Age and gender differences in body image over the life span: Relationships between physical appearance, health and functioning

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Abstract

This research investigates gender and age differences in men and women regarding their degree of self-satisfaction with their bodies from youth to old age. Furthermore, we investigate those factors that govern body image in the middle-aged and elderly based upon hypotheses of a gradual shift in concerns from physical appearance to health and bodily functioning. Age and gender differences were measured with a questionnaire using a set of variables including body satisfaction, degree of body consciousness (related to appearance, health, and bodily functioning), and body image in a sample of 698 people between the ages of 18 and 84 years old. Participants were divided into eight groups by gender and age. We conducted a two (gender) by four (age group) two-factor analysis of variance. The results showed that women had lower levels of body satisfaction than men, and these gender differences did not diminish with age. The youngest age group was significantly more dissatisfied with their bodies and showed a higher degree of appearance related consciousness than did other age groups of both genders. Furthermore, women showed a higher degree of appearance related consciousness than men. The oldest age group was more conscious of their health and functioning than the late adulthood group. Concern with appearance tended to decrease gradually with age; the youngest age group had more negative appearance body images than older age groups. Regarding health and functioning, the oldest age group of women tended to have more negative body mages than their male counterparts. Despite the decline of physical appearance in adulthood, the results showed that the older generation held positive attitudes towards their bodies. This discrepancy is presumed to indicate that older generations did not attach as much importance to their physical appearance, and that younger generations were under greater pressure to pursue ideal body images of a thin body.

Key words: Body image, age differences, gender differences, physical appearance, health and functioning.

Introduction

Maintaining a physical appearance that is youthful, attractive, and healthy-looking has been a subject of intense research and media attention (Johnston, Reilly & Kremer, 2004). Persistence in attempting to control the body through exercise and healthy living for the “endless pursuit of youth” has become a sort of contemporary obsession (Seid, 1989). Some worry that the social emphasis on physical youthfulness and attractiveness
also promotes negativity about aging and old people.

Much sociological and psychological research has been conducted in recent years about the feelings that people have regarding their own bodies, their body images. Cash and Szymanski (1992) contend that the evaluations and emotions surrounding body image are elicited from discrepancies between internalized cultural physical ideals and one’s self-perceived body image. Cash and Pruzinsky (1990) argue that the body image is a product of a multidimensional self-attitude toward one’s body, particularly its size, shape, and aesthetics. Witkin (1965) states that the body image evolves as part of the individual aging phenomenon, and that body images form throughout the development process, affected by biological, psychological, and social changes.

The vast majority of social science research on body image deals primarily with young women. There has been a paucity of research on middle-aged or elderly men and women. In terms of gender, it is generally agreed that women have more negative body images than men (Cash, Winstead & Janda, 1986; Franzoi, 1995; Franzoi & Koehler, 1998; Janelli, 1993; Mintz & Betz, 1986; Pliner, Chaiken & Flett, 1990; Rozin & Fallon, 1988; Shibata, 2003; Takeuchi, Hayano, Hori & Mukai, 1993; Tiggemann, 1992). Women’s evaluation of their body weight and shape is the nucleus of their body image (Rodin, Silverstein & Striegel-Moore, 1984). The recent standard for a woman’s ideal body is to be thin, and the yearning to be thin is excessively emphasized (Davies, 1990; Franzoi & Herzog, 1987; Mintz & Betz, 1986; Urata, 2001).

Surveys of older women reported that two-thirds of these women desire to be thin, even if they are already at a normal body weight (Allaz, Bernstein, Rouget, Archinard & Morabia, 1998). Another study reported that the response of “losing weight” was listed second after “memory impairment” as the greatest individual problems faced by elderly women (Chirsler & Ghiz, 1993). Rodin et al. (1984) argue that this generalization of feelings of discontent with body weight is “normative discontent”, and consider this discontent to have penetrated throughout a broad generational range that includes the aged. McKinley (1999) says that elderly women, as well as middle-aged women, survey their physical appearance objectively, and that a decline in physical appearance becomes an obstacle in women’s mental health.

Some research, which cumulatively includes a broad age range, indicates that the older people are the more negative their body images are. Many studies of men and women from adolescence to old age indicated that women have a greater sense of dissatisfaction with their bodies than men, and this tendency increases as they advance in age (Altabe & Thompson, 1993; Ross, Tait, Grossberg, Handal, Brandeberry & Nakra, 1989; Rozin & Fallon, 1988; Tiggemann, 1992). In a longitudinal study of women, body dissatisfaction and eating disorder behaviors were observed to increase over a six-year period (participants’ initial ages were 25.1 to 42.7 years) (Gupta & Schork, 1993).

