fitness camp was not addressed as a major theme in the qualitative portion of the study, the participants addressed aspects of the physical environment. In accordance with the evidence for high social physique anxiety in confined fitness settings, the interviews with participants revealed that females feel more comfortable engaging in the open, outdoors of nature, than facing judgment in a gym setting.

Each of the previously described factors contributes to an individual's level of confidence to achieve personal objectives throughout the program. The certainty to achieve such obstacles is a direct result of an individual's perception of their ability. Although self-efficacy was not quantitatively measured in the study, the tenant of social cognitive theory was identified in the qualitative aspects. Four out of six interviewed participants in the study described feelings of self-efficacy as they approached obstacles in fitness. For example, one of the participants explained her approach for completing the mile run, mentally and physically attacking on one section of the hill at a time.

The confidence displayed by participant regarding running a hill is comparable to the tenants of Bandura's (1977) social cognitive theory of behavior change. The model mentions that an individual's perceived level of self-efficacy and their enjoyment can prompt types and conditions of physical activity. Furthermore, self-efficacy can affect an individual's conjectures of success and willingness to attempt overcoming difficult obstacles. The conjectures of success dictates the amount of exertion an individual will put forth towards perceived barriers. The individual will be more aggressive in their attempts to overcome obstacles if they have a high amount of perceived self-efficacy and enjoyment towards the behavior. Furthermore, the likelihood of long-term exercise behaviors can be forecasted an individual's affective response to exercise (Williams, Dunsiger, Ciccolo, Lewis, Albrecht, & Marcus, 2008). The self-efficacy affective response relationship may explain the thought structure of participants who are intent on overcoming obstacles, such as running a hill in the fitness intervention.

Limitations and Implications for Practice and Research

Despite the theoretical and empirical evidence for the current investigation, there may be alternative explanations for the outcomes of the study. For instance, data collection for the study was not tailored to those individuals who did not complete a full six-week session before attending the post-session fitness evaluation. By collecting survey information from those that did not continue with the fitness camp, the researcher could have more confidently identified factors that did not foster a longer exercise experience. The interviews from the sample population may not accurately represent the views of each of the participants or the general population.

The sample population in the study was comprised of an overwhelming majority of participants, 85.5%, reporting as White non-Hispanic, with 11.3 %Black, and less than 1% in minority categories. The results of the study could be generalized to more females in the United States if data was collected from various geographic areas with a more ethnically diverse sample population.

Findings by Dishman and Buckworth (1997) indicate that as much as 50% of individuals who engage in an organized fitness regimen will quit within a six-month period. The findings of the current study aim to identify psychosocial factors contributing to a positive exercise program and ultimately increase adherence. It was found that the experience included facets outside of the fitness session, such as knowledge in the form of social media, promote interest and commitment to healthful living. As indicated by Bandura's social cognitive theory, specifically social support and barriers to exercise, a researcher could analyze social support and benefits and barriers to exercise to determine whether the relationship is significant. The various measurements and results of the study can be used in the future to create a similar program. However, the program may benefit from interventions such as face-to-face goal-setting and psychological skills training.

In future studies, it may be beneficial for the researcher to collect data from more participants to increase the power of the study. If the number of participants is increased from the initial study, there is a greater chance that the difference between pre and post-test scores will be statistically significant.

REFERENCES

- Alcock, J.E. Carment, D.W., & Sadava, S.W. (1991). *A textbook of social psychology* (2nd ed.). Scarborough, ON: Prentice Hall.
- American College of Sport Medicine (2011). American College of Sport Medicine's Position Stand on Physical Activity and Weight Loss. *Medicine Science and Sports Exercise*, *41*, 459-471.
- Annesi, J. J. (2004). Relationship of perceived health and appearance improvement, and self motivation, with adherence to exercise in previously sedentary women. *European Journal of Sport Science*, *4*, 1-13.
- Annesi, J.J., Unruh, J.L., Marti, C.N., Gorjala, S., & Tennant, G. (2010). Effects of the Coach Approach intervention on adherence to exercise in obese women: assessing mediation of social cognitive theory factors. *Res Q Exerc Sport*.
- Ballentine, L. W., & Ogle, J. P. (2005). The making and unmaking of body problems in *Seventeen* magazine, 1992-2003. *Family and Consumer Sciences Research Journal*, *33*, 281-307.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Baron, A., Kaufman, A., & Stauber, K. A. (1969). Effects of instructions and reinforcement-feedback on human operant behavior maintained by fixed-interval reinforcement. *Journal of the Experimental Analysis of Behavior*, *12*, 701-712.
- Barton, S. B., Walker, L. L., Lambert, G., Gately, P. J., & Hill, A. J. (2004, February). Cognitive change in obese adolescents losing weight. *Obesity Research*, *12*(2), 313-319.
- Bissell, K. L., & Peiqin, Z. (2004). Must-See TV or ESPN: Entertainment and Sports Media Exposure and Body-Image Distortion in College Women. *Journal Of Communication*, *54*(1), 5-21.

