# Body Image, Self-Esteem, and Health-Related Behaviors Among Male and Female First Year College Students 

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This study examined the relationships among selfesteem, body image, and health-related behaviors of 267 female and 156 male first-year college students. Data were collected in 23 classrooms. Instruments included a demographic sheet, the Objectified Body Consciousness Scale, the Weight and Appearance Visual Analogue Scales, the Contour Drawing Rating Scale, the Rosenberg Self Esteem Scale, and a measure of physical fitness/health-related behaviors. Self-esteem was consistently related to body image dissatisfaction for women, and women consistently exhibited a more negative body image than did men. Even when both men and women were consistent exercisers, the women had poorer body image. Finally, for both men and women, more positive physical fitness/health-related behaviors were positively related to self-esteem and body image.

For women, being beautiful is important for social success. This may be especially true on college campuses where people are rapidly assessed for physical attractiveness (Pipher, 1994). Although the idealized standard for feminine beauty demands that women be thin (Cash \& Green, 1986; Garner, Garfinkel, Schwartz, \& Thompson, 1980), men typically have been exempt from this standard (Adame \& Frank, 1990). However, cultural pressure
for men to conform to a thin and muscular ideal has intensified since the 1970s (Lien, Pope, \& Gray, 2001), and men are increasingly dissatisfied with their bodies (Cash, Winstead, \& Janda, 1986) and want to lose weight or increase muscle tone (McCabe \& Ricciardelli, 2004).

In 1950, Schilder described body image as "the picture of our own body which we form in our mind . . . [it is] the way in which the body appears to ourselves" (p. 11). More recently, the term body image has been used to reflect one's ability to regard parts of one's body as belonging to the self or to define the boundaries of one's own body (Thompson, 1990) and one's subjective, mental representation of his or her physical appearance. Body image is constructed from self-observation, the reactions of others, and a complicated interaction of attitudes, emotions, memories, fantasies, and experience, both conscious and unconscious. Grogan (1999) described body image as "a person's perceptions, thoughts and feelings about his or her body" and as "subjective and open to change through social influence" (pp. 1-2).

While there are various conceptualizations of body image, few would deny its importance and its link to well being. Research data

[^0]indicate that body image dissatisfaction, often called body image disturbance (Thompson, 1990), has become more prevalent since the 1980s and has been associated with incidences of depression (Denniston, Roth, \& Gilroy, 1992), heightened anxiety, and lowered selfesteem (Thompson \& Altabe, 1991), as well as the development of maladaptive eating behaviors and dieting (Cooley \& Toray, 2001).

Dissatisfaction with one's body has become "a normative discontent" (Thompson, 1990) in today's culture and is closely related to a drive for thinness (Cooley \& Toray, 2001). The inability to shed unwanted pounds can have a drastic effect on overall mood and selfconfidence. Body image dissatisfaction, weight concerns, eating problems, and physical attractiveness have become especially significant issues on college campuses (Harris, 1995; Mintz \& Betz, 1988), with up to $90 \%$ of college students reporting that they worry about body image (Delene \& Brogowicz, 1990).

Historically, there have been sex differences in body image. In two large national surveys, women have reported greater body dissatisfaction than have men (Cash \& Henry, 1995; Garner, 1997). Across all ages, women have reported being more concerned with body weight and appearance (Pliner, Chaiken \& Flett, 1990). Moreover, women report experiencing more negative feelings when they are attentive to their bodies than do men (Franzoi, Kessenich, \& Sugrue, 1989), they have a greater discrepancy between their ideal and actual body figures (Rozin \& Fallon, 1998), and they tend to perceive themselves as larger or heavier than they actually are (Cash \& Green, 1986). Adame and Frank (1990) found that among normal weight women (women who are neither medically underweight nor overweight), $61 \%$ perceived themselves to be overweight. In contrast, men,
regardless of their actual weight, usually report more positive body images than do women (Demarest \& Langer, 1996). Women tend to "feel" overweight much more than do men (Tiggemann, 1992), and men appear to be less obsessed with weight and becoming fat; therefore, pathogenic values related to eating and body size is lower among men (Akande, 1993). It is evident that potential sex differences need to be considered when doing research on body image.

