

Does Social Physique Anxiety Affect Women's Motivation to Exercise?

Tessa R. Brown

Faculty Sponsor: Elizabeth Seebach, Department of Psychology

ABSTRACT

It can be argued that physique related perceptions both encourage and discourage physical exercise. The role of social physique anxiety as related to exercise motivation was examined in a sample of 94 female undergraduate students. Participants assessed their social physique anxiety, and were then presented with a video of an aerobics class with its members dressed in attire that either emphasized or de-emphasized the physique. Upon conclusion of the video, participants rated their motivation to exercise. Results indicated that low social physique anxiety participants reported higher levels of health-related exercise motivation, while high social physique anxiety participants reported higher levels of appearance-related exercise motivation. Interestingly, participants with high social physique anxiety who viewed the physique-emphasized video had the highest scores in appearance-related exercise motivation. Further research may focus on the factors, such as body composition or exercise behavior, that mediate the relationship between these variables.

What motivates a person to exercise? It can be argued that physique related perceptions both encourage and discourage physical exercise or activity. Dissatisfaction or self-consciousness about one's physique can be a strong motivator of exercise behavior (Leary, 1992). However, it can also be said that dissatisfaction with one's physique may cause a person to shy away from participation in fitness programs where they perceive others to be evaluating their bodies. The proposed study will examine the role of social physique anxiety as related to exercise motivation and attitude toward exercise setting.

Many studies have examined the attention that an individual places on one's own body, but seemingly little consideration has been given to self-perceptions of how others evaluate our bodies. The anxiety associated with perceived social evaluation of one's body or physical appearance has been labeled social physique anxiety. Social physique anxiety (SPA) has been studied within the realm of exercise psychology and has been related to self-presentation (Crawford & Eklund, 1994), exercise motivation (Smith, Handley, & Eldredge, 1998), and eating attitudes (Haase & Prapavessis, 1998; Frederick & Morrison, 1998).

Recently, efforts to examine how people present themselves in social settings have been studied in the area of exercise psychology. Since exercise often occurs in a social context, it seems logical that self-presentational concerns should be considered. Self-presentation is the attempt by an individual to present a desired image to themselves and others by actively selecting and/or omitting aspects of themselves in effort to create a desired impression (Leary, 1992). Because physique is an important part of the self-concept, approval is desired. It has been suggested that many of the reasons commonly given for participating in exercise reflect self-presentational motives (Crawford & Eklund, 1994; Leary, 1992; Smith, Handley,

& Eldredge, 1998). For instance, a significant reason why people exercise is to achieve or maintain a desired physical appearance as opposed to a less presentational concern such as health.

In addition, many people regularly participate in physical activities in order to obtain or maintain a desired social identity (i.e., to be “an athlete”) along with a desired appearance (i.e., to be fit or in shape). By being athletic, many people gain social rewards, recognition, and attention. Leary (1992) found that people who value the social aspects of their identities exercised for primarily social and self-presentational reasons, whereas people who value the personal aspects of their identities exercised for primarily health and enjoyment reasons. Thus, the reasons to exercise in order to improve appearance or to obtain a desired social identity reflect self-presentational motives.

Though self-presentational attitudes can be motivating reasons for some who participate in physical activity, they can also be discouraging factors for those who are concerned with how other people evaluate their bodies. Many people worry about how they appear to others during exercise situations, which in turn may affect the type of activity they engage in, where and with whom they participate, and the enjoyment that they derive from the participation (Crawford & Eklund, 1994; Eklund & Crawford, 1994; Lantz & Hardy, 1997). For instance, people who are very concerned with how others’ perceive their bodies may not present themselves in such situations for fear of displaying a negative social image.

Indeed, Lantz and Hardy (1997) found that individuals with higher levels of SPA may be less likely to engage in physical exercise in situations where their bodies may be evaluated negatively. In addition to avoiding situations where their physique is displayed to others, those who have high SPA become distressed when their physique is on display to others. Those who are highly anxious also avoid activities that emphasize their bodies (including aerobic exercise that might be beneficial to them), and attempt to improve their physiques in ways that may be harmful (i.e., fasting, crash dieting) (Hart, Leary, & Rejeski, 1989).