- Bordo, S. (1993). *Unbearable weight: Feminism, Western culture, and the body*. Berkeley, CA: University of California Press.
- Boyd, M. P., Weinmann, C., & Yin, Z. (2002). The Relationship of Physical Self-Perceptions and Goal Orientations To Intrinsic Motivation for Exercise. *Journal Of Sport Behavior*, 25(1), 1.
- Burgess J, Harrison C M and Limb M. (1988). People, Parks and the urban green: A study of popular meanings and values for open spaces in the city. *Urban Studies* 25: 455-73
- Burke, S. M., Carron, A. V., Eys, M. A., Ntoumanis, N., & Estabrooks, P. A. (2006). Group versus individual approach? A meta-analysis of the effectiveness of interventions to promote physical activity. *Sport and Exercise Psychology Review*, 2, 13-29.
- Burke, S. M., Shapcott, K. M., Carron, A. V., Bradshaw, M. H., & Estabrooks, P. A. (2010). Group Goal Setting and Group Performance in a Physical Activity Context. *International Journal Of Sport And Exercise Psychology*, 8(3), 245-261.
- Byrne, A., & Byrne, D. G. (1993). The effect of exercise on depression, anxiety, and other mood states: A review. *Journal of Psychosomatic Research*, 37, 565–574.
- Carraça, E. V., Silva, M. N., Markland, D., Vieira, P. N., Minderico, C. S., Sardinha, L. B., & Teixeira, P. J. (2011, July 18). Body image change and improved eating self-regulation in a weight management intervention in women. *International Journal of Behavioral Nutrition and Physical Activity*, 8(75).
- Carron, A. V., Hausenblas, H. A., & Mack, D. (1996). Social influence and exercise: A meta-analysis. *Journal of Sport and Exercise Psychology*, 18, 1-16.
- Cash, T. F. (2000). *The Multidimensional Body-Self Relations Questionnaire Users' Manual*.

- Cash, T.F. (2002). The management of body image problems. In: Fairburn CG, Brownell KD, eds. *Eating Disorders and Obesity. A Comprehensive Handbook*, 2nd ed. New York: The Guilford Press; pp. 599–603.
- Cash, T. F., & Smolak, L. (2011). *Body image, second edition: A handbook of science, practice, and prevention* (2ndnd ed.). N.p.: The Guilford Press.
- Centers for Disease Control and Prevention. (2005). Trends in leisure time physical inactivity by age, sex, and race/ethnicity: United States. *Morbidity and Mortality Weekly Report*, 54, 991–994.
- Chung, Y. B., & Baird, M. K. (1999). Physical exercise as a counseling intervention. *Journal of Mental Health Counseling*, 21, 124-135.
- Comstock, G., & Scharrer, E. (2007). *Media and the American child*. Burlington, MA: Academic Press.
- Cox, C. L., Martin Ginis, K. A., & Petruzzello, S. J. (2006). *The psychology of exercise: Integrating theory and practice* (2ndnd ed.). Scottsdale, AZ: Holcomb Hathaway, Publishers, Inc.
- Crawford, S., & Eklund, R. C. (1994). Social physique anxiety, reasons for Social physique anxiety, reasons for exercise, and attitudes toward exercise settings. *Journal of Sport & Exercise Psychology*, 16(1), 70-82.
- Czech, D.R., Wrisberg, C.A., Fisher, L.A., Thompson, C.L., and Hayes, G. (2004). The experience of Christian prayer in sport – An existential phenomenological investigation. *Journal of Psychology and Christianity*, 2, 1-19.
- Dietz, W.H. (2004). Overweight in childhood and adolescence. *New England Journal of Medicine*, 350, 855-857.
- Dishman, R.K., & Buckworth, J. (1997). Adherence to physical activity. In W.P. Morgan (Ed.), *Physical activity and mental health* (pp. 63–80). Washington, DC: Taylor & Francis.

- Estes, W. K. (1972). Reinforcement in human behavior. *American Scientist*, 60, 723-729.
- Eyler, A. A., Brownson, R. C, King, A. C, Brown, D., Donatelle, R. J., & Heath, G. (1997). Physical activity and women in die United States: An overview of health benefits, prevalence, and intervention opportunities. *Women & Health*, 26, 27-49.
- Fallon, E. A., & Hausenblas, H. A. (2005). Media images of the 'ideal' female body: Can acute exercise moderate their psychological impact?. *Body Image*, 2(1), 62-73.
- Fischer, C. T. (2009). Bracketing in qualitative research: Conceptual and practical matters. *Psychotherapy Research*, 19(4/5), 583-590.
- Fisher, K. J., Pickering, M. A., & Li, F. (2002). Healthy aging through active leisure: Design and methods of shape - A randomized controlled trial of a neighborhood-based walking project. *World Leisure*, 1, 19-28.
- Focht, B.C., Hausenblas, H.A. (2003). State anxiety responses to acute exercise in women with high social physique anxiety. *Journal of Sport and Exercise Psychology*, 25, 123–144.
- Friedman, K. E., Reichmann, S. K., Costanzo, P. R., & Musante, G. J. (2002, January). Body image partially mediates the relationship between obesity and psychological stress. *Obesity Research*, 10(1), 33-41.
- Garcia, A., & King, A. (1991). Predicting long-term adherence to aerobic exercise: A comparison of two models. *Journal of Sport & Exercise Psychology*, 13, 394-410.
- Giles-Corti, B., & Donovan, R.J. (2003). Relative influences of individual, social environmental, and physical environmental correlates of walking. *American Journal of Public Health*, 93, 1583-1589.

