*Leisure Sciences*, 28: 311–330, 2006

ISSN: 0149-0400 print / 1521-0588 online
DOI: 10.1080/01490400600745845

Routledge
Taylor & Francis Group

# Body Image and Beliefs About Appearance: Constraints on the Leisure of College-Age and Middle-Age Women

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*The purpose of this study was to examine the relationships among body image, beliefs about appearance, and leisure constraints for college-age women and their mothers. The Body-Image Assessment Scale, the Beliefs About Appearance Scale, and a hierarchical leisure constraints scale were used to assess body image concerns, and leisure constraints. A convenience sample of 116 female students at a private American university and 76 of their mothers was utilized. Multiple regression and t-tests were used to analyze the data. Findings suggested that body image and beliefs about appearance pose leisure constraints for college-age and middle-age women. Findings also suggested that mothers' body image and beliefs about appearance were related to daughters' beliefs about appearance.*

**Keywords** appearance, body image, leisure constraints, women

Women have made substantial progress toward gender equality in the last century. Despite this progress, poor body image is an issue that continues to plague women, especially in the U.S. Of adult women in the U.S., 63% are dissatisfied with their current weight, and 49% reported being preoccupied with their body weight (Cash & Henry, 1995). The damaging effects of poor body image can be seen in the forms of eating disorders, lowered self-esteem, and decreased enjoyment in every-day activities (Cooley & Toray, 2001; Stephens, Schumaker, & Sibiya, 1999; Tiggemann & Lynch, 2001). These issues have sparked a surge of research regarding the causes and effects of poor body image (Cash & Henry, 1995; Connor-Greene, 1988; Tiggemann & Lynch, 2001). Leisure researchers have explored the effects of body image and suggested that body image may constrain leisure for many women (Frederick & Shaw, 1995; James, 2000).

Researchers have suggested that the body image of girls is shaped by the family unit in which they are raised and particularly by the attitudes and behaviors of their mothers (Benedikt, Wertheim, & Love, 1998; Cook, 2002). As these issues emerge, additional research is needed to explore contributing factors and negative impacts of poor body image. Therefore, the first purpose of this study was to examine how leisure was constrained for young women and their mothers as a result of poor body image and beliefs about appearance.

Received 15 August 2004; accepted 5 January 2006.
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The second purpose of this study was to explore the degree to which maternal body image and beliefs about appearance were related to those of their daughters.

## Review of Literature

### *Leisure Constraints*

The concept of leisure constraints has been studied and examined in people of various ages and during different life stages (Jackson & Rucks, 1995; Mannell & Zuzanek, 1991; Witt & Goodale, 1981; Wood, 1971). Research focused on the central idea that constraints "inhibit peoples' ability to participate in leisure activities, to spend more time doing so, to take advantage of leisure services, or to achieve a desired level of satisfaction" (Jackson, 1988, p. 203). Considerable research has been devoted to identifying some of the commonly reported types of constraints such as time, financial, and absence of facilities or opportunities. Constraints literature has also noted that women are particularly susceptible to many of these constraints (Shaw, 1994).

Identifying barriers to leisure has been an area of interest since the 1950s (Reeder & Linkowski, 1976; Thomas, 1956; Witt & Goodale, 1981; Wood, 1971). In 1987, Crawford and Godbey introduced a model of leisure constraints in an effort to connect existing constraints research and to lay a foundation for future research. Their model proposed that barriers fall into three categories: (a) structural, (b) interpersonal, and (c) intrapersonal. Structural barriers are generally physical obstacles such as geographic location or financial resources. They come between leisure preferences or choices and actual participation. Interpersonal barriers involve the relationships and interactions between individuals such as the inability to locate a suitable partner for participation. Intrapersonal barriers reflect individual attributes and psychological states such as fear, stress, or depression that steer people away from or into specific activities. This model, and other theoretical advancements that followed, helped to link empirical constraint research and laid a foundation for expansions in the conceptual understanding of leisure constraints.

In the late 1980s, researchers began to look at constraints theory from a new perspective by challenging the assumption that leisure constraints necessarily restricted participation (Kay & Jackson, 1991; Shaw, Bonen, & McCabe, 1991). Although leisure constraints research was originally seen as a mechanism for better understanding barriers to leisure participation, research also began to reveal that some barriers to participation might be overcome through negotiation, and that constraints actively shaped leisure experiences in many ways (Jackson, Crawford, & Godbey, 1993; Jackson & Rucks, 1995).

In the 1990s, several models and theories regarding leisure constraints were presented and expanded (e.g., Hawkins, Peng, Hsieh, & Eklund, 1999; Henderson, 1997; Hultsman, 1995; Jackson, 1991, 1993). These studies provided theoretical critiques, explored alternative analyses, and introduced new concepts related to leisure constraints. One of the most significant expansions was regarding the conceptualization of how constraints are experienced. Shaw et al. (1991) suggested that leisure constraints may not necessarily result in reduced participation but may result in decreased enjoyment or even increased participation in certain activities. Shaw et al.'s study and other related literature (e.g., Henderson & Bialeschki, 1993) were instrumental in developing a new paradigm that "incorporated a broader conceptualization of leisure constraints" (Frederick & Shaw, 1995, p. 59).

Frederick and Shaw (1995) expanded constraints theory by suggesting that "participation in leisure activities themselves may be 'constraining"' (p. 59). For women, pressures often result from traditional gender stereotypes, such as the types of activities stereotypically seen as feminine and the pressure for bodily attractiveness (Shaw, 1994). These pressures

can result in women feeling constrained to partake in certain leisure activities such as those that society deems appropriate for women or that would improve their physical appearance. In these cases, women still participated in leisure activities. Societal pressures, however, resulted in constraints by restricting some women from choosing leisure activities for enjoyment or other benefits.

