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EFFECTS OF EXERCISE AND A BRIEF EDUCATION INTERVENTION ON
SOCIAL PHYSIQUE ANXIETY IN COLLEGE STUDENTS

by

LISA ANNE SCOTT

(Under the Direction of A. Barry Joyner)

ABSTRACT

Body image concerns that create anxiety in social settings [social physique anxiety (SPA)] has shown to influence behaviors of college women (Crawford & Eklund, 1994). There have been attempts to lower SPA among college students by utilizing physical activity or administering an education or cognitive-behavioral intervention to decrease SPA (Bane, 1996; O’Dea & Abraham, 1999; Zabinski, Calfas, Gehrman, Wilfley, & Sallis, 2001).

Interventions take time and time in today’s society is limited. Brief or time-limited interventions have shown to be beneficial, and ultra-brief therapy (treatments with six or fewer sessions) has shown to be beneficial to a substantial amount of clients (Shapiro et al., 2003). The purpose of this study was to examine the effects an exercise-only intervention (EO) and a brief education plus exercise intervention (BEE) would have on SPA among male and female college students. The hypothesis was that the BEE group would decrease SPA more than the EO group. The research question was whether there would be a significant decrease in SPA at three weeks and at six weeks.

At the completion of the study there were 213 participants who had completed all three administrations of the 7-item Social Physique Anxiety Scale and who missed two or fewer physical activity classes and/or one or fewer education handouts. Participants were male (n = 60) and female (n = 153) college volunteers (ages 18 – 22 years) from a

southeastern university, currently enrolled in beginner aerobics ($n = 95$), aerobic cross-training ($n = 4$), jogging ($n = 53$), and health ($n = 61$) classes. Participants were assigned into one of the following groups: EO ($n = 69$), BEE ($n = 83$), and control ($n = 61$).

Paired t-tests were run to observe if there was a time effect in SPA. There was not a significant difference in SPA from administration one (week zero) to week three ($p = .503$). There was a significant decrease in SPA from week three to week six ($p = .021$).

A three-way ANOVA ($3 \times 2 \times 3$) with repeated measures on the last factor was utilized to observe whether there was an interaction across time among the three groups and if there was a gender interaction. The alpha level was set at .05. There was a violation in sphericity so the Greenhouse-Geisser adjustment was used. There was not a significant interaction between group, gender, and SPA ($p = .162$). There was an interaction between SPA and group ($p = .022$). The BEE group showed a significant decrease in SPA. The EO and control groups showed no significant changes in SPA. There was not a significant interaction between gender and SPA ($p = .078$). There was no group and gender interaction ($p = .385$). There was a main effect for gender ($p = .001$). The results from this study demonstrated that a brief educational plus exercise intervention, with duration longer than three weeks, may decrease SPA among male and female college students.

INDEX WORDS: Social physique anxiety, Body image concerns, Brief therapy, Brief interventions

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by

LISA ANNE SCOTT

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LISA ANNE SCOTT

Major Professor:

A. Barry Joyner

Committee:

Barry A. Munkasy
Daniel R. Czech

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DEDICATION

For encouraging me to strive for excellence athletically, academically, and personally.

For always believing in me in all that I do.

For instilling in me the importance of values and staying true to those values.

And finally, showing me the importance of self-expression, passion, family, and
friendships.

I dedicate this thesis to the following:

My Parents, Jeffrey Tal and Mary Anne Scott

My Brother, Jeffrey Keith Scott

My Confidants, Ellen Emerson, Derek Seim, Barry Joyner, Rae Strozso, and Brandy

Huggins

My close friends who have helped me academically and personally

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Table of Contents

	Page
ACKNOWLEDGEMENTS.....	7
LIST OF TABLES.....	10
LIST OF FIGURES.....	11
CHAPTER	
1. INTRODUCTION.....	12
2. METHODS.....	16
Participants.....	16
Instrumentation.....	16
Procedure.....	17
3. RESULTS.....	19
4. DISCUSSION.....	23
REFERENCES.....	27
APPENDICES.....	31
A. Research Hypothesis, Research Question, Limitations, Delimitations, Assumptions, and Operational Definitions.....	32
B. Directions Provided to Instructors for BEE and EO Groups.....	35
C. 7-item Social Physique Anxiety Scale for BEE and EO Groups (Weeks 0, 3, and 6).....	37
D. 7-item Social Physique Anxiety Scale for Control Group (Weeks 0, 3, and 6).....	41
E. Brief Education Intervention Handouts.....	45
F. Exercise-only Handouts.....	90

G. Debriefing Information for all Three Groups..... 119

H. Extended Review of Literature..... 123

I. Informed Consent..... 137

J. IRB Forms..... 140

LIST OF TABLES

	Page
Table 1: Group Means and Standard Deviations for Week Zero.....	21
Table 2: Group Means and Standard Deviations for Week Three.....	22
Table 3: Group Means and Standard Deviations for Week Six.....	23

LIST OF FIGURES

	Page
Figure 1: Interaction among BEE, EO, and Control over Six Weeks.....	20

CHAPTER 1

Effects of Exercise and a Brief Education Intervention on

Social Physique Anxiety in College Students

An important domain in self-esteem theory is the physical self (Sonstroem & Morgan, 1989). The physical self has been defined as self-satisfaction with the body and body parts, physical appearance, body awareness, and physical ability or physical fitness (Sonstroem & Morgan). The physique has shown to play a role in not only women's self-esteem but also men's self-esteem (Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986). A survey conducted with college men showed 95 % were dissatisfied with some aspect of their bodies. Men have reported the greatest dissatisfaction with the following: chest, weight, and waist. Many men felt body dissatisfaction because they were not mesomorphic. In society the mesomorphic body type is viewed as ideal for men because it portrays masculinity and is tied to the male sex role. Men who try to obtain this body type may experience an increased focus on the body, which may lead to feelings of shame and failure for falling short of being mesomorphic (Mishkind et al.).

Men have been shown to want muscular bodies to obtain societal masculine ideals. These masculine ideals have been cultural influenced by the media, toy action figures displayed in media, and toy stores (Kimmel & Mahalik, 2004). The media has shown to influence men's body image concerns, and men's body satisfaction decreased when viewing muscular sociocultural ideals (Kimmel & Mahalik).

The media has also impacted women's physical self-esteem and encouraged the thin ideal body type for women (Low et al., 2003). The relation between the thin ideal and body image disturbances was examined. Women high in internalization of the thin ideal and high in body mass index (BMI) reported more body dissatisfaction. Perceptions

of being overweight were related to drive for thinness and body dissatisfaction.

Unrealistic body image standards for women by society may increase the risk for eating disorders and body image concerns among college women (Low et al.).

Along with body image concerns, social physique anxiety (SPA) appeared to have an influence on the behaviors of college women. Social physique anxiety has been defined as anxiety people feel when they believe others are negatively evaluating their bodies (Hart, Leary, & Rejeski, 1989). Crawford and Eklund (1994) observed that SPA may influence behaviors through an interaction with situational conditions related to displaying one's physique. Women tended to have higher SPA when exercising in an aerobics class where fashion attire (tight, close-fitting clothing) was worn compared to the women in a t-shirt attire class. This showed how perceptions of the exercise setting may create more SPA and possibly deter women from exercising in settings where they feel their physiques will be easily and negatively evaluated (Crawford & Eklund).

Yin (2001) suggested that women with high SPA will avoid exercise settings where they believe others will be evaluating their bodies, especially in settings where men are present. This study examined attitudes towards women-only exercise facilities and coed facilities. The results showed that women exercising in women-only facilities had higher SPA than women exercising in coed facilities. This suggests that women with high SPA utilize the women-only facility as a "safe" place to exercise without being evaluated by men (Yin).

Because of the influence SPA and body image concerns have on college women, ways of improving the psychological well-being of female college students in relation to body image concerns and SPA needed to be addressed. Zabinski, Calfas, Gehrman, Wilfley, and Sallis (2001) focused on how exercise may impact body image and body

self-concept and revealed that regular physical activity might protect against body dissatisfaction among college students. However, there were indications that some women may increase body image concerns because of the extensive attention to exercise. This study suggested that future research should focus on assessing expectations of body shape and unrealistic expectations of body image (Zabinski et al.).

O'Dea and Abraham (1999) examined how an educational approach that focused on self-esteem may improve body image, eating attitudes, and behaviors among young male and female adolescents. The results revealed that an educational program that focuses on building self-esteem can improve body image and eating attitudes in young adolescents. This intervention significantly improved body satisfaction, physical appearance ratings, and weight loss behaviors among students.

Bane (1996) combined exercise and cognitive behavior modification to increase participants' confidence in their bodies to try to decrease SPA in female college students. Participants were randomly assigned to either an exercise-only group (EO) or an exercise plus a cognitive-behavioral intervention group (CBI). Participants engaged in aerobic activities three times a week for eight weeks, and all participants met once a week for one hour. Participants in the CBI group received information to enhance confidence in their physiques. The results showed that the CBI group reported greater changes in reduction of social physique anxiety compared to the EO group.

A growing trend in therapy today is brief or time-limited therapies and interventions. A meta-analysis conducted by Shapiro et al. (2003) suggested brief therapy may be an effective treatment. Therapists and clients may view greater acceleration in therapy by making adjustments to the treatment and sessions because of the anticipated short-term duration of the treatment (Shapiro et al.). Ultra-brief therapy (treatments with

six or fewer sessions) also aided a substantial amount of clients. The meta-analysis revealed that psychodynamic treatments may require greater duration of treatment compared to cognitive-behavioral treatments (Shapiro et al.).

Another type of brief therapy which is often utilized with athletes and in school counseling is the solution-focused approach (Hoigaard & Johansen, 2004). The solution-focused approach involves investigating solutions to a problem and empowering the athlete or client by having the athlete or client formulate goals to resolve the problem. Hoigaard and Johansen stated solution-focused approaches create changes quickly with minimal utilization of time.

Research has shown how exercise alone and how an educational intervention alone, may effect SPA. Little research was found that compared the effects of an exercise-only intervention and a brief education plus exercise intervention would have on decreasing SPA. The purpose of this study was to examine the effects an exercise-only intervention and a brief education plus exercise intervention has on SPA. The hypothesis was the brief education plus exercise intervention would decrease SPA more than the exercise-only intervention. The research question was whether there would be a significant decrease in SPA after three weeks and if there would be a significant decrease in SPA after six weeks.

CHAPTER 2

Method

Participants

At the beginning of the study there were 490 participants who volunteered for this study. At the completion of the study there were 213 participants who completed all three administrations of the 7-item Social Physique Anxiety Scale (SPAS-7) and missed two or less physical activity classes and/or one or less education handouts during the study. Participants were male ($n = 60$) and female ($n = 153$) college volunteers (ages 18 – 22 years) from a southeastern university, currently enrolled in beginner aerobics ($n = 95$), aerobic cross-training ($n = 4$), jogging ($n = 53$), and health ($n = 61$) classes. The ethnicities of the participants were Caucasian ($n=154$), African-American ($n=51$), Hispanic/Latino ($n=5$), Asian-Pacific Islander ($n=1$), and other ($n=2$). Participants were assigned into one of the following groups: exercise only group, EO, ($n = 69$), brief education plus exercise group, BEE, ($n = 83$), and control group ($n = 61$).

Instrumentation

The 7-item Social Physique Anxiety Scale (SPAS) was originally a 12-item scale developed by Hart, Leary, and Rejeski (1989). The scale was converted to a 7-item Likert-type scale with anchors being not at all and extremely (Motl & Conroy, 2001). Motl and Conroy examined the cross-validity and latent mean structure of the SPAS-7 and showed “tight” cross-validity and factorial invariance across gender, and showed women to report higher latent mean scores on the SPAS-7 than men ($K = .27$, t value = 3.86, $p < .05$). The SPAS-7 was suggested to be a stable scale for measuring SPA levels among college students (Scott, Burke, Joyner, & Brand, 2004). The single intraclass correlation for men was .85 and .89 for women, and the average intraclass

correlation was .92 for men and .94 for women (Scott et al.).

Procedure

Participants provided written consent to participate in the study. Each physical activity class was randomly assigned to either the exercise-only group (EO) or brief education plus exercise group (BEE). Participants in the health class served as the control group. Participants were informed the study would take six weeks and class attendance was vital. Participants were asked not to perform extra physical activity outside of the study. Participants who missed two or more exercise classes and/or missed more than one education class were eliminated from the study.

The instructor of the physical activity class presented a five to six minute brief education intervention handout at the beginning or at the end of the physical activity class one day a week on the same day and time every week. The instructors of the classes that were in the BEE groups were provided a detail packet with the material to be taught and discussed in each class and how to address questions that may arise during group discussion. There were six packets provided to the instructors (See Appendix E). The packets contained topics such as body image, body dissatisfaction, media influences on body image, building self-esteem, (SPA) and exercise behavior, SPA and eating disorders, exercise and nutrition, and building social support networks. The EO group met for five or six minutes at the beginning or at the end of the physical activity class, similar to the BEE group. The instructors of these classes received six packets containing topics such as time management, organizational skills, enhancing memory, improving learning and note taking, study habits and test taking, performing speeches and presentations, working more efficiently in groups, and conducting research and writing research (See Appendix F). The instructor for the health class (control group) did not

receive packets to be read to the class.

All participants completed the SPAS-7 on the first day of the study. Participants recorded the last four digits of their student ID numbers on the right top corner of the SPAS-7 to protect confidentiality. After three weeks the participants completed the SPAS-7 a second time. Participants also reported how many exercise classes were missed and how many education classes were missed during these three weeks. On the final day of the experiment the participants completed the SPAS-7 for the third time. Participants reported how many total exercise and education classes were missed during the entire six weeks of this study. Participants were able to ask instructors for their attendance records to accurately know how many classes they missed during the study. Participants reported, on the last day of the study, whether or not they participated in physical activity outside of the study and the amount of activity performed. Participants who missed more than two exercise classes during the six weeks and/or missed more than one education class were excluded from the participation of this study.