Another variable that needs to be considered is self-esteem, defined as liking and respecting oneself (Crandall, 1973). According to Rosenberg, Schooler, Schoenberg, and Rosenberg (1995), domain-specific selfesteem, or elements of self-esteem related to different self-perceptions, explains behavior. Franzoi and Shields (1984) suggested that physical self-worth is a component of selfesteem that relates to constructs such as perceived sport competence, physical condition, attractiveness, and weight concern. As an aspect of physical self-worth, body image dissatisfaction is related to global self-esteem. Indeed, the association between body image dissatisfaction and self-esteem has been well established (Harris, 1995; Stowers \& Durm, 1996).

Given that women are biologically predisposed to have a higher percentage of body fat and that the standard of thinness is more extreme for women than for men (Rodin, Silberstein, \& Striegel-Moore, 1984), it is reasonable to expect a stronger relationship between body image dissatisfaction and selfesteem for women. In fact, Kostanski and Gullone (1998) found that being female and having low self-esteem was most predictive of body image dissatisfaction for participants with healthy body weight. For college women, the pressure to achieve high standards of thinness and attractiveness in a competitive
college environment is related to lower selfesteem (Harris, 1995; Mintz \& Betz, 1988). These findings suggest that researchers need to examine the interactions of sex, body image, and self-esteem. It is also important to explore behaviors that may be linked to body image and self-esteem, such as exercise and other health behaviors.

In 2001, Parsons and Betz called for research on the interaction of physical exercise and body image. The literature on body image and exercise reveals some unexpected associations. For example, although women who exercise are generally leaner, they exhibit similar or even greater degrees of body dissatisfaction than women who do not exercise (Davis \& Cowles, 1991). In addition, the degree to which women regularly exercise appears to influence their preoccupation with losing weight and dissatisfaction with their physiques (Kennedy \& Reis, 1995).

McDonald and Thompson (1992) examined reasons for exercising and found that women exercised for more weight-related reasons than did men. In both males and females, exercising for weight, tone, and physical attractiveness was positively associated with body image dissatisfaction, while exercising for health, enjoyment, and fitness was negatively related to body image dissatisfaction. Studying men and women who identified themselves as regular exercisers, Davis and Cowles (1991) found that men and women were equally dissatisfied with their weights; however, women wanted to lose weight while men were divided between those with a desire to lose weight and those who wanted to gain weight. Women were more dissatisfied with their bodies and were more likely to exercise to try to lose weight as compared to men. Thus, the motives for exercising may moderate how body image is affected by exercise participation.

## Purpose of this Study

This study examined the relationships among self-esteem, body image, exercise, and other health-related behaviors in first-year male and female college students. This study contributes to the literature by (a) examining whether sex differences in body image are still pronounced given more recent evidence that men may be experiencing increasing body dissatisfaction, (b) examining college students' health-related behaviors in relationship to body image and self-esteem, and (c) examining whether regular exercise is associated with more positive body image and higher self-esteem for men and women. Four hypotheses were posed:

H1. Male students will have a more positive body image than will female students.

H2. Self-esteem will be negatively related to body image dissatisfaction for both women and men.
H3. Men who regularly exercise will have higher self-esteem and a more positive body image than will women who regularly exercise; however, there will be no differences between women who regularly exercise and those who do not.

H4. Students with more positive healthrelated behaviors and attitudes will have higher self-esteem and a more positive body image.

## METHOD

## Participants

Participants were 433 first year college students enrolled in a three-credit semester-long course designed to help ease their transition to a large, southwestern, Research I university. Among the 267 female and 156 male participants, 327 were Euro-American, 40 Latino, 18 African American, 16 Asian American, 8 International Students, 4 Native American, and 4 classified
as "Other." This sample represents approximately 10 percent of the incoming freshman class and also reflects the racial/ethnic diversity at this university. Age ranged from 17 to 32 with a mean age of 18.42 years $(S D=1.32)$.