In contrast, other research indicates that the older a person is the less negative their body image is likely to be. Such research includes studies of men and women from youth to old age, which indicate that concerns about physical appearance decline moderately in conjunction with aging (Cash, et al., 1986; Franzoi & Koehler, 1998; Hetherington & Burnett, 1994; Heatheron, Mahamed, Striepe, Field & Keel, 1997; Pliner, et al., 1990). Based on longitudinal research with women (participants’ initial ages were 27 to 55 years), a gradual elimination of feelings of body dissatisfaction, chronic dieting, and eating disorder symptoms were all reported over a ten-year period (Heatheron, et al., 1997).

Furthermore, other research studies have reported that no great changes were apparent in body image within any generation, and that discontent with the body remains generally constant throughout the life span.
This research reports that, regardless of the generation, all women have a negative body image and dissatisfaction similar to adolescents, and they are concerned about their weight or physical appearance (Ben-Tovim & Walker, 1994; Davis & Cowles, 1991; Garner, 1997; Paxton & Phythian, 1999; Rozin & Fallon, 1988; Stevens & Tiggemann, 1998; Tiggemann & Lynch, 2001; Tiggemann & Williamson, 2000; Webster & Tiggemann, 2003; Wilcox, 1997). In qualitative studies, there are reports that women of all generations, including the elderly, have a strong desire for the thin idealized body of female beauty; these women equate slimness or thinness with sexual attractiveness and physical health (Tunaley, Walsh & Nicolson, 1999). Researchers also report that in old age the majority of women experience declining concerns about their physical appearance. In fact, the aging process can serve to highlight the tensions between women’s individual experiences of their bodies as uncontrollable, and the societal construction of a malleable body that the individual is obliged to control (Johnston, et al., 2004). According to Hurd (2000), elderly women who internalized the framework of sociocultural beauty described their bodies in pejorative terms. At the same time, however, Hurd contends that women are aware of the importance of health. By giving attention to health and focusing on physical independence, women are able to self-regulate deterioration in physical functioning and reconcile themselves to the negative feelings that they have regarding the loss of physical attractiveness.

Thus, the research on changes in body image over the life span does not yet reflect a general consensus. The apparent contradictions within the research literature regarding body concern and satisfaction across the life span point to a need for further in-depth research on this topic.

Japanese research, for the most part, has also targeted young women, and research results have indicated that they have strong aspirations for a thin body. The findings that women have more negative feelings than men about their body images and aspirations to be thin is consistent with research conducted in Western countries (Fujise, 2003; Kishikawa, Nishida, Masaki, Nanri, Wada & Fukui, 2003; Urata 2001). In research conducted on all ages in Japan, from youth to middle and old age, women were found to reach a peak of “positive body self” in late adulthood, and a decline was apparent in old age (Shimonaka, 1988). In another study, middle-aged women demonstrated stronger feelings of body satisfaction than young women did (Kuniyoshi, 1997). Shibata (2003) conducted research with both men and women from ages 40 to 89 with regard to self-awareness about physical strength and self-image about physical capabilities. Shibata found that self-awareness of deteriorating physical strength and insufficient stamina was evident after age 70, and a tendency of comparing oneself more to others of about the same age as age advances was also found.

Anxiety about physical appearance and health occurs in old age with both men and women (Hennessy, 1989). Developmental psychologists have labeled the changes that occur in physical health and functioning in old age as the critical issues of old age. Havighurst (1972) proposed six developmental issues in old age, among which he contends that “adapting to deterioration in physical strength and health” is one of the most critical losses occurring in old age, and is an issue that compels both a response and adaptation. Peck (1968) cites “body transcending versus body preoccupation” among the three tasks of old age. Old age is thought to be a time when, in addition to deterioration in physical appearance, the effects due to declining health and bodily functioning also emerge as new issues. However, there is scant empirical research relating to body image that examines the full life span of adult life from the perspective of “physical appearance and health and functioning.”

The purpose of this research is to investigate gender and age differences in men and women regarding
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their degree of self-satisfaction with their bodies from youth to old age. Furthermore, we investigate those factors that govern body image in the middle-aged and elderly based upon hypotheses of a gradual shift in concerns from physical appearance to health and bodily functioning. Our hypotheses below are derived from the previous research findings.

Hypothesis 1: Women have a lower degree of satisfaction with their bodies than men.

Hypothesis 2: Satisfaction with the body is at its lowest level during youth and at its highest level in middle age.

Hypothesis 3: As people age, their “degree of awareness about physical appearance” decreases, while their “degree of awareness about health and functioning” increases.

Hypothesis 4: Body image perspectives shift from an emphasis on physical appearance to health and functioning as aging advances, and this is especially so with the elderly.

Method

Participants. This study was conducted from May through August 2005 with participants, ages 18 to 84 years old, who resided in the capital city and surrounding area. At the outset, we explained to all participants the purpose of the survey, and obtained informed consent. Completion of the survey form was entirely voluntary. Each participant was assigned a study code; the provision of identification data such as names and addresses was optional. Questionnaire forms and identification data were maintained separately. The method used was anonymous self-reporting questionnaire forms. Some completed the questionnaires during seminar and instruction time. Some participants were given the questionnaires and asked to submit them at the next planned event. The participants included students at a college for elderly people, students taking public courses, culture center students, undergraduate and graduate university students, nursing school students, university faculty, school teachers in the capital city, and general hospital employees in Y Prefecture.