When the study was completed, the groups were debriefed about the study. All three groups were given the opportunity to receive any of the handouts administered during the six weeks.

CHAPTER 3

Results

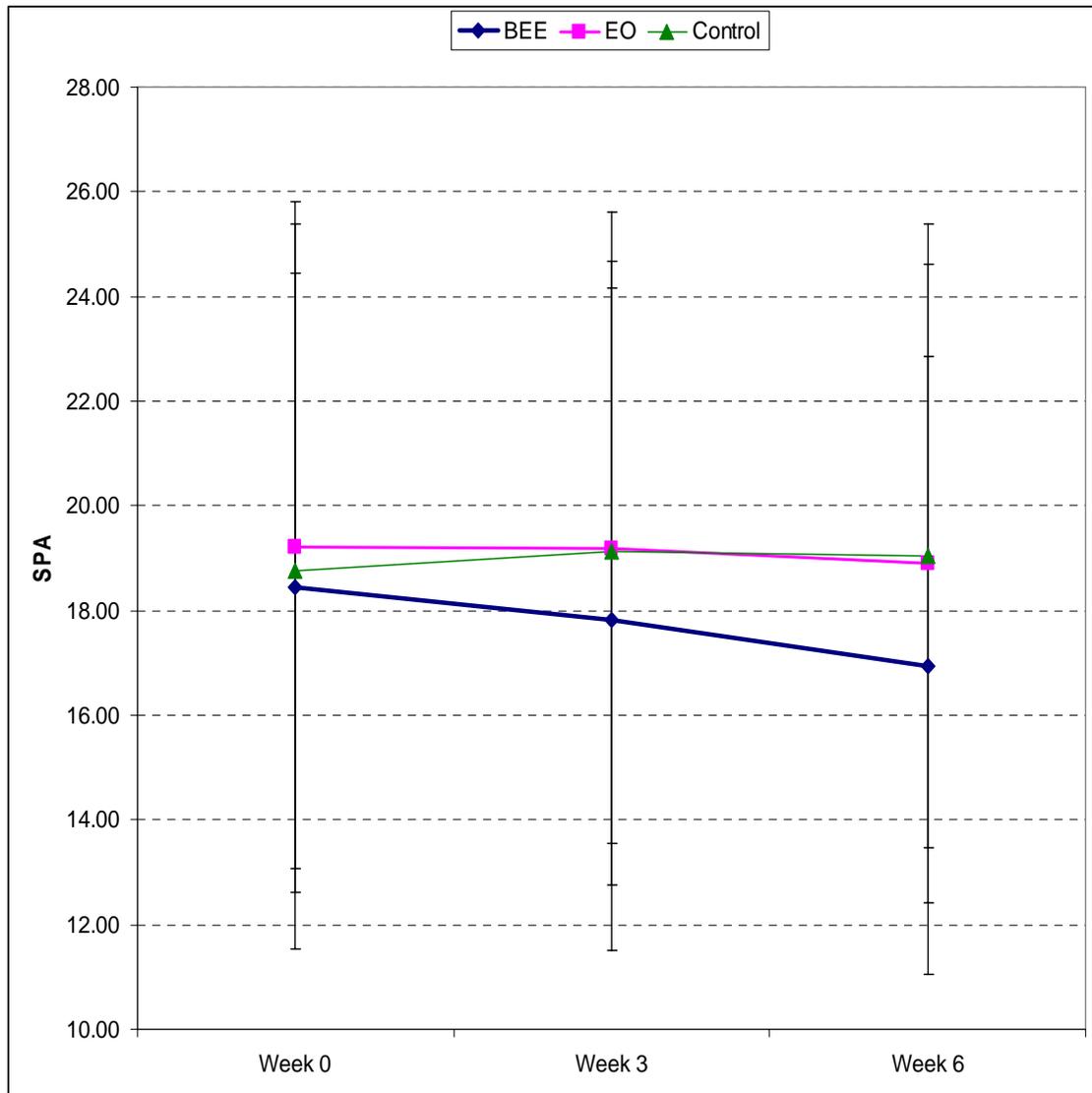
Paired t-tests were computed to observe whether or not there was a time effect in SPA. A three-way ANOVA (3 X 2 X 3) with repeated measures on the last factor was performed to determine if there was a group and gender interaction across time. The alpha level was set at .05.

Paired t-tests showed there was not a significant difference in SPA from administration one (week zero) to week three ($p = .503$). There was a significant decrease in SPA from week three to week six ($p = .021$).

A three-way ANOVA (3 X 2 X 3) with repeated measures on the last factor was utilized to observe whether there was an interaction across time among the three groups and if there was a gender interaction. The alpha level was set at .05. Due to a violation in sphericity the Greenhouse-Geisser adjustment was used. No significant interaction between group, gender, and SPA was found ($p = .162$). There was an interaction between SPA and group ($p = .022$). The BEE group showed a significant decrease in SPA. The interaction was observed in Figure 1 showing the BEE group was the only group that demonstrated a significant decrease in SPA, and SPA for the EO and control groups showed no significant changes during the six weeks.

Figure 1

Interaction among BEE, EO, and Control over Six Weeks



There was not a significant interaction between gender and SPA ($p = .078$). There was no group and gender interaction ($p = .385$). There was a main effect for gender ($p = .001$). Men were lower in SPA than women. Tables 1, 2, and 3 revealed that the

mean SPA scores for the men were lower than the mean SPA scores for the women no matter which group the men and women were in.

Table 1

Group Means and Standard Deviations for Week Zero

<u>SPA</u>	<u>Group</u>	<u>Gender</u>	<u>Mean</u>	<u>±SD</u>	<u>N</u>
<u>Week 0</u>	BEE	Men	14.83	6.85	23
		Women	19.85	6.49	60
		Total	18.46	6.93	83
	EO	Men	13.55	5.97	11
		Women	20.29	6.18	58
		Total	19.22	6.60	69
	Control	Men	16.00	5.69	26
		Women	20.80	4.83	35
		Total	18.75	5.69	61
	Total	Men	15.10	6.17	60
		Women	20.24	6.00	153
		Total	18.79	6.47	213

Table 2

Group Means and Standard Deviations for Week Three

<u>SPA</u>	<u>Group</u>	<u>Gender</u>	<u>Mean</u>	<u>±SD</u>	<u>N</u>
<u>Week 3</u>	BEE	Men	14.52	6.43	23
		Women	19.10	5.86	60
		Total	17.83	6.33	83
	EO	Men	13.55	6.42	11
		Women	20.26	5.88	58
		Total	19.19	6.42	69
	Control	Men	18.00	6.32	26
		Women	19.94	4.87	35
		Total	19.11	5.57	61
	Total	Men	15.85	6.56	60
		Women	19.73	5.65	153
		Total	18.64	6.16	213

Table 3

Group Means and Standard Deviations for Week Six

<u>SPA</u>	<u>Group</u>	<u>Gender</u>	<u>Mean</u>	<u>±SD</u>	<u>N</u>
<u>Week 6</u>	BEE	Men	13.43	5.64	23
		Women	18.30	5.46	60
		Total	16.95	5.90	83
	EO	Men	13.91	5.28	11
		Women	19.84	6.29	58
		Total	18.90	6.49	69
	Control	Men	17.31	6.21	26
		Women	20.34	4.74	35
		Total	19.05	5.58	61
	Total	Men	15.20	6.03	60
		Women	19.35	5.67	153
		Total	18.18	6.06	213

CHAPTER 4

Discussion

The results supported the hypothesis that the BEE group showed more of a significant decrease in SPA than the EO group. The research question was whether there would be a significant decrease in SPA at three weeks and at six weeks. The results showed there was not a significant decrease in SPA at three weeks but there was a

significant decrease in SPA at six weeks among the groups.

In this study, the brief education plus exercise intervention showed to lower SPA among male and female college students more than exercise alone. These results were congruent with past research conducted on female college students in lowering SPA (Bane, 1996). The results from this study did not reflect the results obtained by Nicolino, Martz, and Curtin (2001). Nicolino et al. hypothesized that dieting behavior, body image, fear of fat, and anxiety concerning physical appearance would decrease after receiving cognitive-behavioral therapy. None of these showed a significant decrease except for a slight reduction in dieting behavior (Nicolino et al.). Other studies revealed similar results that were observed in this study showing cognitive and educational interventions to be effective in lowering body dissatisfaction and SPA (Bane, 1996; O'Dea & Abraham, 1999; Paquette, Leung, Staats, & Raine, 2002).

The EO group showed no significant changes in SPA. These results were not congruent with previous research showing that exercise alone may reduce body dissatisfaction and increase body self-concept which may reduce SPA (Nies, Reisenberg, Chruscial, & Artibee, 2003; Stoll & Alfermann, 2002; Zabinski, Calfas, Gehrman, Wilfley, & Sallis, 2001). The control group also showed no significant changes in SPA.

There was not a significant decrease in SPA from week zero to week three for the BEE, EO, and control groups; however, there was a significant decrease in SPA for the BEE group from week three to week six. This revealed that for a significant decrease in SPA to occur the intervention should last longer than three weeks. These results were similar to those shown by Copeland, Swift, Roffman, and Stephens (2001). In this study both brief interventions showed to be beneficial in reduction of cannabis use; however, only the six-session group reported significantly reduced levels of cannabis consumption

(Copeland et al.).

When gender was examined, the results showed that men scored lower in SPA than women during the six weeks and scored lower no matter which group the male participants were in. This gender effect has been observed in past research (Motl & Conroy, 2001). Women reported higher latent mean scores on the SPAS-7 than men (Motl & Conroy). Women have also reported higher discrepancy between their real versus their ideal body images than men and have reported greater body dissatisfaction than men (Lokken, Ferraro, Kirchner, & Bowling, 2003).

The results of this study showed the BEE group significantly decreased SPA. This result reflected the importance of creating an intervention to lower SPA among male and female college students that incorporates not only exercise but also brief education on topics such as body image concerns, the harmful effects of SPA, proper exercise and nutrition guidelines, and ways to overcome SPA. Body image concerns and SPA have shown to cause anxiety, eating disorders, and possibly other mental health problems such as lowered physical self-esteem (Cook-Cottone & Phelps, 2003; Kimmel & Mahalik, 2004; Low et al., 2003; Sonstroem & Morgan, 1989). The results showed that by creating an intervention with exercise plus brief education SPA anxiety may decrease. This reduction in SPA may also aid college students in lowering body image concerns and possibly protect this population from eating disorders and lowered physical self-esteem. The results from this study also suggested that an intervention should last longer than three weeks but could be as short as six weeks to significantly lower SPA among male and female college students. College life is busy and finding spare time is probably not easy for most college students. A brief intervention that involves exercise and education within a six week period may be more practical and time efficient for college students.

Many colleges require students to complete physical activity and health courses. Because the education part of this intervention is very brief, an intervention for lowering SPA may be easily placed within the curriculum of these classes. The intervention may be an added benefit to the course material.

In this study the only physical activity classes utilized were aerobics and jogging classes. Future studies should examine the impact other physical activity classes such as fitness walking, swimming, water aerobics, weight training, body conditioning, and other classes may have on SPA for male and female college students. Studies should examine whether an exercise class that incorporates weights would decrease SPA for male or female college students. Past research has suggested that men want a mesomorphic or muscular type body (Kimmel & Mahalik, 2004; Mishkind, Rodin, Silberstein, & Striegel-Morre, 1986). Research should be conducted to analyze which type of physical activity, aerobic or anaerobic training, would decrease SPA more in men.

Future studies should also examine whether exercise plus a brief education intervention would be effective in lowering SPA among other populations besides college students. Older adults and physically disabled populations may benefit from an intervention to lower SPA especially if the intervention involved exercise plus education about SPA and only lasted six weeks. Another population that might benefit from this type of intervention is adolescents. Research has shown that adolescents are experiencing body image concerns and dissatisfaction at early ages starting around 4th grade and up to 10th grade (Adams et al., 2000; Baranowski, Jorga, Djordjevic, Marinkovic, & Hetherington, 2003; Jones, Vigfusdottir, & Yoonsun, 2004; Presnell, Bearman, & Stice, 2004). Providing an exercise plus brief education intervention might decrease SPA in this population and might possibly prevent high levels of SPA in adulthood.

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APPENDICES

APPENDIX A

Research Hypothesis and Question, Limitations, Delimitations, Assumptions, and
Operational Definitions

Research Hypothesis

RH1: The brief education plus exercise group (BEE) will significantly decrease SPA more than the exercise-only group (EO).

Research Question

RQ1: Is there a significant decrease in SPA after three weeks of the intervention and after six weeks of the intervention?

Limitations

1. Participants were volunteers from physical activity classes and therefore were not randomly selected to participate in the study.
2. Participants withdrew from the study because the study took six weeks to complete.
3. Participants did not participate or were absent on the days the education was provided to the students.
4. Participants who missed more than two exercise classes and/or missed more than one education class, were excluded from the study.
5. Participants asked not to perform additional physical activity outside of the study or start a new physical activity program for the duration of the study.

Delimitations

1. This study contained participants from a southeastern university only.
2. This study utilized mostly college women.
3. The physical activity classes utilized in this study were only aerobic (aerobic classes and jogging classes).

Assumptions

1. Participants responded to the questions on the 7-item SPAS honestly.

2. Participants did not discuss information provided in the brief education groups to anyone in the other physical activity classes or to anyone outside of the study.
3. Participants performed at their optimal level during the physical activity classes.
4. Participants were attentive during the brief education.

Definitions

1. Social physique anxiety – anxiety a person feels when he or she believes others are evaluating his or her body negatively (Hart, Leary, & Rejeski, 1989)
2. Exercise – for this study, cardiovascular activity (jogging or aerobic classes) for approximately 20 minutes twice a week

APPENDIX B

Directions Provided to Instructors for BEE and EO Groups

Directions for Instructors

1) Read the following paragraph out loud to students:

Everyone will have the opportunity to participate in a six week study conducted by Lisa Scott a graduate student at Georgia Southern. Once a week you will receive a handout from me. I will read the handout to the class while everyone reads along, silently, with me. The handouts will take about 5 minutes or less to read. During this study you will also complete a short questionnaire. The questionnaire takes about 3 to 4 minutes to complete. During the study, you will be asked to continue your normal activities and daily routines. Please try not to begin new physical activities or programs during the study. There is no penalty for not participating in the study and, you may withdrawal from the study at anytime without penalty. Ms. Scott greatly appreciates your participation.