Another area of development that broadened the conceptualization of leisure constraint theory was the idea that even when leisure participation was not reduced, leisure activities may be constrained in the area of enjoyment (Frederick & Shaw, 1995; Jackson, 1997). For instance, one factor found to influence recreational enjoyment has been self-consciousness. For women, self-consciousness may be partially caused by poor body image (James, 2001). James (2000) reported that for many girls embarrassment affected both the frequency and quality of their participation in swimming. To reduce self-consciousness, some of the girls developed strategies to make themselves less visible, including covering up their bodies, staying in groups, swimming at remote venues, and avoiding pools altogether.

Similarly, Nezlek (1999) found that self-perceptions of body attractiveness and social attractiveness were positively related to women's confidence in social interaction and their perceived influence over the interaction. Women who perceived themselves to be less attractive often felt less confident and less powerful in social situations. Because social interaction is a vital aspect of leisure for many women (Kirkcaldy & Athanasou, 1995; Samdahl & Jekubovich, 1997), the implications of perceived attractiveness must be acknowledged when considering the leisure constraints of women.

### *Body Image*

Researchers have consistently established that women in North America are pressured to "attain and maintain a thin body" (Frederick & Shaw, 1995, p. 58). American women are inundated with this drive for thinness through the media and through the attitudes adopted by both women and men (Low et al., 2003). American media are filled with messages that emphasize the importance of appearance and suggest that thinness is a defining characteristic of beauty (Herbozo, Tantleff-Dunn, & Gokee-Larose, 2004; Jambor, 2001). Morry and Staska (2001) found that women reading beauty magazines internalized societal ideals, and this internalization predicted body shape dissatisfaction. Similar studies showed that females of all ages experienced internalization of the "thin ideal" from viewing television and other forms of media (Hargreaves & Tiggemann, 2003; Hofschire & Greenberg, 2002; Stice, Spangler, & Agras, 2001). Consequently, in a society bombarded with media influences, most women are dissatisfied with their body shape or weight, and those who are not have become the exception rather than the rule (Rodin, 1993). According to Rodin, in contemporary society weight is a "normative discontent" (p. 66), and body size dissatisfaction has become part of life for the typical woman.

#### *Maternal Impacts on Body Image*

Besides media's influence on body image for females, familial relationships also influenced levels of weight concern for adolescent girls (McHale, Corneal, Crouter, & Birch, 2001). Researchers support the claim of a relationship between body-related feelings and behaviors of mothers and their daughters (McKinley, 1999; Ogle, 1999; Pike & Rodin, 1991). According to Motley (1997), "Mothers act as vehicles for body image concerns and attitudes about dieting and food" (p. 2409). She asserted that an emotional connection joins mothers, daughters, and food, and that this connection explains the escalating problems Western society has with eating, body image, and eating disorders. Feilke and Chambliss (1992) found that disordered eating in college-aged daughters was strongly associated with

maternal behaviors. Mothers who were perceived as being preoccupied with fat, food, and weight were more likely to have daughters who exhibited disordered eating. Benedikt, Wertheim, and Love (1998) found similar results even when controlling for daughters' actual body weight. Additionally, Tiggemann and Lowes (2002) found that mothers' dietary restraint predicted the degree of monitoring of daughters' but not sons' eating behavior even when actual and perceived weight was taken into account. Through this research, they concluded that "the degree of control over child-feeding might provide a behavioral mechanism for the intergenerational transmission of eating attitudes and beliefs within families" (p. 1).

Mothers may influence not only daughters' attitudes and behaviors but also actual body image and dissatisfaction. Lowes and Tiggemann (2003) found that body dissatisfaction for girls ages 6–8 years was predicted by perception of their mothers' body dissatisfaction. Similarly, Hahn-Smith and Smith (2001) found that adolescent daughters of mothers who believed a greater discrepancy existed between their daughter's current weight and their ideal tended to have lower body esteem scores. They also found that mothers of low body esteem girls were more critical. Hahn-Smith and Smith concluded that these mothers' feelings were communicated to the girls, which in turn affected the girls' body esteem. When examining college-aged women, researchers demonstrated a significant predictive relationship between appearance-related communication of mothers and body image of daughters (Schwartz, Phares, Tantleff-Dunn, & Thompson, 1997). Similar relationships between maternal communication and daughters' body image have been consistently found in populations of varying ages (Lawrence, 1999).

### *Culture and Body Image*

Regardless of the cause, body size dissatisfaction has been identified in many countries, including those cultures where Western media have only been introduced in recent years (Demarest & Allen, 2000; Tiggemann & Ruutel, 2001). According to Tiggemann and Ruutel, "Women cross-culturally choose an ideal figure that is significantly smaller than their current figure" (p. 738). Body image has been studied among populations worldwide, and in the vast majority researchers found women to have negative body image even when controlling for body mass index or actual body size (Gupta, Chaturvedi, Chandarana, & Johnson, 2001; Nishizawa et al., 2003; Tsai, Curbow & Heinberg, 2003). The degree to which women in any culture internalized western ideals is correlated with body image dissatisfaction (Bilukha & Utermohlen, 2002; Jaeger et al., 2002)

The societal pressure for bodily beauty and negative effects of declining body image are particularly a problem in the U.S. (Bann, 2001; Heesacker, Samson, & Shir, 2000; White, Kohlmaier, Varnado-Sullivan, & Williamson, 2003). In the U.S., the ideal of thinness and its effect on women's body image has reached epidemic proportions (Low et al., 2003). In a survey of more than 800 American women, nearly one-half reported negative evaluations of their overall appearance (Cash & Henry, 1995).