Many researchers have used the Reasons for Exercise Inventory (REI) to explore the correlates of exercise motivation (Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989). For example, Smith, Handley, and Eldredge (1998) used the REI to assess the relationship among reasons for exercise, frequency of exercise, and body-image satisfaction between male and female college students. They found that women reported exercising for weight and appearance concerns more than men, although men and women reported experiencing similar body dissatisfaction specific to individual physical attributes. In addition, women who reported more situational body distress exercised primarily for weight control and to improve their appearance. This finding was similar to one reported by Cash, Novy, and Grant (1994); although unlike women in the earlier study, dissatisfaction with specific bodily attributes did not motivate these women to participate in exercise for any reason.

Eklund and Crawford (1994) found results that would indicate that a greater emphasis placed on exercise for health-related reasons was associated with lower levels of SPA. The researchers also found that, although frequency and duration of exercise were not associated with SPA, the favorability of attitudes towards exercise settings emphasizing or de-emphasizing the physique among college women was significantly associated with SPA (Crawford & Eklund, 1994).

Knowing the importance of exercise for physical and psychological health, a clearer understanding of how these variables are associated will give health educators, mental health professionals, and sports psychologists a better perspective on methods to use to promote regular exercise as an important health behavior (Smith, Handley, & Eldredge, 1998).

The current study examines the impact of SPA on exercise motivation and attitudes toward exercise setting. It is expected that participants who have high SPA will show higher levels of appearance-related exercise motivation than participants with low SPA. Conversely, it is expected that participants with low SPA will show higher levels of health-related exercise motivation. It is also expected that participants who are made to feel body conscious will show higher levels of motivation to exercise. Finally, it is expected that participants with high SPA who are made to feel body conscious will show the highest exercise motivation.

METHOD

Participants

Participants were 94 female undergraduate students who received one extra credit point in an introductory psychology course as a result of their involvement in the study. Five females were excluded from the final analysis due to self-reported eating disorders.

Participants ranged in age from 18 to 33 years ($M = 19.14$, $SD = 1.86$), and all were Caucasian. On average, the women exercised 3.5 days a week ($SD = 1.73$) for a mean duration of 40.45 minutes per day ($SD = 36.43$).

Over half of the participants (56%) were currently or previously dieting for weight control purposes. The most frequently reported dieting methods were the restriction of calories (43%), the restriction of certain food groups (41%), and the use of diet pills (14%).

As in earlier studies (Crawford & Eklund, 1994; Eklund & Crawford, 1994), the selection of participants was limited to women for several reasons. First, women make up the majority of aerobic classes, which was the exercise setting of interest. Also, popular media images of female exercise attire place a large emphasis on the display of the physique.

Procedure

Female participants were recruited from undergraduate psychology courses for involvement in a study on "women and exercise." First, participants completed the Social Physique Anxiety Scale (SPAS) in a classroom-like setting. The first group of participants was presented with a video portraying an aerobics class with its members dressed in attire that emphasized the physique (i.e., leotards). The second group of participants was presented with a video of an aerobics class dressed in attire that de-emphasized the physique (i.e., sweat clothes). Upon conclusion of the video, all participants completed the Reasons for Exercise Inventory (REI) and the Attitudes Toward Exercise Setting Questionnaire (ATES).

Instruments

Social Physique Anxiety Scale (SPAS)

The SPAS is a 12-item self-report inventory designed to measure the construct of SPA (Hart, Leary, & Rejeski, 1989). It is a 5-point Likert type scale with items such as "I am comfortable with the appearance of my physique/figure." Hart, Leary, and Rejeski (1989) found adequate construct validity, test-retest reliability ($\alpha = .82$), and internal consistency ($\alpha = .90$).