- Glanz, K., & Rimer, K. B., Lewis, F. (2002). How individuals, environments, and health behavior interact. In K. Glanz, K. Rimer, & F. Lewis (Eds.), *Health behavior and health education* (165-184). San Francisco, CA: John Wiley & Sons, Inc.
- Godin, G. & Shephard, R.J. (1985). A simple method to assess exercise behavior in the community. *Canadian Journal of Applied Sport Sciences*, *10*, 141-146.
- Haskell, W. L. Dose-response issues from a biological perspective. In: *Physical Activity, Fitness, and Health*. C. Bouchard, R. J. Shephard, and T. Stephens (Eds.). Champaign, IL: Human Kinetics, 1994, pp. 1030-1039.
- Heitmann, J., Owen, N., Crawford, D., Bauman, A., & Sallis, J. F. (2003). Physical activity and sedentary behavior: A population-based study of barriers, enjoyment, and preference. *Health Psychology*, *22*, 78–88.
- Henry, M., Sanborn, C. F., Senne, T. A., & Nichols, D. L. (2011). Influences on Exercise and Sports Participation in Female College Students. *TAHPERD Journal*, *79*(2), 8-11.
- Hoffman, T., Czech, D. R., Blazo, J., Zwald, D., Metzler, J. (2009). Preferred Coaching Qualities in NCAA Division I College Athletes: A Qualitative Analysis of Basketball Players from the Millennial Generation. *Applied Research in Coaching and Athletics Annual*, *1*, 140-178.
- Hohlstein, L.A., Smith, G.T., & Atlas, J.G. (1998). An application of expectancy theory to eating disorders: Development and validation of measures of eating and dieting expectancies. *Psychological Assessment*, *10*, 49–58.

- Hoke, M. M., & Timmerman, G. M. (2011). Transtheoretical model: potential usefulness with overweight rural Mexican American women. *Hispanic Health Care International*, 9(1), 41-49.
- Huberty, J.L., Ransdell, L.B., Sigman, C., Flohr, J.A., Schult, B., Grosshans, O., and Durrant, L. (2008). Explaining long-term exercise adherence in women who complete a structured exercise program. *Research Quarterly for Exercise and Sport*, 79(3), 374-384.
- Johnson, C. A., Corrigan, S. A., Dubbert, P. M., & Gramling, S. E. (1990). Perceived barriers to exercise and weight control practices in community women. *Women & Health*, 16(3-4), 177-191.
- Katula, J.A., McAuley, E., Mihalko, S.L., & Bane, S.M. (1998). Mirror, mirror on the wall ... exercise environment influences on self-efficacy. *Journal of Social Behavior and Personality*, 13, 319-332.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H. Powell, K. E., et al. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22, 73-107.
- Kováčová, L., Stejskal, P., Neuls, F., & Elfmark, M. (2011). Adherence to the aerobics exercise program in women aged 40 to 65. ADHERENCE KE CVIČEBNÍMU PROGRAMU AEROBIKU U ŽEN VE VĚKU 40 AŽ 65 LET. *Acta Universitatis Palackianae Olomucensis. Gymnica*, 41(2), 55-63.
- Krueger, R. A. (1998). *Developing questions for focus groups*. Thousand Oaks, CA: Sage Publications.
- Kennedy, G. J. (2007). Exercise, aging, and mental health. *Primary Psychiatry*, 14, 23-28.
- Krane, V. V., Waldron, J. J., Michalenok, J. J., & Stiles-Shipley, J. J. (2001). Body image concerns in female exercisers and athletes: a feminist cultural studies perspective. *Women In Sport & Physical Activity Journal*, 10(1), 17-54.

- Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of child and adolescent overweight and obesity. *Pediatrics* 2007;120:S193–S228.
- Leslie, E. Owen, N., Salmon, J., Bauman, A., Sallis, J.F., & Lo, S.K. (1999). Insufficiently active Australian college students: Perceived personal social, and environmental influences. *Preventative Medicine*, 28, 20-27.
- Levine, M. P., & Smolak, L. (2006). *The prevention of eating problems and eating disorders: Theory, research, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Maehr, Martin L. and Larry A. Braskamp (1986), "Chapter 3: Toward a Theory of Personal Investment," in *The Motivation Factor: A Theory of Personal Investment*, Lexington, MA: Lexington Books, 45-60.
- McAuley, E., & Blissmer, B. (2000). Self-efficacy determinants and consequences of physical activity. *Exercise and Sport Science Reviews*, 28, 85–88.
- McAuley, E., Doerksen, S. E., Morris, K. S., Moti, R W, Hu, L., Wojcicki, T. R Rosengren, K R. (2008). Pathways from physical activity to quality of life in older women. *The Society of Behavioral Medicine*, 36, 13-20.
- McGrath, J.E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice Hall.
- Mendelson, B. K., Mendelson, M. J., & White, D. R. (2001). Body-Esteem Scale for Adolescents and Adults. *Journal Of Personality Assessment*, 76(1), 90-106.
- Myers, J. E., & Sweeney, T. J. (Eds.). (2005). *Counseling for wellness*. Alexandria, VA: American Counseling Association.
- Nahas, M.V., Goldfine, B. (2003) Determinants of physical activity in adolescents and young adults: The basis for high school and college physical education to promote active lifestyles. *Phys.*

Educator, 60, 42-57.