Researchers suggested that among American women, cultural identity may act as a buffer to this societal drive for thinness, particularly for African-American and Latina women (Lopez, Blix, & Blix, 1995; Rubin, Fitts, & Becker, 2003). Wildes and Emery (2001) suggested that young women of minority ethnicity are less likely to be dissatisfied with their body weight because they identify with a culture that less strongly associates beauty with thinness. The discrepancy between minority women and Caucasian women, however, was not significant when African Americans who attended predominantly Caucasian universities were studied (James, Phelps, & Bross, 2001). Poor body image appears to be socially learned, and vulnerability to poor body image is heightened by "thin ideal internalization" for women of any race or culture (Bross, 2002, p. 3845). White et al. (2003) suggested that the body image of women of many cultures is steadily declining.

***Negative Effects of Poor Body Image***

Poor body image issues have led to body monitoring, appearance anxiety, disordered eating, and excessive exercise behaviors (Cooley & Toray, 2001; Stephens et al., 1999; Tiggemann & Lynch, 2001). Connor-Greene (1988) found that nearly one-third of teenage girls reported either self-induced vomiting or laxatives use as a weight-loss strategy. Further, in a study of 643 non-anorexic non-obese undergraduate women, only 33% of the subjects reported what could be considered normal eating habits. The degree of disturbed eating was highly correlated with "negative body image, greater tendency to endorse sociocultural beliefs regarding weight and appearance, and interference of weight and appearance concerns with other life domains" (Mintz & Betz, 1988, p. 470). Dissatisfaction with one's figure consistently has been found to increase eating pathology (Cooley & Toray, 2001).

Body dissatisfaction can also affect women's relationships, social and emotional development, and how they perceive self-worth (Cullari, Rohrer, & Bahm, 1998; Kaplan, Busner, & Pollack, 1988; Tiggemann & Williamson, 2000). Nezlek (1999) found that for college women, body image negatively affected day-to-day social interaction. He also suggested that for college women, self-perceptions of social attractiveness were positively related to their confidence in and their perceived influence over social interactions.

Harris (1995) suggested that women's social, emotional, and physical development may even be retarded by body image disturbances. His study, along with others, showed that such disturbances can have a significant negative relationship with self-esteem, self-concept, and beliefs about appearance (Geller, Johnston, & Madsen, 1997; Rodin, 1993; Spangler, 2002). In one study, high school seniors who perceived themselves to be of normal weight displayed greater self-esteem than those who thought they were overweight. Interestingly, women in the study specifically tended to display greater self-esteem if they were actually underweight (Kaplan et al., 1988). These problems have also been observed in children as young as six years old and have led to problem behaviors such as body monitoring, social anxiety, and unhealthy eating behaviors (Vander Wal & Thelen, 2000). Furthermore, these problems have consistently been reported as more prevalent among females than males.

Mintz and Kashubeck (1999) found body image to be poorer among females and the effects more damaging to females than to males. They determined that regardless of race, women reported more body image-related problem attitudes and behaviors than men. Hoyt and Kogan (2001) found that women, especially those under or above average weight, were more dissatisfied with their appearance than men. Connor-Greene (1988) discovered that females dieted and took other weight loss measures more frequently than males. Despite most of the females being within ideal weight range, few were satisfied with maintaining their current weight. Furthermore, Tiggemann and Williamson (2000) reported women exercising more for reasons of weight control and tone than men.

***Body Image and Leisure***

Body image-related research has focused primarily on understanding the relationship of body image to self-attitudes and psychological health. Much less attention, however, has been given to the impact of body image on other life areas such as leisure (Frederick & Shaw, 1995). Since research indicates that body image affects self-esteem and self-esteem affects leisure participation and constraints, researchers need to turn attention to the connection between body image and leisure (Dattilo, Dattilo, Samdahl, & Kleiber, 1994; Raymore, Godbey, & Crawford, 1994).

Several researchers found a connection between participation in leisure activities and improved body image (Silva & Klatsky, 1984). Imm and Pruit (1991) determined that level of physical activity positively influenced body image. Armstrong (1994) discovered that

body image was improved for college students who participated in a personalized fitness course. Similarly, Totenbier (1994) determined that dance and movement therapy improved body image for participants with eating disorders. Participation in other leisure activities such as wilderness experiences (Arnold, 1994), weight training (Depcik & Williams, 2004) and art programs (Kronick, 1998) also has been linked to improvement in body image.

After investigating the influence of leisure participation on body image, a few researchers examined the possible impact of body image on leisure. Ingledew and Sullivan (2002) found that for adolescent girls, body image affected exercise motivations and influenced exercise adherence. This type of observation has been labeled social physique anxiety. Social physique anxiety is a subtype of social anxiety that is experienced "in response to other people's evaluations of one's physique" (Marquez & McAuley, 2001, p. 2). It has been associated with both low (Lantz, Hardy, & Ainsworth, 1997) and excessive (Frederick & Morrison, 1996) exercise levels. Social physique anxiety has impeded physical activity participation particularly in social settings and led to exercising more for body appearance reasons (Crawford & Eklund, 1994). Furthermore, Russell and Cox (2003) suggested that social physique anxiety is related to body dissatisfaction. If body image is related to social physique anxiety and social physique anxiety has been shown to limit where, why, and how frequently individuals exercise, then body image may be viewed through the lens of leisure constraints.