## Procedures

Course instructors were contacted to request their permission to administer the survey during their class time. Approximately midsemester, graduate students or counseling psychology faculty distributed survey packets in 23 classes. Students were informed that their participation was voluntary and that their grades would not be affected if they elected not to participate. Of the students who were present on the day the survey was administered, approximately 90 percent completed the survey packet. The survey took approximately 30 to 40 minutes to complete. The few students who were unable to complete the surveys during the allotted class time were allowed to return it to their instructors during the following class period.

## Instrumentation

In addition to the demographic sheet, the measures used to assess the study constructs were: the Objectified Body Consciousness Scale (McKinley \& Hyde, 1996); the Weight and Appearance Visual Analogue Scales (Heinberg \& Thompson, 1995); the Contour Drawing Rating Scale (Thompson \& Gray, 1995); the Rosenberg Self Esteem Scale (Rosenberg, 1965); and measures of healthrelated behaviors.

The Objectified Body Consciousness Scale $(O B C)$. The OBC is a measure of aspects of body image related to viewing one's own body as an object "to be looked at" (McKinley \& Hyde, 1996). Using factor analysis, the authors formed three 8 -item scales: body surveillance, body control, and body shame. Each item is
rated on a seven-point Likert-type scale ranging from strongly disagree to strongly agree. Body surveillance refers to constant selfsurveillance, seeing one's body as others see it. For women, it is linked theoretically to the sociocultural construction of the female body as an object of male desire. An example of an item from the body surveillance scale is: "I often worry about how I look to other people." Body control refers to the assumption that people are responsible for how their bodies look and that they can control their weight and appearance with enough effort. A sample item for body control subscale is: "I can weigh what I'm supposed to when I try hard enough." The third scale, body shame, reflects the degree to which the person has internalized cultural standards of body image that are virtually impossible for many and the shame that is experienced when these standards are not met. A sample item from the body shame scale is: "When I'm not the size I think I should be I feel ashamed." Higher total scores on each factor reflect a greater prevalence of body surveillance, body control, or body shame.

McKinley and Hyde (1996) reported Cronbach's alpha internal consistencies ranging from .76 to .89 for body surveillance, .68 to .76 for body control, and .70 to .84 for body shame and 2 -week test-retest reliabilities of .79 for body surveillance, .73 for body control, and .79 for body shame. Significant negative correlations were found between the Body Esteem Scales (Franzoi \& Shields, 1984) and both body surveillance ( $r=-.39$ ) and body shame $(r=-.51)$. When correlated with the Self-Consciousness Scales, body surveillance correlated strongly with public self-consciousness ( $r=.73$ ). For this study, the Cronbach's alphas were .77 for body surveillance, .82 for body shame, and .66 for body control.

Weight and Appearance Visual Analogue Scales. These scales consist of two visual analogues, each 100 millimeters long and anchored by no dissatisfaction and extreme dissatisfaction (Heinberg \& Thompson, 1995). The two analogues measure weight/size dissatisfaction and overall appearance dissatisfaction. Participants put an $X$ on each line that corresponds to their level of dissatisfaction. Scores are measured with a metric ruler, and higher scores represent greater dissatisfaction. Heinberg and Thompson examined the construct validity of the Weight and Appearance Visual Analogue Scales by correlating them with the Eating Disorders Inventory-Body Dissatisfaction subscale (EDI-BD; Garner, 1997). Both the Visual Analogue Scales correlated significantly with the EDI-BD. Because the two Visual Analogue Scales shared $65 \%$ of common variance, Heinberg and Thompson suggested combining the two scales into a single measure of body dissatisfaction. In this study, the two Visual Analogue Scales, which correlated at . 76 ( $p=.001$ ), were averaged to comprise a measure of physical dissatisfaction that could range from zero to 100 .