National Institutes of Health, National Heart, Lung, and Blood Institute. [Disease and Conditions Index:](#)

[What Are Overweight and Obesity?](#) Bethesda, MD: National Institutes of Health; 2010.

Netz, Y, Wu, M., Becker, B. J., & Tenenbaum, G. (2005). Physical activity and psychological well-being in advanced age: A meta-analysis of intervention studies. *Psychology and Aging*, 20, 272-284.

Patton, M. (2002) *Qualitative research and evaluation methods*, Ed. 3. Sage Publications, Inc.: Thousand Oaks, CA.

Patton, M. (1990). *Qualitative evaluation and research methods* (pp. 169-186). Beverly Hills, CA: Sage.

Prochaska, J.J., Rodgers, M.W., and Sallis, J.F. (2002). Association of parent and peer support with adolescent physical activity. *Research Quarterly for Exercise and Sport*, 73, 206-210.

Rejeski, W. J. Dose-response issues from a psychosocial perspective. In: *Physical Activity, Fitness, and Health*. C. Bouchard, R. J. Shephard, and T. Stephens (Eds.). Champaign, IL: Human Kinetics, 1994, pp. 1040-1055.

Schrop, S., Pendleton, B. F., McCord, G., Gil, K. M., Stockton, L., McNatt, J., & Gilchrist, V. J. (2006). The Medically Underserved: Who Is Likely to Exercise and Why?. *Journal Of Health Care For The Poor And Underserved*, 17, 276-289.

Sechrist, K. R., Noble Walker, S., & Pender, N. J. (1987). Development and psychometric evaluation of the exercise benefits/barriers scale. *Research in Nursing and Health*, 10, 357-365.

Sharma, M., & Romas, J. A. (2012). *Theoretical foundations of health education and health promotion* (2ndnd ed.). Mississauga, Canada: Jones & Bartlett Learning.

- Spink, K. S., & Carron, A. C. (1992). Group cohesion and adherence in exercise classes. *Journal of Sport and Exercise Psychology, 14*, 78–86.
- Stice, E., Schupak-Neuberg, E., Shaw, H.E., & Stein, R.I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. *Journal of Abnormal Psychology, 103*, 836–840
- Thompson, J., & Stice, E. (2001). Thin-Ideal Internalization: Mounting Evidence for a New Risk Factor for Body-Image Disturbance and Eating Pathology. *Current Directions In Psychological Science* (Wiley-Blackwell), 10(5), 181.
- Thompson, J.K., Heinberg, L.J., Altabe, M.N., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., & Williamson, S. (2000). The effect of exercise on body satisfaction and self-esteem as a function of gender and age. *Sex Roles, 43*, 119-127.
- Tiggemann, M., & Lynch, J. E. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology, 37*, 243-253.
- Troiano, R. P., Berrigan, D., Dodd, K. W., Mâsse, L. C., Tilert, T., & McDowell, M. (2008). Physical activity in the United States measured by accelerometer. *Medicine & Science in Sports & Exercise, 40*, 181–188.
- Trujillo, K. A. (2004). Age Differences in Reasons for Exercising. *Current Psychology, 22*(4), 348.
- Troped, P. J., & Saunders, R. P. (1998). Gender differences in social influence on physical activity at different stages of exercise adoption. *American Journal Of Health Promotion, 13*(2), 112-115.

- U.S. Department of Health and Human Services. (1996). Physical activity and health: A report of the Surgeon General. Atlanta, GA: Centers for Disease Control and Prevention.
- Vartanian, L. R., & Shaprow, J. G. (2008). Effects of Weight Stigma on Exercise Motivation and Behavior A Preliminary Investigation among College-aged Females. *Journal Of Health Psychology, 13*(1), 131-138.
- Vaughn, S. 2009, Factors influencing the participation of middle-aged and older Latin-American women in physical activity: a stroke-prevention behavior. *Rehabilitation. Nursing. 34*, 17-23.
- Wertheim, E. H., Paxton, S. J., & Blaney, S. (2004). Risk Factors for the Development of Body Image Disturbances. In J. Thompson, J. Thompson (Eds.) , *Handbook of eating disorders and obesity* (pp. 463-494). Hoboken, NJ US: John Wiley & Sons Inc.
- White, J. L., Ransdell, L. B., Vener, J., & Flohr, J. (2005). Factors related to physical activity adherence in women: Review and suggestions for future research. *Women and Health, 41*, 123–148.
- Williams, D.M., Dunsiger, S., Ciccolo, J.T., Lewis, B.A., Albrecht, A.E., & Marcus, B.A. (2008). Acute affective response to a moderate-intensity exercise stimulus predicts physical activity participation 6 and 12 months later. *Psychology of Sport and Exercise, 9*(3), 231–245.
- Wilson VanVoor, C. R., & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology, 3*(2), 43-50.
- Yin, Z. (2001), Setting for exercise and concerns about body appearance of women who exercise. *Perceptual Motor Skills, 93*, 851-855

Zhu, W., Timm, G., & Ainsworth, B. (2001). Rasch calibration and optimal categorization of an instrument measuring women's exercise perseverance and barriers. *Research Quarterly For Exercise & Sport*, 72(2), 104-116.