Researchers have addressed the issue of body image as it relates to leisure choices and leisure constraints (Frederick & Shaw, 1995; James, 2000; Henderson, Stalnaker, & Taylor 1988). Frederick and Shaw found that although body image did not seem to prevent participation in aerobics, body image concerns constrained the enjoyment of aerobics as a leisure activity. The data indicated that the reduction of enjoyment was related to the clothing worn for aerobics and to competition over appearance and body weight among participants. Frederick and Shaw's study suggested that body image "can constrain leisure in some situations, although it is not a constraint in the traditional sense of preventing participation" (p. 57). Similarly, James (2000) found that for adolescent girls in a pool setting, body image constrained participation as well as enjoyment. Her research supported the assumption that physically active leisure activities were particularly susceptible to appearance-related constraints, because they were often associated with appearance improvement and tended to engender appearance consciousness.

### *Summary of Literature and Hypotheses*

Leisure constraints theory development has included rethinking leisure constraints and exploring them in life domains previously untouched. One of these areas that has been suggested, but not fully developed, is body image. Given that body image is declining for American women, the current study examined the relationship among body image, beliefs about appearance, and levels of constrained leisure for college women and their mothers. We hypothesized that body image concerns were related to leisure constraints for both groups and that appearance-related constraints were prevalent for both mothers and daughters. We further hypothesized a relationship between mothers and daughters and their body image concerns and leisure constraints.

## Methods

### *Sample*

The participants in this study were female students enrolled at a private American university and their mothers. The sample consisted of 116 students and 76 of their mothers ($n = 192$).

The lower number of mothers responding was due to only having access to the students and relying on them to contact their mothers. A further limitation regarding the mothers' involvement was that participation required access to a computer, which would more likely present an obstacle to the mothers than the students. Responding mothers were predominantly white (92%) and married (91%) with ages ranging from 39 to 63 years ($M = 47.6$, $SD = 4.9$). The majority of daughters were white (93.9%) and not married (87.8%), with ages ranging from 18 to 30 ($M = 20.53$, $SD = 2.6$).

### *Procedures*

Study participants were recruited at the beginning of several university general education classes and from among a group of students living in campus housing during winter semester of 2004. An e-mail containing a three-digit code was sent to each participant with a short paragraph of instructions. The instructions referred participants to an online questionnaire. The students were asked to contact their mothers and supply them with the Internet address and the same three-digit code. The three-digit code was used to match each mother/daughter pair. On the website, an opening paragraph introduced the study and explained that participation was voluntary and that completion of the questionnaire indicated consent. This introduction also informed the participants that information provided by them was anonymous as their names and/or e-mail addresses did not appear on the questionnaire. Each mother and daughter individually completed the online questionnaire. Questionnaires were automatically e-mailed to the principle investigator upon completion.

### *Instrumentation*

The online questionnaire included three instruments. The Leisure Constraints Scale (Raymore, Godbey, Crawford, & von Eye, 1993) was used to measure barriers to leisure in three areas: intrapersonal, interpersonal, and structural. In addition, four items were added to address appearance-related constraints to leisure. The Body Image Assessment Scale (Thompson & Gray, 1995) assessed how near to her ideal a participant believed her own body size was. The third instrument was the Beliefs About Appearance Scale (Spangler & Stice, 2001). This scale determined the intensity of body image awareness in the areas of interpersonal interactions, personal achievement, self-perception, and emotions. Participants were also asked to supply demographic information regarding age, ethnicity, marital status, height, and weight.

#### *Leisure Constraints*

The Leisure Constraints Scale (LCS) assessed the level of inter, intra, and structural constraints, and provided an overall score regarding the participants' leisure constraints (Raymore, et al., 1993). Participants were asked to indicate their agreement or disagreement with a total of 21 statements. The instrument included statements such as "I'm too shy to start a new leisure activity" and "I am more likely to do a new leisure activity if the facilities I need to do the activity are not too crowded." Responses to each statement were recorded on a scale from one to four (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Scores from the statements were combined to provide an assessment of leisure constraints, with a high score indicating a high level of leisure constraints. Acceptable psychometric properties have been reported for the LCS (Raymore et al.). In the current study, adequate internal consistency coefficients were found for mothers ($\alpha = .82$) and daughters ($\alpha = .77$).

None of the statements on the original scale specifically addressed appearance constraints, so four additional statements were added to target appearance issues. These

statements were designed to assess the existence of the types of appearance-related constraints suggested in previous literature (Frederick & Shaw, 1995; James, 2000). These items were structured and scored in the same manner as the other leisure constraints statements. The four statements were: 1) "There are some leisure activities that I choose NOT to participate in or participate in less frequently than I would like due to concerns about my appearance"; 2) "Sometimes I do NOT enjoy my leisure activities as much as I could due to concern about my appearance"; 3) "I spend some of my leisure time in activities that I feel would improve my appearance even when I would prefer another leisure activity"; and 4) "There are times I choose NOT to participate in physically active recreation activities (e.g., swimming, running, dancing, etc.) due to concern about my appearance." These four items demonstrated adequate internal consistency for the mothers ($\alpha = .79$) and daughters ($\alpha = .77$) in this sample. Therefore, the four items were treated as an appearance constraint subscale.

***Body Image***

Thompson and Gray's (1995) Body-Image Assessment Scale (BIAS) consisted of nine female drawings that were designed with detailed features and were of "precisely graduated sizes" (p. 258). Participants were asked to indicate the figure that most closely represented their current body shape as well as the one that most closely represented their ideal body shape. The discrepancy between these two responses was used to assess the participant's level of dissatisfaction with her current body size. Participants were also asked to indicate on a 5-point Likert scale their comfort level with their current body size. Evidence of test-retest reliability, concurrent validity, and validity of the drawings has been reported by Thompson and Gray.