2) Once you read the paragraph, pass out the consent forms to be signed by the student. **The students should get 2 copies of the consent forms. Tell the students to keep one copy of the consent form for their records.** Pick up the signed forms and place them back into the consent form envelope.

3) Administer the 7-item SPAS to the students. **Make sure they place the last 4 digits of their social security numbers on the SPAS.** Then, take up the SPAS and returned them to the envelope labeled "Scale: SPAS".

4) Administer the handout. **Make sure everyone receives a copy of the handout** and begin reading to the class. If the students have any questions, tell them to write the questions down and contact Ms. Scott.

APPENDIX C

7-item Social Physique Anxiety Scale for BEE and EO Groups (Weeks 0, 3, and 6)

Class Participating in _____ Last 4 digits of social security #: _____

Please complete the following demographic information.

Gender: Male Female

Year in School: Freshman Sophomore Junior Senior Graduate

Ethnicity: Caucasian African-American Asian-Pacific Islander

Hispanic/Latino Other _____

Date of Birth: _____

Please read each item and then indicate on the following scale the degree to which the statement is a characteristic of you.

1	2	3	4	5
not at all	slightly	moderately	very	extremely

1. _____ I wish I was not so uptight about my physique/figure.
2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
4. _____ In the presence of others, I feel apprehensive about my physique/figure.
5. _____ I am comfortable with how fit my body appears to others.
6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

(Week 3)

Class Participating in: _____ Last 4 digits of Social Security # _____

Please read each item and then indicate on the following scale the degree to which the statement is a characteristic of you.

1	2	3	4	5
not at all	slightly	moderately	very	extremely

1. _____ I wish I was not so uptight about my physique/figure.
2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
4. _____ In the presence of others, I feel apprehensive about my physique/figure.
5. _____ I am comfortable with how fit my body appears to others.
6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

How many physical activity classes have you missed during this study? _____

How many handouts have you missed during this study? _____

Have you started a new activity/exercise or sports program while this study has been conducted? (yes or no)

If you have started a new activity/exercise or sports program, please briefly describe what type of activity you are performing and how often you perform this activity.

(Week 6)

Class Participating in: _____ Last 4 digits of Social Security #: _____

Please read each item and then indicate on the following scale the degree to which the

statement is a characteristic of you.

1	2	3	4	5
not at all	slightly	moderately	very	extremely

1. _____ I wish I was not so uptight about my physique/figure.
2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
4. _____ In the presence of others, I feel apprehensive about my physique/figure.
5. _____ I am comfortable with how fit my body appears to others.
6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

How many physical activity classes have you missed during the entire six weeks of this study? _____

How many handouts have you missed during the entire six weeks of this study?

Have you started a new activity/exercise or sports program while this study has been conducted? (yes or no)

Date when you started new activity: _____

If you have started a new activity/exercise or sports program, please briefly describe what type of activity you are performing and how often you perform this activity.

APPENDIX D

7-item Social Physique Anxiety Scale for Control Group (Weeks 0, 3, and 6)

Class Participating in _____ Last 4 digits of social security #: _____

Please complete the following demographic information.

Gender: Male Female

Year in School: Freshman Sophomore Junior Senior Graduate

Ethnicity: Caucasian African-American Asian-Pacific Islander

Hispanic/Latino Other _____

Date of Birth: _____

Please read each item and then indicate on the following scale the degree to which the statement is a characteristic of you.

1	2	3	4	5
not at all	slightly	moderately	very	extremely

1. _____ I wish I was not so uptight about my physique/figure.
2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
4. _____ In the presence of others, I feel apprehensive about my physique/figure.
5. _____ I am comfortable with how fit my body appears to others.
6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

(Week 3)

Class Participating in: _____ Last 4 digits of Social Security #: _____

Please read each item and then indicate on the following scale the degree to which the statement is a characteristic of you.

- | | | | | |
|------------|----------|------------|------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| not at all | slightly | moderately | very | extremely |
1. _____ I wish I was not so uptight about my physique/figure.
 2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
 3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
 4. _____ In the presence of others, I feel apprehensive about my physique/figure.
 5. _____ I am comfortable with how fit my body appears to others.
 6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
 7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

How many classes have you missed during this study? _____

How many handouts have you missed during this study? _____

Have you started a new activity/exercise or sports program while this study has been conducted? (yes or no)

If you have started a new activity/exercise or sports program, please briefly describe what type of activity you are performing and how often you perform this activity.

(Week 6)

Class Participating in: _____ Last 4 digits of Social Security #: _____

Please read each item and then indicate on the following scale the degree to which the statement is a characteristic of you.

1	2	3	4	5
not at all	slightly	moderately	very	extremely

1. _____ I wish I was not so uptight about my physique/figure.
2. _____ There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.
3. _____ Unattractive features of my physique/figure make me nervous in certain social settings.
4. _____ In the presence of others, I feel apprehensive about my physique/figure.
5. _____ I am comfortable with how fit my body appears to others.
6. _____ It would make me uncomfortable to know others were evaluating my physique/figure.
7. _____ When it comes to displaying my physique/figure to others, I am a shy person.

How many classes have you missed during the entire six weeks of this study?

How many handouts have you missed during the entire six weeks of this study?

Have you started a new activity/exercise or sports program while this study has been conducted? (yes or no)

Date when you started new activity: _____

If you have started a new activity/exercise or sports program, please briefly describe what type of activity you are performing and how often you perform this activity.

APPENDIX E

Brief Education Intervention Handouts

Body Image and Body Dissatisfaction (Participant)

Body image is defined as a picture of our body we form in our minds. An important component in the developing process, particularly in adolescence, is the formation of body image. Ethnicity and culture play a major role in body image development. Research has shown that some ethnicities have higher body image concerns than others. There are cultural differences on how much focus is on outward or physical appearance, as well.

Body dissatisfaction is defined as the difference between a self-perceived body image and a self-generated ideal body image. Body dissatisfaction may occur when an individual wants to change an aspect of his or her body, whether this change is to lose weight or gain muscle mass. In 1996, 56% of women reported dissatisfaction in physical appearance. This percentage had increased from 23% in 1972. Over 60 % of female college students reported some form of eating disturbances.

Body dissatisfaction was reported by 42% of male college students and 85% of men were dissatisfied with their body weight. Men were equally divided between those who wanted to lose weight and those who wanted to gain weight or muscle mass.

Individuals with high body dissatisfaction may develop problems. Body dissatisfaction may create eating disturbances, social problems, and anxiety. College students often strive to define and accept themselves as individuals. Body image concerns and body dissatisfaction may create more problems and more anxiety during this period of self defining and acceptance. Research has revealed that increasing physical self-esteem or physical self-concept may aid college students in the self acceptance process and may decrease occurrence of eating disturbances and social problems.

Activities to Try

1. Stop negative thoughts about your body when these thoughts arise, and replace these thoughts with positive thoughts about your body.
2. Attend all your physical activity classes and give 100% effort in each class. Physical activity or exercise will help improve your health and physique.
3. Avoid public mirror glancing. Public mirror glancing refers to the quick stop and look people do when they are confronted with a mirror or sometimes glass. Frequent mirror glancing keeps you preoccupied with your body. Be confident in how you look and remind yourself you do not have to stop in front of every mirror to “check yourself out.”

*** If you have any questions, please contact Lisa A. Scott at (912) 871-1994 or at lscott13@georgiasouthern.edu. When you call, mention that you are in her study. You do not have to give her your name. Ms. Scott’s office hours are Monday 8:30 a.m. - 9:30 a.m., Tuesday 9:30 a.m. - 10:30 a.m. and 2:30 p.m. - 3:30 p.m., Wednesday 8:30 a.m. - 9:30 a.m., and Thursday 9:30 a.m. - 10:30 a.m. and 12:30 p.m. - 2:30 p.m. In case of an emergency call (912) 587-3540.

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Perceptions and Body Types (Participant)

Our perceptions have important influences on how we behave, view others, and view ourselves. Research has shown how perceptions affect ideas of how attractive physiques should appear. In studies examining adolescences, fourth graders were more likely to describe themselves as overweight when compared to seventh graders. Male participants expressed less personal concerns about their weight and were less likely to be involved in weight loss compared to the female participants. This study showed that children's race, age, and social economical status played major roles in influencing their perceptions of ideal adult body size, weight concerns, and weight control tactics. Another study revealed that women exposed to unattractive men and women reported more positive perceptions and feelings about their own body images compared to women exposed to attractive men and women.

Body image perceptions differ among athletes playing different sports and different team positions in certain sports. Ski jumpers strive for a thinner body to improve jump lengths. Soccer players had a more diverse perception of ideal body images. Soccer requires different skills and positions to be played, therefore, the soccer players' perceptions of body images may change from one position to another. Body builders' perceptions were more focused on appearance and size. Body builders were more concerned and more dissatisfied with their looks compared to ski jumpers and soccer players.

Research conducted with college students showed that female students reported heavier weight ranges were more normal for both men and women. Male students reported that lighter weight ranges were more normal for both men and women.

However, female students were no more likely than the male students to report being overweight and on a diet.

To help create more realistic perceptions of body image, you must understand what your body type is and what you can change and what you cannot change. There are three basic body types: ectomorphs, endomorphs, and mesomorphs. Ectomorphs tend to be more lean, lanky, and stick-like. Building muscle is challenging but doable.

Ectomorphs tend to have muscle with more slow-twitch fibers enabling them to have stamina. These individuals often are good runners. Endomorphs tend to be more rounded and voluptuous. Endomorphs often have the potential to develop powerful lower bodies and see great results from both aerobic and strength training. Mesomorphs tend to have more muscular builds. These individuals can build muscle quickly and burn fat easily.

Genetics plays a role in body type; however, proper nutrition and exercising will help create changes in physique. If you are big-boned or small-boned you will stay that way, but you can change the amount of body fat or muscle mass on your body. If you want to lose weight your focus should be to lose body fat. Do not focus so much on a specific size to become, instead focus on becoming more lean. If you want to gain weight focus on gaining lean muscle mass. Having realistic perceptions of your body image will help you set realistic goals to achieve a healthier and improved physique.

Things to Remember

1. Our perceptions play a role in our own body image and how we view other's bodies
2. We are who we perceive ourselves to be. Practice positive self-talk. Self-talk is a personal dialogue with yourself. If you use positive self-talk, think positive about yourself, you can change your perceptions in a positive way.
3. Remember everyone has different body types. Know your body type to be able to set

realistic goals if you wish to improve your health and physique.

Media Influence on Body Image

Whether commercial advertisements on television, in magazines, or sport channels, the media projects the image that all women should be feminine and thin, and all men should be masculine and muscular. The media influences our perceptions of how men's and women's bodies should appear.

Hispanic women reported comparing their physiques to magazine standards. Television and magazines have been shown to effect teenage girls' body dissatisfaction and have been shown to be a link in young women's decisions to diet and develop bulimia.

Television shows portray thin and obese men and women characters in different ways. From 10 of the top-rated prime-time fictional programs on six broadcast networks during the 1999 - 2000 season, five episodes from each were quantitatively analyzed to examine how characters' body types affected how these characters were portrayed on the episode. There were 1018 major television characters, and only 14% of the women and 24% of the men were overweight or obese which is less than half of the general population of men and women who are obese. The overweight and obese characters were associated with negative characteristics. Larger characters had fewer interactions with friends and romantic partners. These characters were also more likely to be shown eating on the episode and be the object of humor and jokes. Some of the positive findings were that the larger female characters received more respect on the shows and the larger male characters received less ridicule.

Media influences have had negative effects on college students. Exposure to thin

models has been associated with increased body image concerns in college students. This internalization of the thin ideal, that has been portrayed through the media, has been strengthened through social reinforcement and has shown to be a potential risk factor for body image concerns and eating disturbances.

People need to become aware of how the media portrays male and female bodies. Media influence on body image provides people with unrealistic ideas about their own body images. This may lead to body dissatisfaction and social physique anxiety which is anxiety a person feels when he or she believes others are evaluating his or her physique negatively.

Things to Try

1. Examine magazine ads and commercial advertisements. Analyze how the media portrays body images for men and women and how these images may differ.
2. Think of ways the media has possibly affected your view of your own body image.
3. Write down ways the media has possibly influenced your views of body images for men and women. Then write down ways the media should portray realistic body images for men and women.

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Things to Remember

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Social Physique Anxiety and Exercise Behaviors (Participant)

An individual's physique is an important component of self-perception. Social physique anxiety is anxiety individuals experience when they believe that others are evaluating their physiques negatively. Social physique anxiety refers to concerns about a person's body proportions. Individuals with body image concerns may experience social physique anxiety in social settings where their physiques are the main objects of evaluations.

Studies have shown that social physique anxiety may influence exercise behaviors. Individuals with high social physique anxiety may avoid certain exercise settings or classes where the clothing worn is tight fitting and shows more of the physique. Individuals may avoid settings where they feel their physiques are being constantly evaluated by others, especially if they feel that their physiques are being evaluated negatively. Women with high social physique anxiety tend to exercise in "all women's facilities" because this exercise setting serves as a protected area for these women to exercise and not feel that they are being evaluated by men.

People who avoid exercise and fitness settings because of social physique anxiety are avoiding the very activity that may improve their health and physiques. Improving health and physiques may help decrease social physique anxiety.