Zinn, C. (2012). Using formative work to enhance a workplace weight loss maintenance intervention: Balancing what employees want and what they need. *Nutrition & Dietetics*, 69(4), 265-271.

Tables and Figures

Table 1
Wilcoxon Signed Rank Test

	Post Social Support-Pre Social Support	Post Social Physique Anxiety – Pre Social Physique Anxiety	Post Benefits and Barriers – Pre Benefits and Barriers	Post Benefits – Pre Benefits	Post Benefits – Pre Benefits
Z	-.252	-1.276	-2.202	-1.788	-2.268
Asymp. Sig (2- Tailed)	.801	.202	.028**	.074**	.023**

** Result is statistically significant, $p \leq .05$

Table 2
Mann-Whitney U Tests

	Met ACSM Recommendations	N	Mean Rank	P- Value
Change in Social Support	Did Not Meet Recommendations	10	25.45	
	Met Recommendations	41	26.13	.896
Change in Social Physique Anxiety	Total	51		
	Did Not Meet Recommendations	12	24.42	
Change in Exercise Benefits	Met Recommendations	48	32.02	.155
	Total	60		
Change in Exercise Barriers	Did Not Meet Recommendations	11	36.41	
	Met Recommendations	48	28.53	.168
Change in Exercise Barriers	Total	59		
	Did Not Meet Recommendations	10	27.50	
Change in Exercise Barriers	Met Recommendations	47	29.32	.752
	Total	57		

Table 3

Increase in Health and Exercise Knowledge

- Learning from instructors
- Learning from social media

Social Support from the Fitness Camp

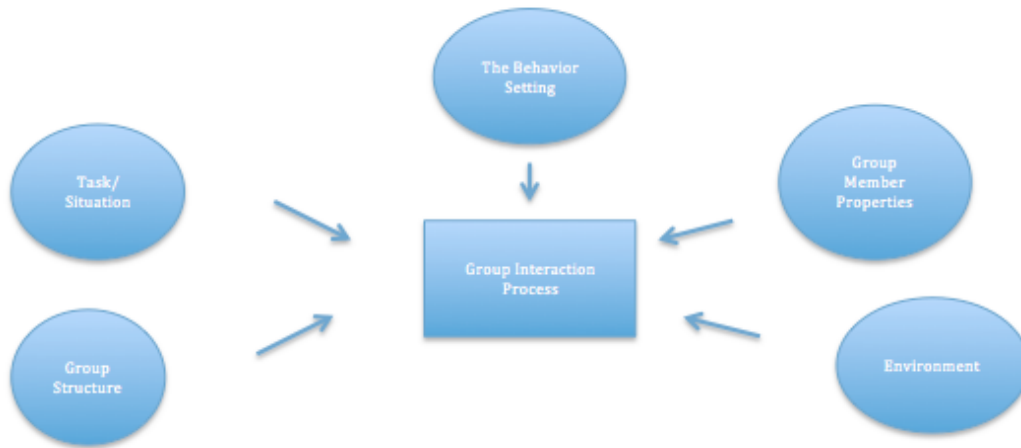
- Encouraging support from campers
- Cohesion among the members of the fitness camp
- Instructor support

Exercise Variety Increases Enjoyment

The Outside Environment of the Fitness Camp

Increases in Self-Efficacy

Figure 1



(McGrath, 1984)

APPENDIX A

RESEARCH QUESTIONS, DELIMITATIONS, LIMITATIONS, ASSUMPTIONS, AND DEFINITIONS

Research Questions/Research Hypotheses

What is the effect of the fitness camp intervention on female participants on social physique anxiety, social support, and barriers and benefits to exercise?

Are there significant differences in scores on social physique anxiety, social support, and barriers and benefits to exercise between women who met and did not meet the ACSM's recommendations for physical activity?

Overall, there will be a significant difference in pre-test scores and post-test scores in the measurements of Benefits and Barriers to Exercise, Social Support Scale, and the Social Physique Anxiety Scale.

What are the common experiences, opinions, feelings, and knowledge pertaining to participants' experiences in a fitness camp exercise program?

Limitations

Despite the researcher's efforts to increase the integrity of the study and the care used to select the most useful tools, measurements and samples, there were limitations to the study. There are several threats to internal and external validity within the study. One of the major concerns of the study was the generalizability of the study. The individuals asked to take part in

the study were chosen because they are part of a specialized population. There was no randomization to the study. The females are placed into one of the four measured segments based on their individual judgment of availability. Some participants may also be registered for more than one session; however, their data will only be collected from the first session that they complete in the four segment span. The participants must be at a level of socioeconomic status that allows them to sign up for the program. Also, the women will be from one geographic location. Females from other parts of the United States may foster different beliefs about their body image, perceived barriers to exercise, and frequency of exercise behaviors. Given that the participants will be issued a pre-test and a post-test, there exists a risk for reactive effects of testing. The participants' scores on the Multidimensional Body-Self Relations Questionnaire (MBSRQ) and the Exercise Benefits/Barriers Scale (EBBS) may have changed as a result of some other influence besides the intervention.