Contour Drawing Rating Scale. This scale (Thompson \& Gray, 1995) consists of nine male and nine female contour drawings of graduated sizes. Men responded to the male figures, and women responded to the female figures. Participants checked the figure that reflected their current figure and circled the figure that reflected their ideal figure. The discrepancy between the current and ideal selections represents a measure of self-ideal discrepancy in body image. Thompson and Gray reported a one-week test-retest reliability of .78 with college-aged women. Validity was established by having college students order the drawings from thinnest to heaviest and indicate the drawings they believed to be
anorexic or obese. Ninety-five percent of the students gave the correct ordering.

Rosenberg Self-Esteem Scale. This 10-item scale was utilized to measure overall self-esteem (Rosenberg, 1965). Items are rated from strongly disagree (1) to strongly agree (4). A sample item is: "I take a positive attitude toward myself." Five items that are negatively worded were recoded so that higher scores reflected more positive self-esteem. Total scores can range from 10 to 40 . Rosenberg (1979) reported test-retest reliabilities ranging from .80 to .85 . Convergent validity has been established with high correlation with the Coopersmith Self Esteem Inventory and with peer ratings of self-esteem (Demo, 1985). For this study's sample, the Cronbach's alpha was 79 .

Health-Related Behaviors. The 15 items used to assess health-related behaviors were adopted from a wellness survey that was used by the university Student Health Center. These items asked about stress, tension and anxiety, eating behaviors, use of drugs/alcohol, and exercise behaviors. Having a four-point response format, a typical item was "I know of several ways to relax my body without using drugs or alcohol" (responses range from completely disagree to completely agree). Items were scored so that more healthy responses were awarded higher numbers. Responses across the 15 items were summed so that total possible scores could range from 15 to 60 . The Cronbach's alpha for item responses for this study sample was .80 .

## RESULTS

Prior to analyzing the hypotheses, the correlations among the five body image variables (body surveillance, body shame, body control, physical dissatisfaction, and self-ideal discrepancy) were examined. Of the 10 correlations,

8 were significant at a probability level of .01 . Therefore, multivariate procedures were utilized to examine the hypotheses predicting group differences.

The first hypothesis predicted that male college students would have a more positive body image than would female college students. To test for differences between men and women on body image, a multivariate analysis of variance (MANOVA) was conducted with the five body image scales. The Hotelling's Trace was significant, $F(5,244)=8.16$, $p<.001$. Follow-up analyses of variance (ANOVAs) revealed that there were sex differences in four out of the five measures of body image, including body surveillance, body shame, self-ideal discrepancy, and physical dissatisfaction (see Table 1 for descriptive statistics). Compared to men, women reported more body surveillance, greater body shame, greater discrepancy between their ideal and real body figures, and more dissatisfaction with their weight and physical appearance.

The second hypothesis predicted that selfesteem would be negatively related to body image dissatisfaction for both women and men. The family-wise error rate was set at .05 for each set of correlations to help control for Type I error. For men, lower self-esteem was
significantly related to higher body shame ( $r=-.21, p<.01$ ). For women, lower selfesteem was related to more body image dissatisfaction on four out of five measures: body surveillance ( $r=-.30, p<.001$ ), body shame ( $r=-.40, p<.001$ ), self-ideal discrepancy ( $r=-.24, p<.001$ ), and physical dissatisfaction ( $r=-.36, p<.001$ ).

The third hypothesis predicted that men who regularly exercised would have higher selfesteem and a more positive body image than would women who regularly exercised, but that there would be no differences between women who exercised and women who did not. First, participants were categorized by consistency of exercising. Those who reported that they exercised not at all or very little were grouped together to form the non-exercise group (men, $n=56$; women, $n=111$ ). Those who reported that they consistently or very consistently exercised were grouped together to form the regularly exercise group (men, $n=53$; women, $n=84$ ). The MANOVA comparing men and women who regularly exercised on body image and self-esteem revealed significant differences, $F(6,84)$ $=5.85, p<.001$. Follow-up ANOVAs indicated that men and women in the regularly exercise group were different in body surveil-