Things to Remember

1. Remind yourself that if you avoid exercising or physical activity you are avoiding the very things that will help improve your health and physique and will help lower your social physique anxiety.
2. Remind yourself there is more to you than just your outside appearance.
3. Practice Positive Self-Talk. Remember that self-talk is a dialogue with yourself. Talk positively to yourself about your physique and about performing physical activity and exercise. Encourage yourself to always go to your physical activity class. “Talk your self up” or “psych your self up” to attend exercise classes. For example, you could tell your self “this will be fun” or “going to my physical activity class will get me one step closer to improving or maintaining my health and physique”.

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Eating Disorders and Social Physique Anxiety (Participant)

Physical self-concept and drive for thinness has been highly correlated with body dissatisfaction. Body dissatisfaction may be one of the strongest predictors for development of eating disorders.

Anorexia nervosa is an eating disorder characterized by deliberate restriction of food and life-threatening weight loss. Bulimia nervosa is an eating disorder characterized by frequent bouts of binge eating followed by purging or self-induced vomiting. Purging may also be performed by taking laxatives or exercising excessively. More than 10 million people in the United States meet the criteria for one of these eating disorders and most of these people are women.

Eating disorders can lead to many health problems. People with anorexia restrict food to the point that the body has to burn lean muscle to function. This lowers the basal metabolic rate which may remain effected after treatment and regain of boy weight. Heart problems may also develop. The heart begins to pump irregularly and becomes weak. Blood pressure falls dramastically. Death may occur due to multiple organ system failure. Starvation also causes impaired immune system and insomnia. Women who starve themselves may develop amenorrhea. Amenorrhea is when the menstrual cycle stops due to low blood estrogen and often causes bone mineral loss.

People with bulimia develop health problems, too. Using laxatives may cause injury to the lower intestinal tract. Electrolyte imbalances caused by vomiting or diarrhea may lead to abnormal heart rhythms and may cause kidney damage. Vomiting causes infection to the pharynx, esophagus, and erosion of the teeth.

Treatment for anorexia nervosa involves physicians, psychiatrists, family, and

dietitians working together as a team. The first step is to stop weight loss and establish regular eating patterns even if initial food intake is small in the beginning of treatment. Treatment for bulimia nervosa involves a team of physicians, therapists, family, and dietitians. Weight maintenance, instead of weight cycles of weight gain and weight loss, should be the treatment goal.

People with high body dissatisfaction may be more likely to develop an eating disorder. Body dissatisfaction is related to social physique anxiety. Social physique anxiety may also contribute to risk factors involved in developing eating disturbances. Increasing physical self-concept and decreasing the drive for thinness may lead to decreases in body dissatisfaction and social physique anxiety which may help prevent eating disorders.

Things to Remember

1. Never restrict food servings to below the numbers presented in the food guide pyramid (see food guide pyramid).
 2. Eat frequent small meals. People who eat frequently keep their metabolisms constantly active and do not get so hungry that they gorge when they finally eat.
 3. Always remember to focus on proper nutrition and proper portions of food you should eat.
- * Remembering healthy eating habits may help you avoid health concerns and problems in the future!

Enhancing Self-Esteem

Self-esteem is defined as the extent to which an individual feels worthy and useful. Self-esteem is a person's sense of self-respect. Having high self-esteem is a characteristic of a psychologically healthy person. People with high self-esteem report a high degree of self-confidence, self-respect, and self-satisfaction.

Individuals with low self-esteem have trouble making decisions, resist changing their behaviors and actions, and usually do not appreciate any form of criticism. People with low self-esteem are more likely to have body image concerns and high social physique anxiety. By improving self-esteem, particularly physical self-esteem or physical self-concept, body image concerns and social physique anxiety may decrease.

People with low self-esteem can learn not to focus on their negative traits but focus on identifying and appreciating their positive characteristics and abilities. People with low self-esteem should learn to accept constructive criticism because this develops personal growth.

By making healthy life style changes such as exercising, people with low self-esteem can begin to develop a higher self-esteem. Studies have shown that exercise and physical activity may increase self-esteem. Studies conducted with women participating in aerobic training and running programs showed positive changes in physical fitness, perceptions of exercise ability, global self-esteem, and attitudes toward their bodies. College men participating in a weight-training program showed increase gains on physical self and global self-esteem.

Ways to Enhance Self-Esteem

1. Have realistic expectations for yourself. Set goals that are challenging, and attainable.

Goal setting should involve short and long term goals.

2. Utilize goal setting in different aspects of your life. For example, set goals for school, relationships, work, and exercising.

3. Create detailed plans on how to effectively meet your goals. Make sure your plan of action is based on reasonable judgments and decisions. Make sure your goals are measurable so you can evaluate these goals later. Sometimes you may have to adjust your goals to make them more attainable or realistic. Remember to try to keep the goals attainable and challenging.

4. Maintain physical health. Regular exercise creates a sense of well-being. Exercise creates a healthier body internally and externally.

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Exercise and Proper Nutrition (Participant)

A diet plan should contain the following principles: **adequacy** to ensure the diet has all the essential nutrients, fiber, and energy in sufficient amounts, **balance** to ensure the diet contains foods of a number of types in proportion to each other, **calorie control** to manage the calories taken in while also providing an adequate and balanced diet, **nutrient density** to ensure the foods you eat are nutrient dense meaning these foods have a large amount of nutrients in relation to the energy or calories these foods provide, **moderation** which involves eating foods high in fat and sugar only on occasions, and **variety** to ensure the diet has a wide selection of different foods from the food guide pyramid. The food guide pyramid is utilized to aid in the selection of nutritious foods. The pyramid is broken into five food groups: 1) bread, cereal, rice, and pasta, 2) vegetables, 3) fruits, 4) milk, yogurt, and cheese, and 5) meat, poultry, fish, dry beans, eggs, and nuts. The food guide pyramid also contains the number of servings for each food group that should be provided in a proper daily diet. The bread, cereal, rice and pasta group requires 6-11 servings, vegetables required 3-5 servings, fruits require 2-4 servings, milk, yogurt, and cheese group requires 2-3 servings, and meat, poultry, fish, dry beans, eggs, and nuts group requires 2-3 servings.

If an individual wants to loose weight, he or she should only loose one to two pounds a week. If weight loss exceeds more than two pounds a week, the weight loss is most likely due to water loss. If a person loses weight too quickly and is not eating enough food, the body will begin to break down lean muscle to provide energy needed for the body to function. Once this occurs the basal metabolism begins to slow down. This causes the body not to burn calories efficiently.

Exercise is also important for maintaining health and for improving physique. Exercise increases lean muscle mass, which is more metabolically active. This causes the basal metabolism to increase. Therefore, people with more lean muscle mass burn more calories at rest than people who have more body fat.

There are other benefits exercise and physical activity provide. Exercise improves cardiovascular and respiratory function, reduces risk factors for heart disease, decreases anxiety, decreases depression, increases feelings of well-being, and enhances work, recreational, and sport performances. Studies have shown that exercise may reduce body image concerns and social physique anxiety.

Tips for Planning a Well-Balanced Diet

1. A diet for good nutrition contains carbohydrate, protein, fat, vitamin, minerals, and water.
2. Weight loss should be gradual (no more than 2 lbs. a week).
3. Weight loss should be due to loss of fat and not lean body tissue.
4. People should eat at least three meals a day.
5. Remember fad diets that offer quick and easy weight loss usually create water weight loss and often times cause people to regain more weight once the diet has been completed.

Tips for Exercising

1. For fat-weight loss aerobic exercise involving large muscle groups should be performed at least twice a week.
2. Exercising should be performed at 70% to 85% of your heart rate maximum. To find your heart rate range, subtract your age from 220. This number is your heart rate max. Take your heart rate max and multiply it by 70% to get the number for the lower part of your range. Then take your heart rate max and multiply it by 85% to get the upper part of your range.

Formula: $220 - \text{age} = \text{heart rate max}$

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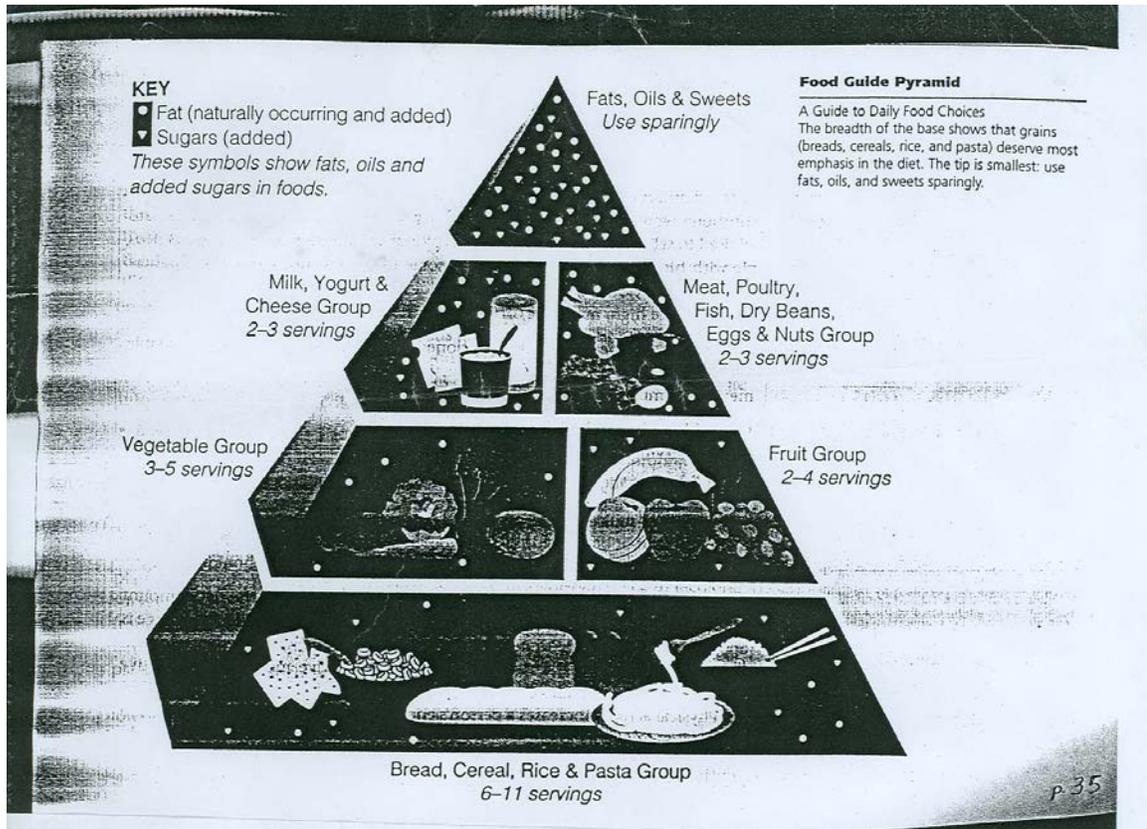
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3. Resistance training helps increase and maintain bone density and helps build lean muscle mass. Remember lean muscle burns more fat at rest than does fat mass.
4. When resistant training, perform a minimum of 8 to 10 separate exercises that train the major muscle groups such as arms, shoulders, chest, abdomen, back, hips, and legs. Perform a minimum of one set of 8 to 12 repetitions of each of these exercises to the point of fatigue. Remember to perform every exercise through a full range of motion.



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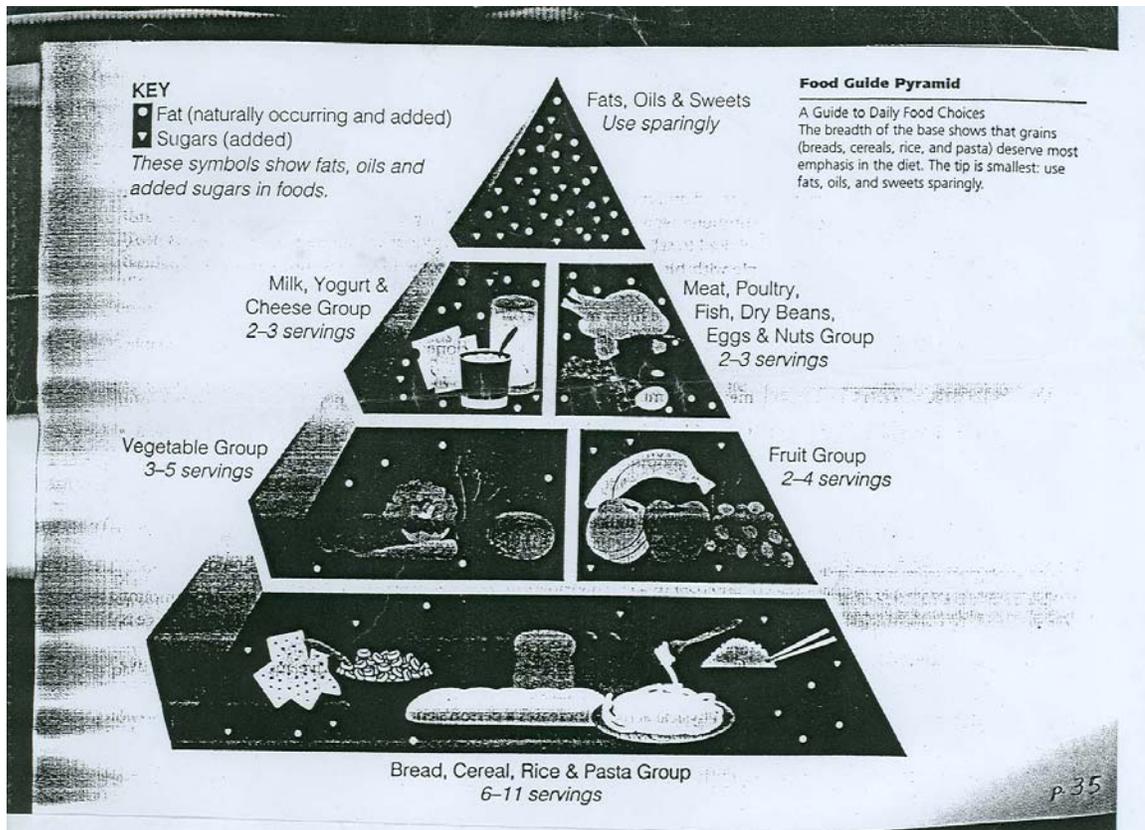
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Building Social Support Networks (Participant)

When trying to start an exercise program, whether it is to lose, gain, or maintain a healthy weight, seeking out people to support you in this action is important. Social support is defined as the exchange of resources between at least two people, a recipient and a provider, in an attempt to enhance the well-being of the recipient. There are four distinguishable forms of social support, 1) **listening**, 2) **emotional**, 3) **emotional challenged**, and 4) **shared social reality**, that can be provided by concerned individuals. Listening support involves people actively listening to an individual without providing advice or making judgments. Emotional support is support provided to an individual during an emotionally difficult time. Emotional challenge support involves people challenging an individual to perform his or her best to overcome obstacles and fulfill goals. Shared reality support involves people, serving as reality check points where the individual can have his or her perceptions of social contexts monitored. These people who serve as check points have similar experience, values, priorities, and perceptions as the individual or recipient who is receiving the social support.