Previous experience may alter the results of the study. It is understood that the participants with previous experience in the boot camp may have higher levels of self-efficacy than those participants who are brand new to the program. However, this information was pertinent to the qualitative portion of the study when collecting interview information from the participants. Maturation may have occurred within the participants given that the study is proposed to last for a six-week period. Given the duration of the study, there is also a potential risk of experimental mortality. Participants' data may be removed from the study if they drop out of the program due to injury. The researcher will not be able to control the frequency and magnitude of exercise behaviors outside of the intervention.

Delimitations

There are features of the study that limit the scope of the inquiry. Such delimitations include the gender and age of the participants. The participants in the study will be selected because of their choice to enroll in the southeastern boot camp program.

Assumptions

The researcher assumed that the participants answered surveys honestly and to the best of their knowledge. Also, it is presumed that the females did not answer the surveys and/or interview questions in a way that may be appealing to the researcher. In terms of physical exertion, it is believed that the women performed to the best of their ability in each of the exercise sessions.

Definitions

There are various forms of physical activity in mentioned in the study. In accordance with the guidelines administered by the CDC, aerobic activity is any type of exercise that “gets you breathing harder and your heart beating faster. From pushing a lawn mower, to taking a dance class, to biking to the store – all types of activities count. As long as you're doing them at a moderate or vigorous intensity for at least 10 minutes at a time” (CDC, 2008).

When in an individual engages in moderate-intensity aerobic activity, they are “working hard enough to raise your heart rate and break a sweat. One way to tell is that they are be able to talk, but not sing the words to their favorite song.” Some examples of activities that require moderate effort include walking fast, water aerobics, riding a bike on level ground or with few hills, playing doubles tennis, and pushing a lawn mower” (CDC, 2008).

Vigorous-intensity aerobic activity refers to activities that raise heart rate, such as bicycle riding, basketball or running. If the individual working at this level, they won't be able to say

more than a few words without pausing for a breath. (ACSM, 2011).

Muscle-strengthening activities utilize the major muscle groups of the body (legs, hips, back, chest, abdomen, shoulders, and arms). The activities can be lifting weights, working with resistance bands, exercises that use your body weight for resistance (i.e., push ups, sit ups), heavy gardening (i.e., digging, shoveling), and yoga.

In order to effectively complete the quantitative measures issued in the study, participants need to be familiar with commonly used terms in the questionnaires. For instance, Hart, Leary, and Rejeski define social physique anxiety as a, “subtype of social anxiety that occurs as a result of the prospect or presence of interpersonal evaluation involving one’s physique” (Hart, Leary, & Rejeski, 1989, p. 96).

The participants in the study were placed in dosage exposure groups that either “met” or “did not meet” the ACSM’s weekly physical activity recommendations, as calculated by their recorded activity in the Godin’s Leisure Activity Questionnaire and their boot camp attendance sheets. The “met” group will include those participants who reached the ACSM’s weekly physical activity recommendations, as calculated by their recorded activity in the Godin’s Leisure Activity Questionnaire and their boot camp attendance sheets. The “met” group included those participants who reported the an amount of activity for physical activity that was grater than or equal to the recommendations of the ACSM for vigorous activity, moderate activity, or both levels of activity.

Prochaska et al. (2002) describes social support as instrumental and direct (such as transportation or payment of fees), emotional and motivational (such as encouragement or praise), or observational (modeling).

APPENDIX B
EXTENDED REVIEW OF LITERATURE

U.S. Department of Health and Human Services. (2008). *Physical Activity Guidelines for Americans*. Washington: DHHS; 2008.

The recommendations described in the *Physical Activity Guidelines for Americans* refer to the types and amounts of physical activity that offer imperative health benefits to Americans. The document explains two types of physical activity each week to improve an individual's health through aerobic and muscle-strengthening (moderate-intensity and vigorous-intensity).

Troiano, R. P., Berrigan, D., Dodd, K. W., Mâsse, L. C., Tilert, T., & McDowell, M. (2008).

Physical activity in the United States measured by accelerometer. *Medicine & Science in Sports & Exercise*, 40, 181–188.

The article describes how accelerometers are used to collect data from physical activity of adults and children in the United States. It identifies the high and low levels of physical activity of the individual depending upon their age groups. It also draws correlations to the amount of physical activity and the resulting lifestyle, which in turn influences quality of life.

Schrop, S., Pendleton, B. F., McCord, G., Gil, K. M., Stockton, L., McNatt, J., & Gilchrist, V. J.

(2006). The Medically Underserved: Who Is Likely to Exercise and Why?. *Journal Of Health Care For The Poor And Underserved*, 17, 276-289.