***Beliefs about Appearance***

The Beliefs About Appearance Scale (BAAS) provided a useful indicator of the degree to which the participant believed that appearance might affect everyday life (Spangler & Stice, 2001). Participants indicated their agreement with 20 statements comprising four subscales: Self-view, Feelings, Achievement, and Interpersonal Interactions. For example, one of the statements read, "People will think less of me if I don't look my best." Responses were measured on a five-point scale from zero ("not at all") to five ("extremely"). Scores from the statements were combined to provide an assessment of beliefs about appearance. High scores indicated participants who placed more emphasis on appearance.

Evidence of validity and reliability has been reported and the BAAS was found to be an "internally-consistent, unidimensional measure that exhibited both construct and criterion-related validity" (Spangler & Stice, 2001, p. 813). The internal consistency coefficients ranged from .94 to .95. For the sample in our study, internal consistency was demonstrated for both mothers ($\alpha = .94$) and daughters ($\alpha = .95$).

These three instruments were followed by two questions requesting a list of the four activities in which the participant most often engaged and the four activities most enjoyed by the participant. The participant was then asked to explain reasons for any discrepancies in the two lists. These questions were used to gain more insight regarding constraints to activities that may cause appearance-related anxiety. For example, if a participant listed swimming as a highly enjoyed activity but one not frequently participated in, the discrepancy might suggest an appearance-related constraint if the participant indicated she felt too uncomfortable with her body to wear a swimming suit. The final two questions were also used to indicate constraints *into* certain activities that provide less enjoyment. For example, for some respondents running might be listed as a frequent activity but not listed as a highly enjoyed activity. This discrepancy may suggest a body image related leisure constraint if

the participant responded that running was only chosen as a weight-loss method. These open-ended questions were asked in an effort to add depth of understanding to the results of questionnaire responses.

Finally, participants were asked to provide information regarding age, ethnicity, marital status, height and weight. Height and weight were used to compute body mass index (BMI), a measure of weight to height squared, in which weight is measured in kilograms and height in meters. Literature has shown self-report to be an adequately accurate method to assess BMI (Brooks-Gunn, Warren, Rosso, & Gargiulo, 1987; Goodman, Hinden, & Khandelwal, 2000; McLaren, Hardy, & Kuh, 2003). According to the National Heart, Blood and Lung Association, normal BMIs range from 18.5 to 24.9 and overweight BMIs from 25 to 29.9. BMIs of 30 or greater are considered obese and those less than 18.5 are considered underweight (NHLBI, n.d.).

### *Analysis*

Pearson correlations among the predictor variables were computed to check for multicollinearity. Although some significant correlations were found, the magnitude of the coefficients did not suggest multicollinearity (Tabachnick & Fidell, 1996). Pearson correlations between sociodemographic variables and the dependent variable were also analyzed to identify possible controlling factors that could be included in the regression equations. Based on the correlations, no statistical or theoretical reasons were found to warrant analysis of demographic variables or their inclusion in the regression analyses.

To guard against increasing the possibility of Type I error, the independent variables of mothers and daughters were analyzed using multivariate regression models. The nonsignificant factors were then taken out in a backwards selection procedure to find the best fitting model for each scenario (analyzing mothers and daughters together and then separately). To test the hypothesis that body image concerns were related to leisure constraints, the regression models were analyzed to determine which factors significantly predicted the individual response variables in each model. Multiple regression analysis along with matched pairs t-tests were used to test the hypothesis that a relationship existed between the body image concerns and leisure constraints of mothers and daughters.

The open-ended question responses provided interesting insights but were limited by lack of response. Although some mothers and daughters described what could be interpreted as appearance-related constraints, many women either did not provide explanations for discrepancies in their activities or attributed them to other factors. Some of the responses provided points of discussion as well as offered insight into possible appearance-related constraints. Overall, however, not enough data were available to warrant further analyses.

## Results

The body image scores for this sample ranged from $-6$ to 3, with mothers having a mean score of $-2.17$ ($SD = -1.39$), and daughters a mean score of $-1.45$ ($SD = 1.20$). A score of zero demonstrated a feeling of satisfaction with one's body size, whereas a negative score demonstrated a desire to be thinner, and a positive score indicated a desire to be larger. The scores in this sample indicated that 93.4% of the mothers and 84.5% of the daughters believed their current body shape to be larger than their ideal.

Mothers' BMIs ranged from 19.1 to 49.2 ($M = 26.87$, $SD = 5.77$), while daughters' ranged from 17.8 to 39.9 ($M = 22.34$, $SD = 3.32$). The range and distribution of BMIs present in the sample was comparable to normative American samples and helped mitigate some of the concern inherent in the self-selection methodology (Huang, et al., 2003; Mokdad

et al., 2000). For this sample, BMI was found to be negatively correlated with appearance constraints ($r = -.363$, $p < .001$) as well as body image ($r = -.665$, $p < .001$).

### *Appearance-Related Constraints*

Beliefs about appearance scores (BAAS) ranged from 0 to 55 for mothers and from 0 to 76 for daughters with mothers having a mean of 21.16 ($SD = 14.06$), and daughters having a mean of 22.03 ($SD = 15.01$). The total leisure constraint scores for this sample ranged from 41 to 83 for mothers and 46 to 86 for daughters. The mothers had a mean of 66.95 ($SD = 9.56$), and the daughters a mean of 68.57 ($SD = 7.83$). These findings suggested that participants in the sample represented a wide range of beliefs about appearance and leisure constraints.