Research has shown that social support networks or groups are beneficial. People who use social support were more likely to feel lower levels of stress and strain. Social support has been shown to increase physical activity. Social support especially from family and peers has been shown to encourage and increase exercising. Peer support has shown to be the most influential in increasing physical activity.

Building social support networks and groups may help people build confidence in their plan to exercise and develop healthier physiques. Social support can help encourage people to continue with their exercise programs and help build their self-confidence in

their physical appearance.

Tips for Building Social Support Groups

1. Identify the type of support you feel you need and the people who could help you gain this support. The people in your support group should make you feel good about yourself. They should encourage you to complete and perform well on tasks. For example, if you state you are going to start an exercise program, your support group should encourage you to start the program and continue it for good health.
2. Make sure you have access to your support group. The people in your support group should be people you see frequently and have easy access to. They must be predictable and dependable.
3. Examine the support groups you may currently have. Ask yourself if these people make you feel good about who you are, and if they encourage you to set and reach new goals.

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Building Social Support Networks (Instructor)

When trying to start an exercise program, whether it is to lose, gain, or maintain a healthy weight, seeking out people to support you in this action is important. Social support is defined as the exchange of resources between at least two people, a recipient and a provider, in an attempt to enhance the well-being of the recipient. There are four distinguishable forms of social support, 1) **listening**, 2) **emotional**, 3) **emotional challenged**, and 4) **shared social reality**, that can be provided by concerned individuals. Listening support involves people actively listening to an individual without providing advice or making judgments. Emotional support is support provided to an individual during an emotionally difficult time. Emotional challenge support involves people challenging an individual to perform his or her best to overcome obstacles and fulfill goals. Shared reality support involves people, serving as reality check points where the individual can have his or her perceptions of social contexts monitored. These people who serve as check points have similar experience, values, priorities, and perceptions as the individual or recipient who is receiving the social support.

Research has shown that social support networks or groups are beneficial. People who use social support were more likely to feel lower levels of stress and strain. Social support has been shown to increase physical activity. Social support especially from family and peers has been shown to encourage and increase exercising. Peer support has shown to be the most influential in increasing physical activity.

Building social support networks and groups may help people build confidence in their plan to exercise and develop healthier physiques. Social support can help encourage people to continue with their exercise programs and help build their self-confidence in

their physical appearance.

Tips for Building Social Support Groups

1. Identify the type of support you feel you need and the people who could help you gain this support. The people in your support group should make you feel good about yourself. They should encourage you to complete and perform well on tasks. For example, if you state you are going to start an exercise program, your support group should encourage you to start the program and continue it for good health.
2. Make sure you have access to your support group. The people in your support group should be people you see frequently and have easy access to. They must be predictable and dependable.
3. Examine the support groups you may currently have. Ask yourself if these people make you feel good about who you are, and if they encourage you to set and reach new goals.

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APPENDIX F

Exercise-only Handouts

1

Organizational Skills (Participant)

Being organized is a key component for “survival” in college, work, and in life. College students should develop organizational skills. Being organized can help you perform tasks and assignments with more efficiency and promptness.

Monthly planners are often utilized for time management and organization of events occurring on a day-to-day bases, a weekly bases, and a monthly bases. Being organized will help you keep track of tests dates, when assignments and readings are due, and when to allow for study times and study groups.

Organizing class notes will help you when it is time to study for an exam. Keep a notebook for each class of all notes, lectures, handouts, and readings discussed in that class. This is usefully in keeping your classes separate and not losing important information from these classes. Keeping a notebook will help you stay organized in classes throughout the semester and will make it easier to study when it comes time for semester finals. Learning to be organized, while in college, will help you be organized in future careers and job opportunities.

Tips

1. You should utilize good quality time management skills. Estimate the time it will take for activities and make schedules to keep yourself caught up with all of your activities.
2. Monthly planners are a great way to keep up with when projects are due, when tests are coming up, and when reading assignments are due for each class.
3. Keeping a notebook in each class will help prevent loss of important information discussed in each class and will also help you study for exams.

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2

Time Management (Participant)

In the world today, time is valuable and there does not seem to be enough of it. College students are often involved with finding time for work, school, sports, relationships, and other activities. Being able to manage time is a critical skill college students need to develop.

Making daily and weekly schedules are ways to start managing your time. Scheduling keeps you on track of how much time you can afford to devote, or need to devote, to events and activities on a daily, weekly, and monthly basis. Getting a monthly planner can help you plan for daily and weekly events.

Managing your time also involves making choices on what activities require the most time and what activities are the most important to you. Prioritizing your activities may be a first step in time management. Make a list of all your activities and responsibilities. Then, approximate how much time may be needed to complete and uphold these activities and responsibilities. Creating schedules to manage your time may help lower your stress and anxieties in a world that is constantly on the go.

Tips

1. Utilize a planner and daily and weekly schedules.
2. Prioritize all activities and responsibilities you have in your life.
3. Make choices of which activities are more important to you and schedule enough time for these activities.
4. Do not “spread yourself to thin.” Do not take on more responsibilities if you are already having trouble performing the responsibilities you already have.

Enhance Memory

Memory is defined as recalling something from the past or present. Memory occurs through sensory, short-term, and long-term memory systems. Sensory memory requires the learner to attend to stimuli in the environment. Sensory memory only lasts a couple of seconds. Short-term memory involves storing and processing information received by the sensory memory. Short-term memory is also called the working memory because it serves as the interactive workspace for decision-making, problem solving, and for interpreting information. Long-term memory is a more permanent storage of information and consists of rehearsed and processed information. Long-term memory is what we usually think of when talking about memory.

To improve memory a person must learn to pay attention. Attention is the process by which we notice important information and ignore unimportant stimuli or information. Visual codes may help with memory. Visual codes are pictures a person forms in his or her mind. For example, visual codes may help us retract our steps when we lose our car keys. Also to improve memory, you can make information you are trying to learn meaningful to you. New information may have more meaning for you, if you can compare it to something you already know or have an interest in. Writing information down may help us remember information, too. We tend to remember the first and last items on a list. Therefore, be sure to closely rehearse the middle information on the list so that this information is not forgotten.

Tips

1. Pay close attention to important information and ignore unimportant information
2. Use visual codes to help you remember information.
3. Make newly learned information meaningful to you.
4. Write information down, and be sure to closely rehearse the information in the middle of the page.

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Improving Learning and Note-taking in Class (Participant)

Before class, make sure you have read all the readings and handouts to be discussed that day in class. Take notes about the materials you read, and write down questions that come up as you are reading the material. This makes it easier for you to follow along with the professor as the new material is being discussed in class. Being prepared for each class will help you to be a more active participant in class.

In class, you should take notes on the major concepts discussed. You can add more detail to your notes later if necessary. Listen and think about the information being presented, and then write a brief summary, in your own words, of the information. Be an active participant by sharing your ideas and questions with the class. By participating, you will be actively processing the information discussed in class more deeply.

After class, summarize all your notes. Share and compare your notes with others in the class. This helps decrease misconceptions about the information discussed in class and provides you with the opportunity to add material you might have missed during class. Be sure to read your previous notes from the last class before the present class time. This helps you not to forget the previous information learned in the class and helps you store the information to memory.

Tips

1. Read previous notes from last class before the next class.
2. Read all assignments to be discussed that day in class.
3. Take notes on major concepts.
4. Summarize what is being presented in class, and in your own words, write a brief summary of this information.
5. Be an active participant: share your thoughts, ideas, and questions with class.
6. Share your notes with others to add any material you might have missed in class.

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Improving Study Habits and Test Taking (Participant)

When studying for a test the most important thing to remember is **don't procrastinate!** Follow a study schedule. Set aside time everyday to review notes and other materials for classes. You should study dissimilar information "back to back" to decrease confusion.

Study where there are not distractions. You should find a location to study where you can fully concentrate. The library is an excellent place for studying. It is quiet and stays open late for those of us who still may put off studying until the last minute.

Plan for refresher breaks when studying. You might want to study one subject for a while and then switch to a different subject. You may want to take a quick 10 or 15 minute TV or telephone break. Refresher breaks should be short but these breaks may help you get more quality from your studying. Quality rather than quantity is the key when studying!

When it is time for the test, go into the test with a positive attitude. Remember that a test is just another challenge in the learning process and is your opportunity to show off your skills and knowledge. During the test, be sure to read and follow the directions. Make more time for questions that may be worth more points. Return to the more difficult questions later, and go back through the test and check your answer if you have time. For multiple-choice questions, read all the possible answers and select the response, which best answers the question. For short answer questions, make sure you understand what the question is asking. It may be helpful to create a short outline to organize your thoughts on how to answer the question. Be as clear and specific as you can be when answering the question.

Tips

1. Follow a study schedule to avoid procrastination.
2. Find a location to study with few distractions.
3. Plan refresher breaks during study times.
4. Read all directions on the test carefully.
5. Make more time to answer questions that are worth more points and check your answers if you have time.
6. Multiple-choice: read all possible responses and chose the response that best answers the question.
7. Short answer/essay: make sure you understand what the question is asking and create a short outline to organize your thoughts when answering the question.

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Preparing for Speeches and Presentations (Participant)

Performing speeches and presentations may cause people stress and anxiety. Standing up in front of people to give a speech or presentation, may cause you to feel afraid, anxious, and worried about failing. There are ways to help you overcome fears of public speaking and help you become a better speaker and presenter.

To prepare for a speech or presentation, write out what you want to present to your audience. You can create a detailed outline of what you wish to say to the audience. Write out your main ideas and concepts you want the audience to learn and the details that support your major concepts. Providing examples in your speeches and presentations is often helpful to the audience.

Practice memorizing your speech or presentation, and then, write down a very brief outline of what you are presenting on note cards. Practice the speech or presentation in front of a mirror. This helps you to memorize the presentation and helps you practice looking up from your note cards so you can make eye contact with your audience. Remember to look up from your note cards. If you do not want to look people in the eye, find a place on the back wall of the room to stare at so it appears that you are making eye contact with the audience.

Practice your presentation in front of friends. Friends may provide you with helpful ideas to improve your speech or presentation. You may want to practice the presentation in the room you will be in when you present your speech. This will give you a “feel” for what it will be like, “in real life,” when you perform your speech or presentation.

Tips

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Working in Groups

In classes we are often asked to perform projects in groups. Are you one of the people who do all the work or do you let other members of the group “pull your weight” and do your part of the work? A well-developed group is made up of people, all working together, to achieve a goal. In this case, the goal should be to achieve a good grade on the group project. All members of a group project should have equal amounts of work to do to get the project done efficiently and promptly.

The group should decide together, what are the best times during the week to meet as a group to keep up with each others progress and discuss any problems that might be occurring. A group schedule should include meeting times for the group and a time line of when information needed for the project is due by each group member. This will help all the members avoid procrastinating and not doing their part in creating a great project. The group may need to discuss consequences for members who do not have their part of the work and information to the group done by dead-lines.

When problems occur, the group needs to address them quickly. All members should try to find solutions to these problems in order to keep the project moving. All members should provide contact information so that everyone can be contacted, if

needed, while trying to complete the group project.

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Tips for doing Research (Participant)

A lot of people panic when they hear the word “research,” or even worse, “research paper.” Having to do a research paper is common in many courses; however, doing research does not have to be hard.

The first thing you should do is, think of topics that have your interest and make a list of these topics. Then, go to the library and begin searching for articles about these topics. One of the best sites to find articles is on the internet and is called Galileo. You may need to start with more general topics and then search for more specific topics. For example, if you are interested in nutrition you may look up the word nutrition. There may be as many as 100 articles that appear with the word nutrition in them. So, your next step is to enter a more specific topic about nutrition. Some examples might be, nutrition for athletes, nutrition for females, or nutrition for teenagers.

Print out articles that are the most closely related to your topic. Read the articles carefully. Pay attention to the other studies that are mentioned in the articles you are reading. You can flip to the article’s reference pages and scan the references used by the author or authors of the article you are reading. The articles listed on the reference pages may be articles you could use for your research. When possible, use the most current research articles. These articles have the most up to date information dealing with your topic of choice. Do not forget to ask your professors for advice on where to look for information about the topic you have chosen. Professors often times have text books, articles, and theses, from past students, which may have valuable information you could use in your research.

Doing research does not have to be hard and stressful. Use the library and

professors as resources to guide you in the correct direction to find information about your topic or idea. Remember, research takes time so start searching for information soon, and do not wait until last the last minute to start your research project.

Tips

1. Make a list of topics that interest you.
2. Begin searching for information about these topics and other topics that are related to your ideas.
3. Read over the reference pages of the articles you read to find other studies and articles about your topic and ideas.
4. Remember to use the library and your professors as resources to guide you.

*** If you have any questions, please contact Lisa A. Scott at (912) 871-1994 or at lscott13@georgiasouthern.edu. When you call, mention that you are in her study. You don not have to give your name. Ms. Scott's office hours are Monday 8:30 a.m. - 9:30 a.m., Tuesday 9:30 a.m. - 10:30 a.m. and 2:30 p.m. - 3:30 p.m., Wednesday 8:30 a.m. - 9:30 a.m., and Thursday 9:30 a.m. - 10:30 a.m. and 12:30 p.m. - 2:30 p.m. In case of an emergency call (912) 587-3540.