TABLE 1.
Means and Standard Deviations for Body Image Across Men and Women

|  | Men |  |  | Women |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Body Image | $\boldsymbol{M}$ | $\boldsymbol{S D}$ |  | $\boldsymbol{M}$ | $\boldsymbol{S D}$ |
| Body Surveillance | 33.83 | 8.23 |  | 37.80 | 8.61 |
| Body Control | 36.94 | 7.92 |  | 36.35 | 6.55 |
| Body Shame | 22.78 | 8.57 |  | 27.07 | 9.89 |
| Physical Dissatisfaction | 67.34 | 46.72 |  | 89.60 | 47.81 |
| Self-Ideal Discrepancy | -0.11 | 1.32 |  | 1.02 | 1.31 |

TABLE 2.
Descriptive Statistics for Body Image Across Sex and Exercise Condition

| Body Image |  | Men |  | Women |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  |  | Non-exercise | Exercise | Non-exercise | Exercise |
| Surveillance | $M$ | 34.06 | 32.35 | 38.97 | 36.42 |
|  | SD | 7.80 | 9.80 | 8.18 | 9.09 |
| Control | $M$ | 37.17 | 36.43 | 35.74 | 36.78 |
| Shame | SD | 7.64 | 8.89 | 6.45 | 6.96 |
|  | $M$ | 22.20 | 23.59 | 26.78 | 26.09 |
| SID | SD | 10.06 | 7.48 | 9.64 | 10.04 |
|  | $M$ | 0.06 | -0.35 | 1.00 | 1.14 |
| Physical | SD | 1.59 | 1.13 | 1.59 | 1.29 |
| Dissatisfaction | $M$ | 69.00 | 64.94 | 94.27 | 78.21 |
|  | $S D$ | 47.78 | 46.43 | 45.87 | 46.69 |

lance, $F(1,89)=4.02, p<.05$, and in the selfideal discrepancy, $F(1,89)=31.39, p<.001$. For both of these body image measures, women reported more negative body image. When women who regularly exercised and women who did not exercise were compared, no differences between these two groups of women were found for the five body image measures and self-esteem, $F(6,116)=1.53$, $p=.17$. Although not hypothesized, there were no differences between men who exercised consistently and those who did not on body image ( $p<.41$ ). Descriptive statistics are presented in Table 2.

The final hypothesis predicted that students with more positive health-related behaviors would have higher self-esteem and a more positive body image. Since sex differences were found between men and women in body image, men and women were analyzed separately in correlational analyses (see Table 3). When the inter-relationships among
body image, self-esteem, and health-related behaviors for men were examined, healthrelated behaviors were positively correlated with self-esteem $(r=.26, p<.01)$ and with body control ( $r=.17, p<.05$ ) and were negatively related to body surveillance ( $r=-.42$, $p<.001$ ), body shame ( $r=-.46, p<.001$ ), and physical dissatisfaction ( $r=-.34, p<$ .001). For women, health-related behaviors were positively correlated with self-esteem ( $r=.46, p<.001$ ) and to body control ( $r=.17, p<.01$ ) and negatively related to body surveillance ( $r=-.48, p<.001$ ), body shame ( $r=-.64, p<.001$ ), self-ideal discrepancy ( $r=-.34, p<.001$ ), and to physical dissatisfaction ( $r=-.54, p<.001$ ).

## DISCUSSION

As Thompson (1990) noted, body image dissatisfaction is a normative discontent within Western society, particularly among college
women. And, as recently as 2001, researchers called for investigations of the interaction of physical exercise and body image. In response to these concerns, this study explored the relationships among body image, self-esteem, and the health-related behaviors of first year college students.