In response to questions focusing on appearance-related constraints, 37% of the daughters and 57% of the mothers indicated that they agreed or strongly agreed that activities existed in which they chose not to participate due to concern about their appearance. Additionally, 41% of daughters and 54% of mothers indicated that they agreed or strongly agreed with a statement regarding reduced enjoyment due to appearance concern. For the daughters, 61% agreed or strongly agreed that they spent time participating in leisure activities that were meant to improve appearance even though they preferred other activities, and 59% of the mothers agreed or strongly agreed with the same statement. Finally, 36% of the daughters and 57% of the mothers agreed or strongly agreed that they choose not to participate in physically active recreation activities due to appearance concerns. To test the hypothesis that body image concerns were related to leisure constraints, the mothers and daughters were analyzed separately using leisure constraints as the dependent variable and body image, beliefs about appearance, and body comfort level as the independent variables.

### *Daughters' Constraints*

To examine body image, beliefs about appearance, and leisure constraints for daughters, multiple regressions used total scale scores as well as subscale scores as independent variables. Body image ($\beta = -.227$, $p < .05$) and beliefs about appearance total scores (BAAS) ($\beta = .250$, $p < .01$) were significant predictors in the regression model that accounted for 14.6% of the variance ($R^2 = .146$, $df = 2$, $p < .01$) in total leisure constraints for daughters (see Table 1). Because the questions in the original three leisure constraints subscales (structural, intrapersonal, interpersonal) did not address appearance-related concerns, analyses were also run using the appearance-related subscale as the dependent variable. Body image

**TABLE 1** Regression Analysis Summary of Total Leisure Constraints

| | B | SE B | B |
|---|---|---|---|
| Daughters (N = 116) | | | |
| Belief about appearance | .130 | .047 | .250** |
| Body image | −1.487 | .592 | −.227* |
| Mothers (N = 76) | | | |
| Belief about appearance | .190 | .077 | .280** |
| Body image | −.789 | .780 | −.115 |

*Note*. $R^2 = .146$ for Daughters ($df = 2$, $p < .01$); $R^2 = .109$ for Mothers ($df = 2$, $p < .01$). *p ≤ .05; **p ≤ .01.

**TABLE 2** Regression Analysis Summary of Appearance-Related Constraints

| | B | SE B | B |
|---|---|---|---|
| Daughters (N = 116) | | | |
| Belief about appearance | .043 | .017 | .216** |
| Body image | −.842 | .225 | −.341** |
| Body comfort level | −.659 | .323 | −.190* |
| Mothers (N = 76) | | | |
| Belief about appearance | .119 | .019 | .531** |
| Body image | −.555 | .248 | −.246* |
| Body comfort level | −.464 | .333 | −.151 |

*Note*. $R^2 = .334$ for Daughters ($df = 3$, $p < .01$); $R^2 = .490$ for Mothers ($df = 3$, $p < .01$) *p ≤ .05; **p ≤ .01.

($\beta = -.341$, $p < .01$), BAAS ($\beta = .216$, $p < .01$), and body comfort level ($\beta = -.190$, $p < .01$) were significant predictors in the regression model that accounted for 33.4% of the variance ($R^2 = .334$, $df = 3$, $p < .01$) in the appearance-related constraints subscale (see Table 2). These results suggested that low body image and body comfort level correlated with increased appearance-related leisure constraints. They further suggested that high BAAS scores, or feeling that appearance was important to success and happiness, correlated with increased leisure constraints.

Regressing total leisure constraints on the four subscales of the BAAS did not produce a significant model. In a bivariate analysis, however, a significant correlation was found between total leisure constraints and the interpersonal interactions subscale of the BAAS ($r = .171$, $p < .01$). This finding may suggest that views about the importance of appearance regarding social interaction may influence leisure constraints. When the appearance constraints subscale was regressed on the four subscales of the BAAS, the interpersonal interactions subscale was the only significant predictor ($\beta = .307$, $p < .05$) in the model that accounted for 17.1% of the variance in appearance-related constraints ($R^2 = .171$, $df = 4$, $p < .01$) (see Table 3). In bivariate analysis, each of the BAAS subscales was also

**TABLE 3** Regression Analysis Summary of Appearance-Related Constraints Regressed on BAAS Subscales

| | B | SE B | B |
|---|---|---|---|
| Daughters (N = 116) | | | |
| Feelings | −.026 | .114 | −.037 |
| Interpersonal | .225 | .109 | .307* |
| Self-view | .156 | .120 | .217 |
| Achievement | −.042 | .094 | −.062 |
| Mothers (N = 76) | | | |
| Feelings | .549 | .116 | .685** |
| Interpersonal | −.013 | .125 | −.014 |
| Self-view | .181 | .112 | .236 |
| Achievement | −.167 | .108 | −.228 |

*Note*. $R^2 = .171$ for Daughters ($df = 4$, $p < .01$); $R^2 = .516$ for Mothers ($df = 4$, $p < .01$). *p ≤ .05; **p ≤ .01.

moderately correlated with the appearance constraints subscale (interpersonal interactions, $r = .393$, $p < .01$; achievement, $r = .294$, $p < .01$; self-view, $r = .330$, $p < .01$; feelings, $r = .325$, $p < .01$). These results may imply that attitudes regarding the importance of appearance in all aspects of life were connected to appearance-related leisure constraints. Views concerning the importance of appearance to success in interpersonal interactions may, however, play a more influential role among college-age women.