This article presents the statistic of the 15% of adults in the United States that partake in a regular exercise regimen. It also mentions the social groups, such as those of low socioeconomic

status and women, have even lower rates of exercise adherence. Among the 126 participants, the most important barriers were time, cost, and access to exercise facilities and equipment.

Fisher, K. J., Pickering, M. A., & Li, F. (2002). Healthy aging through active leisure: Design and methods of shape - A randomized controlled trial of a neighborhood-based walking project. *World Leisure, 1*, 19-28.

This article is an example of the use of Bandura's Social Cognitive Theory, which integrates self-efficacy, exercise behavior, and a supportive environment, can be used to the plan and initiate the Senior Health and Physical Exercise (SHAPE) project among a sedentary elderly population.

Heitmann, J., Owen, N., Crawford, D., Bauman, A., & Sallis, J. F. (2003). Physical activity and sedentary behavior: A population-based study of barriers, enjoyment, and preference. *Health Psychology, 22*, 78-88.

A mail-survey was sent out to 1,332 adults to identify correlations between physical activity and sedentary behavior with barriers, enjoyment, and exercise preferences. The individuals that claimed gaining high enjoyment and preference for physical activity were more likely to report greater levels of exercise activity than those who did not. Participants who reported cost, the weather, and personal barriers to physical activity were less likely to engage in physical activity.

This study is important because the results can be utilized to identify individual and environmental influences on physical activity and perhaps predict the likelihood of sedentary behavior in a given population.

Tiggemann, M., & Lynch, J. E. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology, 37*, 243-253.

The researchers examined body image across life span in cross-section of women 20-84 years of age. It was concluded that body dissatisfaction remained stable across the life span. However, the elements of self-objectification, habitual body monitoring, appearance anxiety, and disordered eating all significantly decreased as age increased in participants.

Huberty, J.L., Ransdell, L.B., Sigman, C., Flohr, J.A., Schult, B., Grosshans, O., and Durrant, L. (2008). Explaining long-term exercise adherence in women who complete a structured exercise program. *Research Quarterly for Exercise and Sport*, 79(3), 374-384.

This study aimed to identify the factors related to long-term physical activity adherence for women in a structured exercise regimen. The most commonly reported factor contributing to adherence was self-worth. Motivation, activity enjoyment, priorities, body image, ability to access support, and self-regulation skills influenced the self-worth of those who adhered to the program and those who decreased their level of physical activity.

Leslie, E., Owen, N., Salmon, J., Bauman, A., Sallis, J.F., & Lo, S.K. (1999). Insufficiently active Australian college students: Perceived personal social, and environmental influences. *Preventative Medicine*, 28, 20-27.

In this study, 2,729 male and female college students were asked to report their levels of physical activity. The participants were then placed in groups labeled as sufficiently or insufficiently active, as determined by estimates of energy expenditure (kcal/week. Also, participants reported personal factors (self-efficacy, job status, enjoyment), social factors (social support from family/friends), and environmental factors (awareness of facilities, gym membership). Participants who reported low social support from family and friends, lower enjoyment of activity, and not working were most likely to be insufficiently physically active.

Sharma, M., & Romas, J. A. (2012). *Theoretical foundations of health education and health promotion* (2nd ed.). Mississauga, Canada: Jones & Bartlett Learning.

The chapter in this book covers social cognitive theory and its roots in Bandura's social learning theory. It includes the theory's constructs and how it relates to health education and health promotion. It also describes how to use social cognitive theory to initiate and maintain a health behavior.

Kováčová, L., Stejskal, P., Neuls, F., & Elfmark, M. (2011). Adherence to the aerobics exercise program in women aged 40 to 65. ADHERENCE KE CVIČEBNÍMU PROGRAMU AEROBIKU U ŽEN VE VĚKU 40 AŽ 65 LET. *Acta Universitatis Palackianae Olomucensis. Gymnica*, 41(2), 55-63.

The researchers examined participants' reasons for decreasing physical activity levels in a long-term intervention program. Such reasons included health (55.17%), family (13.70%) and work (22.41%). Other reasons included psychological factors (8.62%)(motivational and personal characteristics), variety of physical activity options, and attractiveness of activity programs.

Friedman, K. E., Reichmann, S. K., Costanzo, P. R., & Musante, G. J. (2002, January). Body image partially mediates the relationship between obesity and psychological stress. *Obesity Research*, 10(1), 33-41.

While examining body image as a potential mediator of the relationship between obesity and psychological distress, body-image satisfaction was found to partially mediate the relationship between level of obesity and depression/self-esteem.

APPENDIX D: INSTRUMENTATION

SOCIAL PHYSIQUE ANXIETY SCLAE

The following questionnaire contains statements concerning your body physique or figure. By physique or figure we mean your body's form and structure; specifically, body fat, muscular tone, and general body proportions.

Instructions: Read each item carefully and indicate how characteristic it is of you according to the following scale.

- 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.

EXERCISE BENEFITS AND BARRIERS TO EXERCISE SCALE

DIRECTIONS: Below are statements that relate to ideas about exercise. Please indicate the degree to which you agree or disagree with the statements by writing SA for strongly agree, A for agree, D for disagree, or SD for strongly disagree.