As predicted and consistent with several studies (Cash \& Henry, 1995; Demarest \& Allen, 2000; Garner, 1997; Wade \& Cooper, 1998), men exhibited more positive body images than did women. Sex differences in acceptable body size may be influenced by societal definitions of appropriate and attractive shapes for men and for women (Wright \& Whitehead, 1987). There has been criticism of Western society for its emphasis on a slender female physique and negative stereotyping of obese figures (Lake, Staiger, \& Glowinski, 2000). Tiggemann and Rothblum (1998) have suggested that the prominence given to weight and physique has resulted in mass dissatisfaction with body shape in the female population. Constant exposure to unrealistic "ideal" images through television, music videos, movies, and magazines seems to add to
women's struggle to be perfect and their dissatisfaction with current bodies. As society moves toward the inclusion and objectification of men in the realm of media, there may also be a movement toward more dissatisfaction and body image disturbance in men (Cash, Winstead, \& Janda, 1986). Indeed, the negative relationship between self-esteem and body shame for men in this study and reported by Thompson and Altabe (1991) provides support for this change.

The body image measures significantly correlated with self-esteem for women. For women, lower self-esteem scores were mirrored by reports of watching their bodies as an onlooker (body surveillance), having greater discrepancy between their current and ideal body figures, having greater overall physical dissatisfaction, and feeling bad because of their bodies (body shame). These results support Stowers and Durm's (1996) findings that physical self-worth is significantly related to overall self-esteem. Interestingly, the body control variable was not related to self-esteem. These young women viewed body control as positive and believed that if they controlled

TABLE 3.
Correlations Among Health-Related Behaviors, Self-Esteem, and Body Image for Men and Women

|  | Health-Related Behaviors |  |
| :--- | :--- | :---: |
|  | Men | Women |
| Self Esteem | $0.26^{* *}$ | $0.46^{* * *}$ |
| Body Surveillance | $-0.42^{* * *}$ | $-0.48^{* * *}$ |
| Body Control | $0.17^{*}$ | $0.17^{* *}$ |
| Body Shame | $-0.46^{* * *}$ | $-0.64^{* * *}$ |
| Self-Ideal Discrepancy | -0.31 | $-0.34^{* * *}$ |
| Physical Dissatisfaction | $-0.34^{* * *}$ | $-0.54^{* * *}$ |

[^1]their weight and appearance, this was a good thing. They did not, however, link body control with their feelings of self-worth.

In contrast, only one aspect of the body image was significantly correlated with selfesteem for men. Feeling body shame, reflected in questions such as, "I would be ashamed for people to know what I really weigh," was significantly related to self-esteem. The more their body shame, the lower their self-esteem. Four components of body image were not related to self-esteem. It appears that for the men in this study, self-esteem is not as intertwined with their body image as it is for women. These men were generally satisfied with their physical appearance, having very little discrepancy between their real and ideal bodies. This finding is similar to that of Demarest and Allen's (2000) who reported that men are generally satisfied with their own shapes. Unlike the women, the men in this study were not particularly concerned about how others viewed their bodies. One aspect of body image became important only when fitness behaviors were examined.

When only the men and women who reported that they exercised regularly were compared, women still exhibited a more negative body image, particularly body surveillance and self-ideal discrepancy. In addition, women who regularly exercised did not have a more positive body image than women who did not regularly exercise. It is possible that women who exercise regularly may be working out primarily to feel more physically attractive and to increase their perceptions of others viewing their bodies more positively, however, exercising does not appear to make them feel any better about their bodies. While men probably work out for similar reasons stemming from the desire to be physically attractive, they are not faced with the extensive physical ideals of thinness
that women must endure. For women, working out may be one piece of a long list of restrictions that may include dieting, avoiding certain foods, and avoiding certain types of clothing. With all the restrictions, being physically active may seem like just one more punishment for not being thin enough. This conclusion is supported by McDonald and Thompson (1992) who reported that women exercised for more weight-related reasons than did men. Similarly, Parsons and Betz (2001) examined the relationship of participation in sports and physical activity with body objectification (as measured by the OBC ) for women and found that the variable most consistently related to sports and physical activity was body shame, the degree of potential shame if one does not fulfill cultural expectations for the female body.