Reasons for Exercise Inventory (REI)

The REI is a 24-item self-report inventory with seven subscales measuring reasons and motives for exercise (Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989). It was recently modified to include four scales: Health/Fitness Management, Appearance/Weight Management, Mood/Stress Management, and Socializing (Cash, Novy, & Grant, 1994). The REI consists of a 7-point Likert type scale in which participants assess the importance of exercise motives such as, "To be slim" or "To be attractive to members of the opposite sex." The internal consistency of the REI was found to be adequate ($\alpha = .82$).

Attitudes Toward Exercise Settings Questionnaire (ATES)

The ATES measures attitudes toward exercise settings (Crawford & Eklund, 1994). A 5-item modification of the measure was used in the current investigation. The ATES requires participants to respond to statements such as “I would enjoy exercising with this group of people” and “I would like participating with this class regularly.”

Stimulus Materials

Two videotapes of aerobic classes were professionally developed for the current investigation in order to serve as stimulus materials. The videos were formulated based on previous research conducted by Crawford and Eklund (1994). Except for the manipulation of exercise attire, all aspects of the videos were identical, including participants, aerobic routine, floor positions, and camera angles. A total of 5 female participants and 1 female instructor were visible in the 3-minute videos. An independent focus group judged the participants to be college-age, reasonably fit, well proportioned, and athletic.

The manipulation of the aerobic videos involved changing the attire of the participants in the class. In the physique emphasized video, participants wore clothing that was relatively revealing with regard to the physique. In contrast, the physique de-emphasized video featured attire that downplayed the focus on the physique.

RESULTS

Statistical Analysis

For statistical analyses, participants were grouped into either high or low SPA based on their SPAS scores. High scores were categorized as median or above ($Mdn = 39$), and low scores were categorized as below the median. Consequently, this allowed exploration of the effect of two independent variables, SPA (high vs. low SPA) and setting (physique emphasized vs. physique de-emphasized) on two dependent variables (exercise motivation and attitude toward exercise setting). Results were analyzed in a series of 2x2 factorial ANOVA tests to determine main effects and interactions.

ANOVA Analysis

An alpha level of .05 was used for all statistical tests. Analysis of variance with the Health REI subscale as the dependent variable indicated a main effect of SPA ($F(1,88) = 6.54, p = .01$). This revealed that participants with low SPA ($M = 29.67, SD = 6.06$) were more highly motivated to exercise for health-related reasons.

Analysis of variance with the Appearance REI subscale as the dependent variable also yielded a main effect of SPA ($F(1,88) = 17.85, p = .00$). This indicated that participants with high SPA ($M = 44.47, SD = 4.33$) were more highly motivated to exercise for appearance-related reasons.

An interaction effect of SPA and exercise setting was significant as well ($F(1,88) = 4.10, p = .04$). Specifically, participants with high SPA who viewed the physique emphasized video had the highest scores in appearance-related exercise motivation. Conversely, those with low SPA who viewed the physique de-emphasized video had the lowest scores in appearance-related exercise motivation. No other main effects or interactions were significant.

Table 1. Descriptive Statistics of Variables

Variable	# of Items	M	SD	Alpha
REI	24	127.54	13.55	.82
Health	8	46.15	6.25	.88
Appearance	8	41.97	7.89	.87
Mood	4	20.35	4.34	.78
Socializing	2	8.42	2.94	.84

DISCUSSION

The purpose of this investigation was to examine the role of SPA as related to exercise motivation and attitude toward exercise setting. Several consistencies and contrasts with previous studies emerged, which raises questions that may require further research.

The first hypothesis was supported in that high SPA participants showed higher levels of appearance-related exercise motivation than low SPA participants. This emphasis placed on the importance of the appearance of the physique by women who have high SPA has been demonstrated in previous investigations. For instance, Lantz and Hardy (1997) found that individuals with higher levels of SPA were less likely to engage in physical exercise in situations where their physiques could be evaluated negatively.