1. Exercising makes me feel relaxed.
2. Exercising lets me have contact with friends and persons I enjoy.
3. I am too embarrassed to exercise.
4. I enjoy exercise.
5. Exercise decreases feelings of stress and tension for me.
6. Exercise improves my mental health.
7. Exercising takes too much of my time.
8. I will prevent heart attacks by exercising.
9. Exercise tires me.
10. Exercise increases my muscle strength.
11. Exercise gives me a sense of personal accomplishment.
12. Places for me to exercise are too far away.
13. Exercising will keep me from having high blood pressure.
14. It costs too much to exercise.
15. Exercising increases my level of physical fitness.
16. Exercise facilities do not have convenient schedules for me.
17. My muscle tone is improved with exercise.
18. Exercising improves functioning of my cardiovascular system.
19. I am fatigued by exercise.
20. I have improved feelings of well being from exercise.

21. My spouse (or significant other) does not encourage exercising.
22. Exercise increases my stamina.
23. Exercise improves my flexibility.
24. Exercise takes too much time from family relationships.
25. My disposition is improved with exercise.
26. Exercising helps me sleep better at night.
27. I will live longer if I exercise.
28. I think people in exercise clothes look funny.
29. Exercise helps me decrease fatigue.
30. Exercising is a good way for me to meet new people.
31. My physical endurance is improved by exercising.
32. Exercising improves my self-concept.
33. My family members do not encourage me to exercise.
34. Exercising increases my mental alertness.
35. Exercise allows me to carry out normal activities without becoming tired.
36. Exercise improves the quality of my work.
37. Exercise takes too much time from my family responsibilities.
38. Exercise is good entertainment for me.
39. Exercising increases my acceptance by others.
40. Exercise is hard work for me.
41. Exercise improves overall body functioning for me.
42. There are too few places for me to exercise.
43. Exercise improves the way my body looks.

GODIN'S LEISURE TIME EXERCISE QUESTIONNAIRE

Circle the appropriate response:

1. Are you currently participating in physical activity as part of a class at school?

YES

NO

2. If yes, is this class required as part of the graduation requirements for your school?

YES

NO

3. Are you currently participating in a physical education class (i.e., weight lifting; body conditioning) that is either highly suggested or required for you because of your participation in a sport program at school?

YES

NO

4. Considering a typical 7-day period (a week), how many *days* on the average do you do the following kinds of exercise for at least 60 minutes? Write in each circle the appropriate number of *days per week* that you participate in exercise for at least 60 minutes.

Days per Week

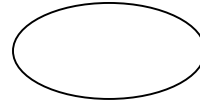
a) **Strenuous Exercise (Heart Beats Rapidly)**

(i.e., running, jogging, hockey, football, soccer, basketball, cross country skiing, roller skating, vigorous swimming, vigorous long distance bicycling)



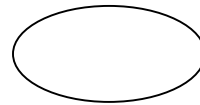
b) Moderate Exercise (Not exhausting)

(i.e., fast walking, baseball, tennis, easy bicycling, volleyball, easy swimming, popular and folk dancing)



c) Mild Exercise (Minimal Effort)

(i.e., yoga, archery, fishing from river bank, bowling, golf, easy walking)



5. Considering a 7-day period (a week), during 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

SOCIAL SUPPORT SURVEY

(Prochaska, Rodgers, & Sallis, 2002)

During a typical week, how often has a member of your household: (For example, your father, mother, brother, sister, grandparent, or other relative). (Never = 0, Once = 1, Sometimes = 2, Almost Every Day = 3, Every day = 4)

1. Encouraged you to do physical activities or play sports?
2. Done a physical activity or played sports with you?
3. Provided transportation to a place where you can do physical activities or play sports?
4. Watched you participate in physical activities or sports?
5. Told you that you are doing well in physical activities or sports?

During a typical week, how often: (Never = 0, Once = 1, Sometimes = 2, Almost Every Day = 3, Every day = 4)

6. Do you encourage your friends to do physical activities or play sports?
7. Do your friends encourage you to do physical activities or play sports?
8. Do your friends do physical activities or play sports with you?
9. Do other kids tease you for not being good at physical activity or sports?
10. Do friends tell you that you are doing well in physical activities or sports?

QUALITATIVE INTERVIEW PROTOCOL

The semi-structured interview will include the following open-ended question:

“Tell me about your experience at fitness camp.” At various times throughout the interview, the researcher asked participants to elaborate on their responses and explain their points in a precise manner. Sample questions include “You mentioned _____. Can you elaborate on that for me?” and “Can you explain what you meant by_____?” (Hoffman et al, 2009).

The interviews were conducted via phone and recorded using a digital recorder to save the information. Next, a professional transcriber recorded the interviews were transcribed into a Word document for analysis (Hoffman, Czech, Blazo, Zwald, & Metzler, 2009).

At various times throughout the interview, the researcher will ask participants questions about their responses to prompt the participant to elaborate on their responses and restate their points in a precise manner. Sample questions include “You mentioned _____. Can you elaborate on that for me?” and “Can you explain what you meant by_____?” (Hoffman et al, 2009).