### *Mothers' Constraints*

Similar analyses were conducted to examine the influence of body image and beliefs about appearance on leisure constraints for mothers. The beliefs about appearance total score (BAAS) ($\beta = .280$, $p < .01$) was the only significant predictor in the regression model that accounted for only 11% of the variance ($R^2 = .109$, $df = 2$, $p < .01$) in total leisure constraints for mothers (See Table 1). Body image ($\beta = -.246$, $p < .05$) and BAAS ($\beta = .531$, $p < .01$) were significant predictors in the regression model that accounted for almost half of the variance ($R^2 = .490$, $df = 3$, $p < .01$) in the appearance-related constraints subscale (see Table 2). These results were similar to the daughters' in that appearance-related leisure constraints were negatively correlated with body image and body comfort level and positively correlated with BAAS.

When the total leisure constraints scores were regressed on the four subscales of the BAAS, none were found to be significant predictors. In bivariate analysis, however, self-view ($r = .301$, $p < .01$), feelings ($r = .336$, $p < .01$), and interpersonal interactions ($r = .249$, $p < .05$) were significantly related to total leisure constraints. When the appearance constraints subscale was regressed on the four subscales of the BAAS, the feelings subscale ($\beta = .685$, $p < .01$) was the only significant predictor in a model that accounted for more than half of the variance ($R^2 = .516$ $df = 4$, $p < .01$) in the appearance-related constraints subscale (see Table 3). These findings were different from the daughters' findings and suggested that the most influential area of beliefs about appearance on the mothers' leisure constraints was that of personal feelings regarding appearance.

### *Mother/Daughter Relationships*

Pearson correlations were used to determine the relationship between mothers' and daughters' body images and beliefs about appearance. Significant yet weak correlations were found between the beliefs about appearance total scores (BAAS) of mothers and daughters ($r = .297$, $p < .01$) and between the ideal body shape responses of mothers and daughters ($r = .295$, $p < .01$). No relationship was found, however, between mothers and daughters and their overall body image, which was computed as the difference between ideal body shape and current perceived body shape. Regression of daughters' BAAS on mothers' body image and mothers' BAAS, however, did produce a statistically significant model ($R^2 = .119$, .109, $df = 2$, $p < .01$) in which both independent variables were significant predictors. This finding suggested that for women in this study, the body image ($\beta = .246$, $p < .01$) and beliefs about appearance ($\beta = .531$, $p < .01$) of mothers significantly predicted the daughters' beliefs about appearance.

As the data in this study included matched pairs of mothers and daughters, four t-tests were computed to further compare the body image concerns of mothers and daughters (see Table 4). The analyses revealed no statistically significant difference between the BAAS scores of mothers and daughters ($t = -.094$, $df = 72$, $p < .925$) or the appearance-related constraints of mothers and daughters ($t = -1.715$, $df = 72$, $p < .091$) suggesting a familial relationship between mothers and daughters on these two variables. Analysis regarding body

**TABLE 4** Paired T-test Analysis Summary of Mothers and Daughters (N = 76)

| | *T* | *df* | *p* |
|---|---|---|---|
| Body image | 3.845 | 71 | .001** |
| Body comfort level | 3.952 | 72 | .001** |
| Beliefs about appearance | −.094 | 72 | .925 |
| Appearance-related constraints | −1.715 | 72 | −.091 |

*Note.* * $p \leq .05$; ** $p \leq .01$.

image ($t = 3.854$, $df = 72$, $p < .01$) and body comfort levels ($t = 3.952$, $df = 71$, $p < .01$) did reveal, however, statistically significant differences between of mothers and daughters. Therefore, no generational relationship existed.

## Discussion

Poor body image was prevalent among the participants in this study. Results supported previous research that cites body image as a widespread problem for American women (Rodin, 1993). A negative body image was reported by 88% of the women in the sample. The majority of both mothers and daughters reported feeling that their ideal body shape was smaller than their current body shape. A subsequent concern about their appearance was related to a variety of leisure constraints for many of them.

### *Appearance-Related Constraints*

Almost all of the women in the sample indicated appearance-related leisure constraints. These constraints included four types: constraints to participation, constraints to enjoyment, constraints to physically active leisure, and constraints into activities that would promote weight loss. More than 92% of the women in this study reported experiencing at least one of the four types of appearance-related constraints. The type of constraint was clarified by participant responses on the open-ended question regarding the discrepancy between frequent leisure activities and those activities most enjoyed. One daughter responded, "I am out of shape and a bit embarrassed at my physical appearance." One mother responded, "[I enjoy swimming, but] I'm too big to swim in public." Another stated, "I used to love ballroom dancing, but I quit because I got too fat." Interestingly, this particular woman's body mass index was within the normal range.

Several mothers and daughters made comments suggesting that certain physically active leisure activities in which they frequently participated (e.g., running, weight lifting) were not enjoyed yet participated in for the sake of weight loss. One mother stated, "I only walk or run in an effort to keep my weight good." A daughter commented, "Of course I don't enjoy exercise, I just do it to lose weight." About 45% of the women in this study chose not to participate in some leisure activities because of concern about their appearance, or participated in activities that they did not enjoy just to lose weight (60%). Nearly 46% of these women also experienced reduced enjoyment in the activities that they chose due to concerns about their physical appearance.

These findings have direct implications for leisure constraints theory. Little constraints literature acknowledges appearance-related concerns as an intrapersonal constraint. The results of this study, however, suggested that appearance dissatisfaction represented a prevalent constraint among college-aged and middle-aged women. Further research is warranted. The

findings support a movement toward a broader conceptualization of constraints theory and broader understanding of the ways in which constraints are experienced. For women in this study, constraints were not experienced only in the form of reduced participation, but also reduced enjoyment and choice.