Tips for doing Research (Instructor)

A lot of people panic when they hear the word “research,” or even worse, “research paper.” Having to do a research paper is common in many courses; however, doing research does not have to be hard.

The first thing you should do is, think of topics that have your interest and make a list of these topics. Then, go to the library and begin searching for articles about these topics. One of the best sites to find articles is on the internet and is called Galileo. You may need to start with more general topics and then search for more specific topics. For example, if you are interested in nutrition you may look up the word nutrition. There may be as many as 100 articles that appear with the word nutrition in them. So, your next step is to enter a more specific topic about nutrition. Some examples might be, nutrition for athletes, nutrition for females, or nutrition for teenagers.

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Doing research does not have to be hard and stressful. Use the library and

professors as resources to guide you in the correct direction to find information about your topic or idea. Remember, research takes time so start searching for information soon, and do not wait until last the last minute to start your research project.

Tips

1. Make a list of topics that interest you.
2. Begin searching for information about these topics and other topics that are related to your ideas.
3. Read over the reference pages of the articles you read to find other studies and articles about your topic and ideas.
4. Remember to use the library and your professors as resources to guide you.

DO NOT READ TO CLASS

*** If you have any questions, please contact Lisa A. Scott at (912) 871-1994 or at lscott13@georgiasouthern.edu. When you call, mention that you are in her study. You don not have to give your name. Ms. Scott's office hours are Monday 8:30 a.m. - 9:30 a.m., Tuesday 9:30 a.m. - 10:30 a.m. and 2:30 p.m. - 3:30 p.m., Wednesday 8:30 a.m. - 9:30 a.m., and Thursday 9:30 a.m. - 10:30 a.m. and 12:30 p.m. - 2:30 p.m. In case of an emergency call (912) 587-3540.

APPENDIX G

Debriefing Information for all Three Groups

Study Summary (BEE)

There were three groups used in this study. The EO, or exercise-only groups, participated in the physical activity classes and received handouts that dealt with work skills. The BEE, or brief education plus exercise groups, participated in the physical activity classes and received brief education handouts about topics such as body image concerns, eating disorders, exercise and nutrition, and social physique anxiety. The control group did not receive any handouts. This group completed the Social Physique Anxiety scale three times during the study as did the EO and BEE groups. The purpose of this study was to examine if there would be a significant change in social physique anxiety among the two groups and if the brief education plus exercise groups showed more decrease in social physique anxiety compared to the exercise-only groups. This class was in the brief education plus exercise group. If you wish to obtain the handouts that were provided to the exercise-only groups, please contact Lisa Scott. Ms. Scott thanks you for your participation in the process of this study. If you have any additional questions, you may contact Ms. Scott at (912) 871-1994 or lscott13@georgiasouthern.edu.

Study Summary (EO)

There were three groups used in this study. The EO, or exercise-only groups, participated in the physical activity classes and received handouts that dealt with work skills. The BEE, or brief education plus exercise groups, participated in the physical activity classes and received brief education handouts about topics such as body image concerns, eating disorders, exercise and nutrition, and social physique anxiety. The control group did not receive any handouts. This group completed the Social Physique Anxiety scale three times during the study as did the EO and BEE groups. The purpose of this study was to examine if there would be a significant change in social physique anxiety among the two groups and if the brief education plus exercise groups showed more decrease in social physique anxiety compared to the exercise-only groups. This class was in the exercise-only group. If you wish to obtain the handouts that were provided to the brief education and exercise groups, please contact Lisa Scott. Ms. Scott thanks you for your participation in the process of this study. If you have any additional questions, you may contact Ms. Scott at (912) 871-1994 or lscott13@georgiasouthern.edu.

Study Summary (Control)

There were three groups used in this study. The EO, or exercise-only groups, participated in the physical activity classes and received handouts that dealt with work skills. The BEE, or brief education plus exercise groups, participated in the physical activity classes and received brief education handouts about topics such as body image concerns, eating disorders, exercise and nutrition, and social physique anxiety. The control group did not receive any handouts. This group completed the Social Physique Anxiety scale three times during the study as did the EO and BEE groups. The purpose of this study was to examine if there would be a significant change in social physique anxiety among the two groups and if the brief education plus exercise groups showed more decrease in social physique anxiety compared to the exercise-only groups. This class was the control group therefore, no handouts were provided. If you wish to obtain the handouts provided for the brief education plus exercise groups and/or the handouts provided for the exercise-only groups, please contact Lisa Scott. Ms. Scott thanks you for your participation in the process of this study. If you have any additional questions, you may contact Ms. Scott at (912) 871-1994 or lscott13@georgiasouthern.edu.

APPENDIX H

Extended Review of Literature

Body Image and Dissatisfaction

Body image and social physique anxiety are two concerns among college men and women, and are even more prominent in women. College women tend to report greater body dissatisfaction than college men, and the results of one study revealed that even women with low body image concerns had a strong desire to want to be thinner (Lokken, Ferraro, Kirchner, & Bowling, 2003).

Cook-Cottone and Phelps (2003) stated that by decreasing body dissatisfaction eating disorders would also decrease among the college population. In this study, risk and protective factors were explored in college women to aid in reducing eating disorders and decrease body image concerns. The results of this investigation indicated that physical self-concept may be the strongest protective factor in decreasing the prevalence of eating disorders among college women. A second factor was the drive for thinness. About 52 % of the variance in body dissatisfaction was accounted for from this risk factor drive for thinness. Cottone and Phelps suggested that body dissatisfaction may have an effect on social situations and the need for social approval.

Media Influence on Body Image

Men have been shown to be falling victim to the “appearance plague” that women have been subjected to by society (Agliata & Tantleff-Dunn, 2004). Men have succumbed to the Adonis complex which has led to efforts to build muscle and stay lean (Pope, Phillips, & Olivardia, 2000). The most influential factor in forming, strengthening, and activating stereotypes has been the media (Agliata & Tantleff-Dunn). Television advertisements may have an impact on men’s body images by sending messages that lead to stereotyped perceptions that are inaccurate for men’s body images. The study assessed the impact of television advertisements on male body image. The results showed that

exposure to media images of the ideal male body may have harmful effects on body image and mood in adult men. Exposure to television advertisements that portrayed the muscular ideal images of attractiveness for men may significantly increase muscle dissatisfaction. Significant increases in depression also occurred when viewing ideal male body images. The study suggested that men, regardless of their schemas, were reactive to appearance-related cues in the media and may interpret these cues at face value. This may lead to depression and increased body image concerns and dissatisfaction in adult men (Agliata & Tantleff-Dunn).

The media has shown to influence body image concerns in women and has transmitted the thin-ideal to women. This thin-ideal has shown to foster body dissatisfaction because the ideal is unattainable for most women (Thompson & Stice, 2001). Other negative affects may occur from this thin-ideal because in our culture appearance is a central evaluation dimension for women. The thin-ideal showed to possibly predict the onset of eating disorders such as bulimia nervosa and other eating pathologies. Thin-ideal internalization predicted increases in body image concerns and body dissatisfaction. Variables that showed to moderate the destructive effects of internalization included self-esteem, tendency to compare appearance with others appearance, and exposure to media (Thompson & Stice).

Along with television media, magazines have shown to influence body image perceptions among adult women (Pompper & Koenig, 2004). Magazines have overvalued a thin body image as an acceptable standard for female appearance. Women confirm the importance of thinness and become motivated to achieve this unrealistic thinness when they compare themselves to body images in fashion magazines (Pompper & Koenig).

A somewhat new form of media influence has emerged for women, which is a focus on sports and athleticism (Thompson, Berg, Roehrig, Guarda & Heinberg, 2004). Much of the mass media in the past has been in women's fashion magazines. Over the past decade, newer magazines show a shift in the ideal body type for women. The shift is to a sporty, athletic appearance. The media has influenced not only dieting behaviors but also initiation of exercise programs, as well (Thompson et al.). Body image concerns and dissatisfaction may lead to additional problems such as anxiety.

Social Physique Anxiety Scale

Having body image concerns may cause some individuals to feel uncomfortable in social settings. Feeling anxious when one believes others are evaluating his or her body, particularly in a negative manner, is referred to as social physique anxiety (Hart, Leary, & Rejeski, 1989). Social physique anxiety is a subtype of social anxiety but is more related to how one feels about his or her body. The original scale to measure social physique anxiety contained 12 items and is a Likert-type scale with anchors of not at all to extremely (Hart et al.). Problems arose in the utilization of this scale.

McAuley and Burman (1993) conducted an investigation on the construct validity of the 12-item Social Physique Anxiety Scale (SPAS). All items contained in the 12-item scale had significant factor loadings representing a single factor model except item 2. Goodness of fit tests suggested that the fit of the data for the unidimensional model could be improved for the 12-item SPAS (McAuley & Burman, 1993). One study showed that the higher-order model with two first-order factors underlying a single second-order factor had the best fit for measuring social physique anxiety (Eklund, Mack, & Hart, 1996). Feelings of physique presentation discomfort represented the first factor and expectations of negative evaluation of one's body by others represented the second

factor. Eklund et al. (1996) stated concerns with the face validity of the scale and suggested further investigation. Studies conducted on the validity of the SPAS among men and women revealed the 12-item SPAS was represented by the higher-order model for both men and women, and modifying item 2 appeared to resolve the inconsistency of responses for that particular item (Eklund, Kelley, & Wilson, 1997; Petrie, Diehl, Rogers, & Courtney, 1996).

Martin, Rejeski, Leary, McAuley, and Bane (1997) investigated whether the 12-item two factor model or the 9-item single factor model was more accurate with measuring social physique anxiety. Items 1 and 5 were discarded because these items related to body satisfaction, and item 2 was removed because it created confusion among participants and had consistently loaded weaker than all the other items on the SPAS. The 9-item single factor model appeared to have a better fit for measuring SPA (Martin et al.). Motl and Conroy (2000) suggested that the 9-item SPAS was a compatible model for measuring social physique anxiety, but the scale needed improvements.

Positive and negative worded items on the 9-item SPAS created error in scoring (Motl, Conroy, & Horan, 2000). To produce a better fit for both men and women when measuring social physique anxiety, items 11 and 12 were eliminated from the 9-item scale yielding a 7-item scale (Motl et al., 2000).

Social Physique Anxiety

SPA may cause individuals to avoid certain social and exercise settings. Lantz and Hardy (1997) investigated the relationship between SPA and exercise behavior. The results indicated that individuals with higher levels of SPA may shun from exercise settings where their bodies may be evaluated by others, especially if these individuals feel their bodies will be evaluated negatively. This fear of presenting a negative physical

self-image in front of others may lead people with high SPA to not participate in exercise which would actually help these people to be look and feel more physically fit (Lantz & Hardy).

Russell and Cox (2003) examined how perceived weight discrepancy may predict SPA and body dissatisfaction among Caucasian and African-American college women. Weight discrepancy did predict SPA in Caucasian women but did not predict SPA in African-American women. Weight discrepancy however, was important in predicting body dissatisfaction for both races (Russell & Cox).

Another study investigated predictors of SPA among female college athletes and exercisers (Krane, Stiles-ShIPLEY, Waldron, & Michalenok, 2001). The results revealed that body dissatisfaction and drive for thinness were the strongest predictors for SPA for both athletes and exercisers. Perfectionism was also a predictor for SPA. In this study, perfectionism was positively related to drive for thinness among the exercisers but not among the athletes (Krane et al.).

Body image disturbances and body image concerns have shown to create anxiety, and eating disorders may result from body image concerns (Stoll & Alfermann, 2002). To decrease body image concerns and SPA among men and women Stoll and Alfermann examined the effects of physical exercise on body self-concept and well-being among men and women 50 years old or older. The exercise program lasted 14 weeks with 60-75 minute sessions weekly. There was a significant improvement in body self-concept for participants in the experimental group. Resources evaluation and well-being variables showed no significant improvements among participants (Stoll & Alfermann).

Bacon et al. (2002) examined the effects a non-diet wellness intervention had on psychological factors, eating, and activity behaviors in older women. The results showed

that a non-diet program was an effective program for improving health. The non-diet program contained five aspects of treatment: body acceptance, eating behavior, activity, nutrition, and social support. The non-diet participants reported feeling more successful and felt better about themselves compared to participants in the diet group. These participants also reported higher self-esteem than participants in the diet group (Bacon et al.).

Other studies have attempted to decrease body image and SPA by utilizing an education or cognitive-behavioral approach. Nicolino, Martz, and Curtin (2001) utilized a cognitive-behavioral therapy (CBT) intervention to attempt to improve body image and decrease dieting among college women. There were five experimental groups consisting of 7-10 women. The participants in each group complete the Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1986), Cognitive-Behavioral Dieting Scale (Martz, & Bazzini, 1999), Physical Appearance State Anxiety Scale (Reed, Thompson, Brannick, & Sacco, 1991), and the Goldfarb Fear of Fat Scale (Goldfarb, Dykens, & Gerrard, 1985) and then engaged in a two-hour group session intervention modeled after the (CBT) body image therapy of Thompson (1996). Participants completed all the measures again after one month. It was hypothesized that the scores on the scales used in this study would decrease after the intervention. However, none of these variables decreased significantly, although, there was a trend in decreasing dieting among participants (Nicolino et al.).

An education program, containing information about external influences on body image, mediating influences, internal influences, and strategies for addressing the influences on body image, was utilized to aid in decreasing body image concerns (Paquette, Leung, Staats, & Raine, 2002). Sessions were held biweekly over a six-month period. The results indicated that body image was positively impacted among

participants. Women also engaged in less dysfunctional eating patterns and were less affected by family and friends' messages regarding thinness.