In contrast, it may be that men who exercise are trying to gain weight and be more muscular. With the emphasis on becoming larger, working out may be less of a punishment and more of confidence building experience. Unlike the women who are trying to make themselves smaller and less noticeable (in order to be noticed), men are working to become larger, more prominent, and to remain healthy. Conversely, women, instead of congratulating themselves for working to stay physically healthy, often think that they should still be thinner and that if they exercised just a few hours more per week they could attain the physical ideal they so desire and be noticed more positively by others.

All women, whether or not they regularly exercise, still struggled with body image concerns. In addition, regular exercise did not correlate with higher self-esteem in this sample of women. However, self-esteem was positively related to health-related behaviors in general. The more positive their health-related behaviors, the higher their self-esteem and their
body control. This relationship was also found for men. When these students were taking care of themselves, both physically and psychologically, they felt better about themselves as people and believed they were exerting appropriate control over their bodies.

It was surprising that for both men and women, stronger beliefs in personal control over one's appearance were related to higher self-esteem and positive health behaviors. The body control scale was designed to reflect an internalized cultural ideal by measuring the extent to which a person believes that she or he can look thin and attractive with enough effort. In this study, however, participants' responses to statements such as "A large part of being in shape is having that kind of body in the first place," and "I can weigh what I'm supposed to when I try hard enough" indicated a positive view of control, as it was associated with a higher self-esteem and more positive physical behaviors for both men and women. Perhaps the extreme focus on the positive aspects of being in control in this society influenced their responses. They may have overlooked the physical and social implications of the phrase "supposed to" and thought that it would be best to fit themselves into a mold. Students may also have viewed some of the statements suggesting that they may not have power to change their bodies, due to reasons such as heredity, as negative due to the lack of control implied. Further understanding of how control beliefs influence body image is vital to understanding factors that influence body image dissatisfaction and more severe problems such as eating disturbance.

In contrast, better health-related behaviors were negatively related to body surveillance, body shame, and physical dissatisfaction for both men and women. In addition, healthrelated behaviors were also negatively related to self-ideal discrepancy for women. It should
be noted that there was very little variance in the self-ideal discrepancy scores for men, indicating that they saw little difference between their real and ideal bodies.

Despite changes in the way men are presented in the media, this research indicates that there continue to be significant differences in how men and women perceive their bodies. Men consistently exhibit more positive body image, even when exercise is taken into account, than do women. Despite exercise patterns, body image dissatisfaction is rampant among young women. Even women who exercise report body image dissatisfaction similar to those who do not exercise. Finally, a hopeful aspect of the study is that students with more positive health-related behaviors had higher self-esteem.

There were some limitations to this study that need to be noted. The most prominent is the limited ethnic diversity. The sample consisted of predominately Euro-American women and men with an average age of 18 who presumably just graduated from high school. Thus, these findings are only generalizable to a similar sample of first year college students. Future studies that include more ethnic/racial minority men and women and upper level students are needed. Also, the study was conducted at a large southwestern university where the temperate climate may have influenced students' responses about body image. The year-round warm temperature impacts amount and choice of clothing, which may have served as an added pressure for women to be thin. Finally, this was a crosssectional survey design, and causality between health-related behaviors, body image, and selfesteem cannot be determined.

Body image dissatisfaction is undoubtedly a central issue for young women and may be becoming one for young men. College personnel working with this population need to
consider that, despite the fact that body image dissatisfaction will not likely be the reason a student seeks out counseling, it may be impacting their presenting problem and overall self-concept or self-esteem (Befort et al., 2001). Future work is needed in the creation of helpful student interventions for body image disturbance. Programs that focus on positive health behaviors may help influence higher self-esteem and subsequently a more positive body image. Such programs may include positive media messages about healthy
body acceptance, education to increase students' awareness of the negative and often subtle influence of the thin ideal (e.g., a campus based program such as Body Pride Week), and peer support programs that encourage students to focus foremost on making healthy choices.

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[^1]:    ${ }^{*} p<0.05 . \quad * * p<0.01 . \quad{ }^{* * *} p<0.001$.