This study supported findings from James (2000) as well as Frederick and Shaw (1995). They suggested that appearance concerns pose a serious constraint to the leisure choices and leisure enjoyment of women. Women in this study reported reduced participation in certain leisure activities, particularly physically active leisure, due to concern about their physical appearance. This finding was likely due to the body-focused nature of many physical activities. Additionally, the current study supported research by Frederick and Shaw whose participants experienced reduced enjoyment in activities due to appearance concerns. Frederick and Shaw suggested that this type of constraint is a product of social comparison. Our results suggested that for many women with poor body image, body-focused leisure activities are less enjoyable due to preoccupation with bodily appearance.

Some findings also supported the hypothesis concerning the relationship between the body image, beliefs about appearance, and leisure constraints of mothers and their daughters. Results suggested that mothers influence their daughters' beliefs regarding the importance of appearance. Findings suggested that a familial relationship existed regarding attitudes, but that for body image and body comfort level no relationship existed. This result could be due to a difference in body size between mothers and daughters or to generational differences.

Findings indicated that appearance concerns constrained leisure not only for the college-aged women but also for middle-aged mothers. This study supported conclusions by Tiggemann and Lynch (2001) that body image remains a constant issue throughout the life span. The study also supported Tiggemann and Lynch's conclusions that beliefs about the importance of appearance slightly improved over the life span. In the current study, the BAAS scores of the mothers were lower than those of the daughters. The mothers perceived appearance to be less important to their lives. As women age, even though their body image may become more negative, their attitudes regarding the importance of appearance on their lives may improve somewhat.

In response to four statements regarding appearance-related constraints, more than 56% of the mothers sampled agreed or strongly agreed with each, whereas the average percentage of daughters agreeing with these questions was just less than 43%. This finding suggested that although the mothers tended to have a healthier view as to the importance of appearance in everyday life, their leisure was slightly more constrained by their own appearance than the daughters. The higher constraint for the mothers may be a result of increased body mass index (BMI). The mothers' BMI was, on average, more than 20% higher than the daughters. For women in this sample, BMI or actual body size was negatively correlated with body image and appearance constraints. In other words, women who were larger tended to have poorer body image and more appearance-related leisure constraints. By having higher BMIs, mothers were more likely to experience higher levels of appearance-related constraints.

The only statement with which the daughters agreed more often than the mothers was one regarding participation in activities for the purpose of weight loss. Interestingly, these results suggested that the mothers suffered more from lack of enjoyment or lack of participation due to appearance-related concerns. The daughters who generally had a lower frequency of obesity were more often constrained into activities that promoted weight-loss.

### *Implications and Recommendations for Future Research*

Results of this study suggested that concerns about body image should not be restricted to mental health professionals but also must be acknowledged by recreation professionals.

Concerns about appearance affect not only a disordered few but a large percentage of the female population (Cash & Henry, 1995). Understanding the constraints women face can aid recreation professionals in providing leisure opportunities that feel "safe" to women. For example, many women may be more comfortable in female-only weight rooms or fitness classes. Recreation providers can address this issue by supplementing the high number of body-focused activities (e.g., dancing, swimming, gymnastics) that are currently highly accessible to women (Shaw, 1994), with activities that are less body focused (e.g., hockey, art, boating) and currently less accessible. Those activities that are inherently body focused can be improved by directing the focus towards goals of improved health, skill, and autotelic enjoyment, rather than appearance.

Implications of this research may also be beneficial for health-care providers in understanding and utilizing leisure. Understanding the reasons women do or do not participate in certain recreational activities can provide a view of possible roots of health problems rather than symptoms alone. For example, some women may feel uncomfortable participating in physical activities such as swimming or running. These same women may seek professional help to address weight loss, cardiovascular health, or other fitness-related issues. If health-care professionals are conscious of appearance-related concerns that are constraining leisure participation, they can spend time helping their patients improve body image and beliefs about appearance, thus building a foundation for future fitness strategies.

Future research is needed to explore specific ways that appearance-related constraints can be reduced. More research is also needed to explore the effect of appearance concerns on the leisure lives of other populations. The participants in this study were mainly white and middle-class. Research regarding the body image and leisure of people with other income levels and ethnic backgrounds would help improve generalizability of this study and allow for comparison. Further investigation is also needed to examine the similarities and differences of these issues among women in diverse geographic locations. The current findings are limited by the self-selected sampling method. Future research utilizing broader segments of the population and/or random sampling will allow for increased generalizability of findings. Finally, more qualitative research will enhance understanding of ways that women experience constraints due to body image, how they negotiate those constraints and how they differ by life stage and/or person.

One final point important to recognize regarding the current study is that the intent was not to point out the issues of individual women, but rather to bring awareness to the impact of societal attitudes on the lives of American women. Body image represents a social constraint (Henderson, 1997) perpetuated by societal gender attitudes and media influence. To assume that it is the individual's problem "is to miss an important aspect of social responsibility" (p. 456). The visible symptom seems to be that women are constrained in their leisure experiences because they are dissatisfied with their bodily appearance. The root of the problem, however, lies in the fact that women often feel tremendous social pressure to conform to an unreasonable ideal of physical beauty (Hawks, 2001). Raising awareness of this fact is the key to helping women dispel the idea that physical exercise is drudgery that must be done in pursuit of a socially acceptable body size.

Along with changing the way individual women see themselves, it is imperative that we change the messages about what constitutes beauty. Awareness and changes in societal attitudes can help women feel the freedom to choose leisure activities that will provide them with the most benefit to body, mind, and spirit as well as the freedom to enjoy the choices they make.

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