Brief (Time-limited) Interventions

An emerging trend in therapy is brief or time-limited interventions. Brief interventions may offer accelerated treatments that are just as effective as long-term treatments. Brief interventions for dependent drinkers have shown to be effective regardless of client age and gender (Fleming, & Manwell, 1999). These interventions have shown to decrease drinking levels, ameliorate social problems involved with problematic drinking, and aid in the problem of costs for treatments. Roche and Freeman (2004) stated brief interventions have shown to aid a number of drug related problems as well as alcohol related problems.

Interpersonal psychotherapy (IPT) is a brief therapy utilized with adults diagnosed with major depression (Moreau, Mufson, Weissman, & Klerman, 1991). IPT was utilized to identify interpersonal problem areas and resolve the problems within these areas that are connected with the depression. The four interpersonal areas utilized by IPT are interpersonal deficits, role transition, interpersonal role disputes, and grief. IPT has been modified to IPT-A to treat adolescent depression (Moreau et al.). IPT-A added a fifth problem area, single-parent families, to the interpersonal areas to be investigated and address issues specific to concerns and circumstances adolescent face (Moreau et al.).

IPT-A is a time-limited therapy requiring a once a week, 12-week treatment (Mufson & Moreau, 1998). A meta-analysis examining the effectiveness of IPT-A on adolescent depression showed that adolescents had a substantial reduction in depressive symptoms and improved general functioning (Mellin & Beamish, 2002). Adolescents with moderate to severe depression reduced depressive symptoms and increased global

functioning after receiving IPT-A treatment (Mellin & Beamish). Mufson and Fairbanks (1996) examined relapse rates of adolescents after receiving the IPT-A treatment. The results concluded that the IPT-A therapy was effective over a one-year period directly following the conclusion of the treatment (Mufson & Fairbanks, 1996).

Reynolds et al. (1996) compared an 8-session treatment with a 16-session treatment for patients with depression. The results showed more positive sessions were more rapid in the eight-session treatment for both the PI and CB treatments. Copeland, Swift, Roffman, and Stephens (2001) investigated the effects a one-session ultra brief CB treatment and a six-session CB treatment had on teaching skills to enhance cannabis cessation and abstinence maintenance. The results showed both treatments to be beneficial (Copeland et al.). Kunik et al. (2001) compared a 2-hour ultra brief group CB session and a group health education session for elderly patients with chronic obstructive pulmonary disease. The CB treatment revealed greater reductions in depression and anxiety compared to the group health education treatment (Kunik et al.). Barkham et al. (1999) developed a “2 + 1” model consisting of two sessions one week apart and followed by a session three months later for patients with subsyndromal depression. Results showed a large effect of treatment after two sessions. The average patient’s score had decreased from 2.04 standard deviations to within .25 standard deviations. The initial two sessions showed clinical improvements from 43% to 65%. The full three-session treatment showed improvements of 53% to 72% (Barkham et al.).

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APPENDIX I

Informed Consent

Health and Human Sciences

COLLEGE

Jiann-Ping Hsu School of Public Health

DEPARTMENT

INFORMED CONSENT

If you are 18 years old or older, for the next six weeks you will have the opportunity to participate in the present study. You will be asked to attend all the physical activity classes and read the brief educational handout that will be provided once a week by your instructor. There is no penalty for not participating and no penalty for early withdrawal from this study. By signing this form you are providing your consent to participate in this study. The second copy of the informed consent is for you to keep for your records. If you have any questions please contact Lisa A. Scott at (912) 871-1994 or lscott13@georgiasouthern.edu. You may contact the faculty advisor Dr. Kevin L. Burke at 681-5267 or kevburke@georgiasouthern.edu. In case of an emergency call (912) 587-3540. Thank you for participating in this study.

Name: _____ Date: _____

Health and Human Sciences

COLLEGE

Jiann-Ping Hsu School of Public Health

DEPARTMENT

INFORMED CONSENT (Health Class)

If you are 18 years old or older, for the next six weeks you will have the opportunity to participate in the present study. You will be asked to complete a short questionnaire, three times, during a six week period. There is no penalty for not participating and no penalty for early withdrawal from this study. By signing this form you are providing your consent to participate in this study. The second copy of the informed consent is for you to keep for your records. If you have any questions please contact Lisa A. Scott at (912) 871-1994 or lscott13@georgiasouthern.edu. You may contact the faculty advisor Dr. Kevin L. Burke at 681-5267 or kevburke@georgiasouthern.edu. In case of an emergency call (912) 587-3540. Thank you for participating in this study.

Name: _____ Date: _____

APPENDIX J

IRB Forms

IRB COVER SHEET

Reason for Submission: <input checked="" type="checkbox"/> New Project <input type="checkbox"/> Responding to Comment <input type="checkbox"/> Reconsideration <input type="checkbox"/> Disapproval Resubmission <input type="checkbox"/> Modification <input type="checkbox"/> Renewal <input type="checkbox"/> Adverse Event	TO BE COMPLETED BY IRB STAFF: IRB #: DATE STAMP:
PART A – PROTOCOL/INVESTIGATOR/COORDINATOR INFORMATION	
Title of Study: The Effects of Exercise and Brief Educational Interventions on SPA among College Men and Women	
Principal Investigator (name): Lisa A. Scott Title of Principal Investigator: <div style="text-align: right;"> University Status: <input type="checkbox"/> Faculty <input type="checkbox"/> Staff <input checked="" type="checkbox"/> Graduate Student <input type="checkbox"/> Undergraduate Student </div>	
Address of Principal Investigator: 3698 GA HWY 24 Apt. 106-B Statesboro, GA 30461 GSU College/School: Health and Human Sciences GSU Department: Jiann-Ping Hsu School of Public Health Phone number: (912) 587-3540 e-mail address: Frggybud79@hotmail.com	
FAX NUMBER(s) WHERE THE APPROVAL LETTER SHOULD BE SENT: NOTE: HARD COPIES ARE NOT SENT UNLESS THERE IS NO FAX NUMBER LISTED	
Co-Investigators (names, phone numbers, e-mail addresses): 	
Faculty Advisor or Study Coordinator's Name: Dr. Kevin L. Burke Address: Phone number: 681-5267 e-mail address: kevburke@georgiasouthern.edu Has the primary investigator and all personnel gone through human subject training? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
PART B – LEVEL OF RISK/TYPE OF REVIEW REQUESTED	
Level of Risk: <input checked="" type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> High	
Type of Review Requested: <input type="checkbox"/> Full Board <input checked="" type="checkbox"/> Expedite <input type="checkbox"/> Exempt If exempt, please fill out and attach the Exempt Status Questionnaire.	
PART C – RECRUITMENT INFORMATION	

Will data be collected on site or is this a study from another location?

X On Site

Another location - Approval from remote location to collect data should be attached

Number of subjects to be enrolled at this site:

Please note: the IRB considers a subject to be enrolled if s/he signs an informed consent document. If a higher number of subjects must be enrolled for screening in order to hit a targeted number of subjects completing the study, please indicate the higher number and the permission to collect at the location.

475

Are any of the following being used as screening/inclusion or exclusion criteria (check all that apply)? Race Color Sex Sexual orientation National origin Religion

Age Veteran status Political affiliation Disability

Age Range all Subjects: 18 years old and above

Duration of Study Per Subject: Eight weeks

Duration of Study (entire study): Eight weeks

PART D – PROJECT INFORMATION

What are the anticipated start and end dates?

a. Start date: Beginning of October 2004
2004

b. End date: December 10,

Are Recruitment Incentives Being Used: Yes No

Is this a class project? Yes No

Is this either a thesis or a dissertation? Yes No

Are there any grants or sources of support for this project?

Yes** No **If yes, please complete part E

PART E – SOURCE OF SUPPORT

Indicate all applicable sources of support and the sponsor:

- Federal*/State/Other Government Agency – Sponsor: _____
- Commercial – Sponsor: _____
- Non-Profit Organization/Foundation – Sponsor: _____
- GSU Funding Source: _____
- Other (specify) – Sponsor: _____
- No support

***If federal funding, please provide a copy of the entire grant application.**

PART F: CONFLICT OF INTEREST

- Does the principal investigator or any co-investigator (or any member of their immediate family):
- a. own or control any equity interest in any drug, device or technology, or materials involved in this research study? Yes* No
 - b. have a financial interest in any listed source of external support? Yes* No
 - c. function as an advisor, employee, officer, director, or consultant for any listed commercial source of external support? Yes* No

***If yes, please attach detailed information to permit the IRB to determine if such involvement should be disclosed to potential research subjects.**

PART G: ADDITIONAL APPROVALS REQUIRED

1. Has this protocol been previously reviewed by a scientific review committee?
 Yes (Please attach an approval letter) No(Indicate the reason)
2. Does this protocol involve the exposure of human subjects to ionizing radiation (excluding the use of standard diagnostic or treatment procedures, performed in a routine clinical manner and frequency)?
 Yes * No

***If yes, the protocol must be reviewed and approved by GSU’s biohazard committee.**

PART H: CREDENTIALING – DEPARTMENT/DIVISION CHAIR APPROVAL

FOR RESEARCH PROCEDURES CONDUCTED WITHIN A GEORGIA SOUTHERN
UNIVERSITY FACILITY: I have reviewed this human subject research proposal and have
determined that the listed investigators are members or associates of the university whose job
descriptions and/or competencies qualify them to perform the procedures outlined in the research
proposal.

Department/Division Chair

Date

CERTIFICATION OF INVESTIGATOR RESPONSIBILITIES

By signing below I agree/certify that:

1. I have reviewed this protocol submission in its entirety and I state that I am fully cognizant of, and in agreement with, all submitted statements and that all statements are truthful.
2. This application, if funded by an extramural source, accurately reflects all procedures involving human participants described in the proposal to the funding agency previously noted.
3. I will conduct this research study in strict accordance with all submitted statements except where a change may be necessary to eliminate an apparent immediate hazard to a given research subject.
 - a. I will notify the IRB promptly of any change in the research procedures necessitated in the interest of the safety of a given research subject.
 - b. I will request and obtain IRB approval of any proposed modification to the research protocol or informed consent document(s) prior to implementing such modifications.
4. I will ensure that all co-investigators, and other personnel assisting in the conduct of this research study have been provided a copy of the entire current version of the research protocol and are fully informed of the current (a) study procedures (including procedure modifications); (b) informed consent requirements and process; (c) anonymity and/or confidentiality assurances promised when securing informed consent (d) potential risks associated with the study participation and the steps to be taken to prevent or minimize these potential risks; (e) adverse event reporting requirements; (f) data and record-keeping requirements; and (g) the current IRB approval status of the research study.
5. I will not enroll any individual into this research study: (a) until such time that the conduct of the study has been approved in writing by the IRB; (b) during any period wherein IRB renewal approval of this research study has lapsed; (c) during any period wherein IRB approval of the research study or research study enrollment has been suspended, or wherein the sponsor has suspended research study enrollment; or (d) following termination of IRB approval of the research study or following sponsor/principal investigator termination of research study enrollment.
6. I will respond promptly to all requests for information or materials solicited by the IRB or IRB Office.
7. I will submit the research study in a timely manner for IRB renewal approval.
8. I will not enroll any individual into this research study until such time that I obtain his/her written informed consent, or, if applicable, the written informed consent of his/her authorized representative (i.e., unless the IRB has granted a waiver of the requirement to obtain written informed consent).

9. I will employ and oversee an informed consent process that ensures that potential research subjects understand fully the purpose of the research study, the nature of the research procedures they are being asked to undergo, the potential risks of these research procedures, and their rights as a research study volunteer.
10. I will ensure that research subjects are kept fully informed of any new information that may affect their willingness to continue to participate in the research study.
11. I will maintain adequate, current, and accurate records of research data, outcomes, and adverse events to permit an ongoing assessment of the risks/benefit ratio of research study participation.
12. I am cognizant of, and will comply with, current federal regulations and IRB requirements governing human subject research including adverse event reporting requirements.
13. I will notify the IRB within 24 hours regarding any unexpected study results or adverse events that injure or cause harm to human participants.
14. I will make a reasonable effort to ensure that subjects who have suffered an adverse event associated with research participation receive adequate care to correct or alleviate the consequences of the adverse event to the extent possible.
15. I will notify the IRB prior to any change made to this protocol or consent form (if applicable).
16. I will notify the IRB office within 30 days of a change in the PI or the closure of the study.

Lisa A. Scott _____
Principal Investigator Name (typed) **Principal Investigator Signature** **Date**

Dr. Kevin L. Burke _____
Faculty Advisor Name (typed) **Faculty Advisor Signature*** **Date**

***Faculty signature indicates that he/she has reviewed the application and attests to its completeness and accuracy**

Office of Research Services & Sponsored Programs
P.O. Box 8005
Statesboro, GA 30458
(912) 681-5465
Fax: (912) 681- 0719



GEORGIA SOUTHERN
UNIVERSITY

APPLICATION FOR THE USE OF HUMAN SUBJECTS

***** ALL RESPONSES MUST BE TYPED *****

1. **ABSTRACT:** Provide a brief description of the proposed project (e.g., purpose, hypotheses, methodology, etc.). This description should be written in lay language or language understood by a person unfamiliar with your area of research. (Responses must be typed.)

OFFICE USE ONLY

IRB

The purpose of this study is to examine the effects exercise and brief educational interventions have on social physique anxiety (SPA). Social physique anxiety is defined as feeling anxious when one believes others are evaluating his or her body, particularly in a negative manner (Hart, Leary, & Rejeski, 1989). The hypothesis is that the exercise and educational interventions group will decrease SPA more than the exercise only group.