It appears that if SPA influences exercise motivation, it must be through an interaction of situational factors related to the display of the physique. Because regular exercise can enhance one's appearance by reducing weight and body fat and increasing muscle tone, many people who are encouraged by self-presentational motives engage in exercise that will improve their appearance and make them appear "healthier." This interaction may be manifested through the selection of exercise settings, based upon such factors as normative exercise attire and social identity (Leary, 1992).

The second hypothesis was supported in that low SPA participants were more highly motivated to exercise for health-related reasons. This finding is consistent with previous research by Eklund and Crawford (1994), who found that a greater emphasis placed on exercise for health-related motives was associated with lower levels of SPA.

The third hypothesis was not supported. Interestingly, no significant associations were found between SPA and exercise setting featuring attire that emphasized or de-emphasized the physique. In addition, there were no significant differences in the favorability ratings of both videos, as measured by the ATEs. This is contrary to research conducted by Crawford and Eklund (1994), who found significant associations between SPA and exercise setting, in which the strongest correlation between SPA and exercise setting was found relative to the physique-emphasized video. Perhaps the video that was formulated for the current investigation should have made a clearer distinction for the salience of the physique. However, the choice and perception of exercise attire is highly individualized. Whereas one woman may perceive the attire to be particularly revealing, another may not.

The final hypothesis was supported, and reflected the interaction of SPA and exercise setting. High SPA participants who viewed the physique-emphasized video reported the highest appearance-related exercise motivation. It seems that self-presentational theory may be a significant factor that influences exercise motivation. Crawford and Eklund (1994) found that

reasons that can be construed as self-presentational, such as physical attractiveness and weight control, seem to be important and positively associated with SPA. These motives may have increased importance in an exercise setting where there is an emphasis on the salience of the physique.

The current investigation lends to the variety of research on exercise motivation and SPA. Considering the limitations of the study, which include a homogenous sample and the lack of significant results produced by the aerobic videos, there are several implications for further research. For example, future studies should focus on the degree to which SPA inhibits people from participating in beneficial physical and recreational activities. Further research should focus on why certain individuals become anxious about their physiques whereas others, who may be equally unfit, do not. In addition, the factors that mediate the relationship between SPA and exercise motivation, such as body composition and exercise behavior, should be examined.

REFERENCES

- Cash, T. F., Novy, P. L., & Grant, J. R. (1994). Why do women exercise? Factor analysis and further validation of the reasons for exercise inventory. *Perceptual and Motor Skills, 78*, 539-544.
- Crawford, S., & Eklund, R. C. (1994). Social physique anxiety, reasons for exercise, and attitudes toward exercise settings. *Journal of Sport & Exercise Psychology, 16*, 70-82.
- Eklund, R. C., & Crawford, S. (1994). Active women, social physique anxiety, and exercise. *Journal of Sport and Exercise Psychology, 16*, 431-448.
- Frederick, C. M., & Morrison, C. S. (1998). A mediational model of social physique anxiety and eating disordered behaviors. *Perceptual and Motor Skills, 86*, 139-145.
- Haase, A. M., & Prapavessis, H. (1998). Social physique anxiety and eating attitudes: moderating effects of body mass and gender. *Psychology, Health & Medicine, 3*, 201-210.
- Hart, E. H., Leary, M. R., & Rejeski, W. J. (1989). The measurement of social physique anxiety. *Journal of Sport and Exercise Psychology, 11*, 94-104.
- Lantz, C. D., & Hardy, C. J. (1997). Social physique anxiety and perceived exercise behavior. *Journal of Sport Behavior, 20*, 83-93.
- Leary, M. J. (1992). Self-presentation processes in exercise and sport. *Journal of Sport and Exercise Psychology, 14*, 339-351.
- Silberstein, L. R., Mishkind, M. E., Striegel-Moore, R. H., Timko, C., & Rodin, J. (1989). Men and their bodies: A comparison of homosexual and heterosexual men. *Psychosomatic Medicine, 51*, 337-346.
- Smith, B. L., Handley, P., & Eldredge, D. A. (1998). Sex differences in exercise motivation and body image satisfaction among college students. *Perceptual and Motor Skills, 86*, 723-732.