Students in the aerobics and jogging physical activity classes will be asked to participate in this study. Consent forms will be provided to all volunteer participants and will be returned to the researcher by the physical activity instructors, once the forms are signed by all participants. Half of the classes utilized in this study will receive the brief educational intervention about SPA and the other half will receive brief education on college skills such as organization, time management, and study habits. The instructor of the physical activity class will present the five to six minute brief education intervention at the beginning or at the end of the physical activity class one day a week on the same day and time every week. The instructor will be provided with a packet containing the educational handouts that will be read out loud to the class. The packets will contain topics such as body image, body image perceptions, media's influence on body image, SPA and exercise, eating disorders and SPA, enhancing self-esteem, exercise and proper nutrition, and building a social

support network (see attached handouts). The exercise only group will meet for five to six minutes at the beginning or at the end of the physical activity class like the brief education group but, this group will discuss topics such as time management skills, organizational skills, enhancing memory, improving learning and note taking, improving study habits and test taking, preparing for speeches/presentations, working in groups, and conducting research.

All participants will complete the 7-item social physique anxiety scale (SPAS-7) on the first day of the study. Participants will write the last four digits of their social security numbers on the right top corner of the SPAS-7 to protect confidentiality. After four weeks the participants will complete the SPAS-7 a second time. Participants will write down how many exercise classes were missed and how many education classes were missed during these four weeks. On the last day of the experiment the participants will complete the SPAS-7 for the third time. Participants will write down how many total exercise and education classes were missed during the eight weeks of this study. Participants who missed more than two exercise classes during the eight weeks and/or missed more than one education class will be excluded from the study.

When the study is completed, the exercise only group who received the education pertaining to college skills, will receive a packet with the same information the exercise and brief educational intervention group received during the study.

- A. Does the focus of the study involve the administration or manipulation of drugs or any other substances? Yes** No

****If YES, please complete Appendix A**

- B. Does the study involve the collection of any biological samples (e.g., human tissue, blood, body fluids)? Yes** No

****If YES, please complete Appendix B**

- C. Does the study involve any physical activity beyond that normally experienced in everyday life? Yes** No

****If YES, please complete Appendix C**

- D. **PROCEDURES:** State in chronological order what the research participant is expected to do and what the researcher will be doing during the interaction. Indicate the expected duration/time commitment of each research activity.

On the first day of the study the participants from both the experimental and control groups will complete the social physique anxiety scale (SPAS). Then they will receive an educational handout. The physical activity instructor will then read the handout out loud to the class. The participants will follow along with the instructor as he/she reads from the handout. Once a week for the next eight weeks, the participants will

continue to receive these handouts, which are also read to them by their instructors. The handouts will take about six to seven minutes to read to the class. On the fourth and eighth week, the participants will have the handouts read to them and then will complete the (SPAS). Every week the researcher will provide the physical activity instructors a packet with the handouts and the SPAS to be provided and completed by the participants.

2. MATERIALS/EQUIPMENT: Describe all materials, questionnaires, interviews, surveys, and/or equipment to be used in this project. (Be sure to attach copies of all written materials to be used for this project.)

The participants will complete the 7-item SPAS (see attached). They will also receive eight educational handouts once a week. The control groups will receive handouts for the following topics: time management, organizational skills, improving learning and note taking, improving study habits and test taking, preparing for speeches/presentations, working in groups, and research tips. The experimental groups will receive handouts for the following topics: body image/dissatisfaction, perceptions and body types, media influences on body image, social physique anxiety and exercise behavior, eating disorders and social physique anxiety, enhancing self-esteem, exercise and proper nutrition, and building social support networks.

a) Will any type of audio/video recordings be made during this project?
 ___ Yes** ___X___ No

**IF YES, answer the following questions. Note: This information also needs to be included in the consent form.

- i) Where will the tapes be stored? N/A
- ii) Who will have access to the tapes? N/A
- iii) How will the tapes be transcribed and coded and by whom? N/A
- iv) How and by what year will the tapes be destroyed? N/A

3. PARTICIPANTS:

Estimated total of participants to be involved: ___475___

Estimated number of males to be involved: ___60___

Estimated number of females to be involved: ___415___

Estimated number of participants from historically underrepresented groups (African-American, Hispanic, Native American, etc.) to be involved:

200

Note: If you plan to exclude a group of individuals or a gender from the research, please provide a scientific rationale for doing so: Volunteers under the age of 18 years old will not participate in this study. This study is examining changes in SPA among college age individuals. Past research on college students and SPA has utilized age groups that have been 18 years old and above.

b) Age range (check all that apply):

less than 1 year (Submit a parental consent form.) 18-65 years

1 – 5 years (Submit a parental consent form.) 65+ years

6 – 17 years (Submit a child’s assent form and parental consent form.)

c) Will the “targeted” population exclusively be:

none of the following

people with developmental disabilities minors (under 18 years old)

people with physical disabilities pregnant women

people with psychiatric disabilities prisoners

citizens from other countries in-patients

members of a specific ethnic/cultural group fetuses/fetal tissue

d) Will screening procedures be used? Yes ** No

****If YES, please describe, in detail, the procedures being used. Justification for the use of race, color, sex, sexual orientation, national origin, religion, age, veteran status, political affiliation, or disability as screening/inclusion/exclusion criteria must be provided.**

e) List criteria for inclusion of participants: N/A

f) List criteria for exclusion of participants: N/A

4. RECRUITMENT:

- a) Describe how participants will be identified and recruited. If the recruitment involves the use of an advertisement, invitation letter, or invitation email, please attach a copy for review and approval.

Participants in the aerobics and jogging classes will be asked by their instructor to participate in this study. The participants will be told that they do not have to participate in this study and there is no penalty for not participating.

- b) Who will make initial contact and how will it be made?

The primary researcher will make contact with the physical activity directors and instructors, first. Then, the physical activity instructors will ask for volunteers in their classes to participate in this study.

- c) If individuals are excluded from participation based on information obtained through pre- screening, how will this information be reported back to them?

There will not be a screening to obtain participants.

- d) Will students, staff, or clients/patients of the investigator be recruited to participate in this protocol? Yes** No

**IF YES, please explain the measures that will be implemented to avoid coercion to participate.

The students will be told that they do not have to participate in the study. The instructor will also explain to them that there is no penalty for not participating in the study.

5. **CONSENT:** (Attach a copy of all proposed consent forms and assent forms to this application.)

- a) Describe how informed consent will be obtained.

Participants will be asked to sign the attached consent form stating they are giving consent to participate in the study.

- b) Who will be responsible for obtaining informed consent from the participants?

The instructors will provide the consent forms to the students and will bring the signed forms back to the researcher.

- c) Will participants be signing a consent form? Yes No**

****IF NO, describe why participants are not signing the consent form and how you will document consent:**

d) If participants are minors, have you prepared and attached a copy of both the parental consent and the consent/assent forms for minors (6-17 years) to this application?

_____ Yes _____ No X N/A

e) If participants are institutionalized or have an appointed guardian, have you prepared and attached a copy of both the guardian/institutional and the participant consent/assent forms to this application? _____ Yes _____ No

 X N/A

f) Participants should receive a copy of the informed consent form. Describe how participants will receive a copy of the informed consent document for their records.

There will be two copies of the consent form that will be provided to the participants. The participants will sign one copy and keep the second copy for their records.

6. COMPENSATION:

a) Will any of the following types of incentives be offered to participants for their participation?

(Please check all that apply.)

No incentives will be offered.

<i>Type</i>	Amount?
_____ Money	
_____ Extra/class credit	
_____ Other (specify)	

b) If extra/class credit is being offered as an incentive, an alternative to participating in the research must be offered. Describe the alternatives available for earning the extra/class credit. (This information also needs to be included in the consent form, unless otherwise approved by the IRB.)

c) If incentives are being offered, please describe how you will prevent or minimize coercion to participate.

d) Will compensation be pro-rated if a participant withdraws early from the project?

_____ Yes** _____ No X N/A

****IF YES, describe how compensation will be pro-rated:**

7. RISKS: (NOTE: Risks can be physical, psychological, social, legal, etc. Risks may result from your experimental procedures or from your methods of obtaining, handling, or reporting data.)

- a) What are the potential risks to the participants? Describe all procedures that will cause any degree of discomfort, embarrassment, possible injury, stress, invasion of privacy, harassment, threat to the dignity of participants, or be otherwise potentially harmful to participants.

Minimal risks will be involved in this study.

- b) What is the likelihood and seriousness of these risks?

Extremely minimal risks.

- c) Describe how you will minimize or protect participants throughout the project against potential risks.

Participants were already involved in physical activity in their physical activity classes and the instructors know all necessary procedures to take while conducting activities in class. Confidentiality will be protected for each student because their names will never be used to identify their data. The only people who have access to the data are the main researcher and primary advisor.

8. BENEFITS:

- a) What are the potential benefits to the individual participants and/or society of the proposed research? (If none, state “None.”) Individuals may learn more about social physique anxiety and how exercise and proper nutrition may decrease social physique anxiety.

- b) What are the possible benefits to society of the proposed research? (If none, state “None.”)

There is the potential benefit that exercise and brief educational interventions may reduce social physique anxiety. This is an important benefit to society not only

because SPA may be decreased by educational interventions, but also because brief interventions may show to be a time efficient way to reduce SPA.

c) If applicable, explain how the benefits outweigh the risks.

There are very few risks involved in this study. The benefit of understanding how social physique anxiety (SPA) may impact a person and how exercise/proper nutrition may decrease SPA will benefit participants in this study.

9. REPORTING:

a) Is it possible that you will discover a participant's previously unknown condition (e.g., disease, suicidal thoughts, etc.) as a result of study procedures? _____
Yes** No

**IF YES, explain how and when such a discovery will be handled.

b) Is it possible that you will discover a participant is engaging in illegal activities (e.g., drug use, domestic violence, child abuse/neglect, underage drinking, etc.)? _____
Yes** No

**IF YES, explain how and when such a discovery will be handled.

10. DECEPTION:

NOTE ON DECEPTION: Federal officials, HHS, NIH, and OHRP have made public statements disapproving of any deception in research involving human participants. However, the Code of Federal Regulations, [45CFR46](#), allows some alteration in the elements

of informed consent if: the research involves minimal risk; the rights and welfare of the participants are not compromised; the research cannot otherwise be conducted; and participants are provided with all pertinent information after participation. If full disclosure at the time of consent is impossible or contraindicated for research purposes, it is recommended that the following statement be included on the consent form: "Because the validity of the results of the study could be affected if the purpose of the study is fully divulged to me prior to my participation, I understand that the purpose of the study cannot be explained to me at this time. I understand that I will have an opportunity to receive a complete explanation of the study's purpose following my participation in the study."

- a) Does this project involve giving false or misleading information to participants or withholding information from them such that their "informed" consent is in question? Yes** No

**IF YES, explain why the use of deception or withholding of complete information is required.

- b) If deception is being used, is a copy of the debriefing/disclosure statement(s) enclosed with this application? N/A

11. CONFIDENTIALITY:

- a) Describe provisions made to maintain confidentiality of data, including student or medical records. Student and medical records will not be utilized in this study. Students will not provide any personal information such as their names on any of the questionnaires or at any time during the study.

- b) Will data be associated with personal identifiers? Yes No
Each participant will have a code, which will be placed on the social physique anxiety scale because the participants will complete this scale three times. The code will keep

each individual's scores separate from the rest of the participants. The specific identity of the participant will not be able to be identified by the code used when completing the scale.

c) Who will have access to identifiers and confidential data?
The main researcher and faculty advisor will have access to the data.

d) Where will data be kept and for how long?

Data will be kept in a locked cabinet in the Sport Psychology Laboratory (Hanner 2308). The data will be kept for four years or until the research is published.

e) What will happen to the data when the research has been completed?

After the study is published, or after four years, the data will be destroyed.

f) Will data identifying the participants be made available to anyone other than the investigators (e.g., study sponsor, etc.)? Yes** No **IF YES, please explain:

12. PERSONNEL AND THEIR QUALIFICATIONS:

NOTE:

- As principal investigator, it is your responsibility to ensure that all individuals conducting procedures described in this application are adequately trained prior to involving human participants.

Including yourself, provide the name of each individual who will be immediately involved in data collection or have access to identifying and confidential information.

Name	Role in Project (procedures/tasks he/she will perform)	Level of Experience with procedures/tasks he/she will perform	Nature/amount of training relevant to investigation or research protocol
Amber Levesque (Course instructor)	Hand out and obtain consent forms, collect SPAS, provide and read interventions to students	Teaching assistant, attended research classes, will meet with primary researcher every week to discuss interventions to be read to class	Will meet with primary researcher once a week for about 10 or 15 minutes to discuss the readings for the following week and to discuss any problems or concerns that may occur during the study
Breana Lognhenry (Course instructor)	Hand out and obtain consent forms, collect SPAS, provide and read interventions to students	Teaching assistant, attended research classes, will meet with primary researcher every week to discuss interventions to be read to class	Will meet with primary researcher once a week for about 10 or 15 minutes to discuss the readings for the following week and to discuss any problems or concerns that may occur

			during the study
Jennifer Knight (Course instructor)	Hand out and obtain consent forms, collect SPAS, provide and read interventions to students	Teaching assistant, attended research classes, will meet with primary researcher every week to discuss interventions to be read to class	Will meet with primary researcher once a week for about 10 or 15 minutes to discuss the readings for the following week and to discuss any problems or concerns that may occur during the study
Mary Rebok (Course instructor)	Hand out and obtain consent forms, collect SPAS, provide and read interventions to students	Teaching assistant, attended research classes, will meet with primary researcher every week to discuss interventions to be read to class	Will meet with primary researcher once a week for about 10 or 15 minutes to discuss the readings for the following week and to discuss any problems or concerns that may occur during the study
Kiley Winstion (Course instructor)	Hand out and obtain consent forms, collect SPAS, provide and read interventions to students	Teaching assistant, attended research classes, will meet with primary researcher every week to discuss interventions to be read to class	Will meet with primary researcher once a week for about 10 or 15 minutes to discuss the readings for the following week and to discuss any

			problems or concerns that may occur during the study

Please explain how these skills/abilities of the individuals involved in data collection will be periodically evaluated:

Once a week there will be a group meeting with all the instructors who are helping in this study. We will discuss any problems or concerns that come up during the classes and discuss any future problems that may arise while providing and reading the interventions to the participants. The 7-item SPAS will be collected at three of these meetings from all of the instructors.