Questionnaire

Demographics. We asked participants for their current age, gender, and self-reported weight and height (which were used to calculate their BMI).

Subjective health status. Subjective health status was measured by using four-point scales from “very healthy” to “unhealthy”.

Degree of body satisfaction. We selected the early but still widely used Body-Cathexis Scale (Jourard & Secord, 1955) to gauge the degree of body satisfaction among the participants. This scale measures the degree of satisfaction for a broad range of body parts and physical functions. It is a one-dimensional scale in which the numerical total expresses the degree of body satisfaction. In this research, physical functions were excluded since we used a different method of measurement of physical functions. There are 21 items in the Body-Cathexis scale: 1-body, 2-hair, 3-face, 4-eyes, 5-nose, 6-ears, 7-mouth, 8-teeth, 9-neck, 10-shoulders, 11-arms, 12-chest, 13-abdomen, 14-buttocks, 15-legs and hips, 16-skin, 17-body shape, 18-posture, 19-looks, 20-height, and 21-weight. We asked the participants to self-evaluate each of these aspects of their bodies and rate them on a six-point Likert scale from (1) extremely dissatisfied to (6) extremely satisfied. Higher total points indicate
greater satisfaction with the participant’s body.

**Degree of body awareness.** In order to measure the degree of awareness about body appearance and health and bodily functioning, we used six items developed from the BSRQ (Body Self-Relations Questionnaire; Brown, Cash & Mikulka 1990). We asked the participants to evaluate statements like, “I tend to be concerned about my physical appearance” and “I tend to be concerned about my health conditions,” giving responses on a five-point Likert scale from (1) definitely agree to (5) definitely disagree (Table 2). In order to confirm that these items appropriately measured participants’ concern about their “appearance” and their “health and functioning,” we conducted a factor analysis inputting the six items (using the maximum-likelihood method, with a promax rotation).

**Body image.** The participants were asked questions using a semantic differential method relating to 19 of the 21 items regarding degree of body satisfaction (height and weight items were eliminated due to inappropriate question content for health and functioning) in order to gauge the degree of positive or negative images held by each individual about their “physical appearance” and their “health and functioning.” We asked participates to select “strongly agree,” “agree,” “agree somewhat,” or “none” in seven stages that used word “opposites” corresponding to the six items (appearance, attractiveness, impression, health, functioning, and vitality) that measure degrees of body awareness (Table 3). We then calculated the total points for the six responses obtained for each of the 19 items as a measure of the degree of body satisfaction. In order to confirm that the six responses appropriately measured the concepts of “physical appearance” and “health and functioning,” we conducted a cluster analysis (Word method) inputting each of the totals.

**Analysis method.** We conducted a two (gender) by four (age group) two-factor analysis of variance using “total points of degree of body satisfaction” as the dependent variable in order to verify Hypotheses 1 and 2, with “degree of awareness of appearance” and “degree of awareness of health and functioning” as dependent variables in order to verify Hypothesis 3, and with “appearance image” and “health and functioning image” as

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### Table 1  Means, standard deviations, and number of participants by age, BMI, and subjective health status, divided by gender and age group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Gender</th>
<th>Age $M$</th>
<th>$SD$</th>
<th>$N$</th>
<th>BMI $M$</th>
<th>$SD$</th>
<th>$N$</th>
<th>Subjective Health Status $M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>60.0</td>
<td>20.4</td>
<td>228</td>
<td>22.6</td>
<td>2.7</td>
<td>229</td>
<td>3.0</td>
<td>0.6</td>
<td>228</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>32.0</td>
<td>20.3</td>
<td>470</td>
<td>20.7</td>
<td>2.5</td>
<td>468</td>
<td>3.0</td>
<td>0.6</td>
<td>462</td>
</tr>
<tr>
<td>Youth</td>
<td>Men</td>
<td>20.0</td>
<td>1.4</td>
<td>47</td>
<td>21.2</td>
<td>2.1</td>
<td>47</td>
<td>3.0</td>
<td>0.7</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>19.0</td>
<td>1.2</td>
<td>213</td>
<td>20.0</td>
<td>2.0</td>
<td>205</td>
<td>3.0</td>
<td>0.5</td>
<td>75</td>
</tr>
<tr>
<td>Early Adulthood</td>
<td>Men</td>
<td>36.0</td>
<td>5.6</td>
<td>47</td>
<td>22.3</td>
<td>2.5</td>
<td>47</td>
<td>3.0</td>
<td>0.6</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>35.5</td>
<td>5.6</td>
<td>76</td>
<td>20.9</td>
<td>2.6</td>
<td>76</td>
<td>3.0</td>
<td>0.5</td>
<td>75</td>
</tr>
<tr>
<td>Late Adulthood</td>
<td>Men</td>
<td>62.0</td>
<td>6.2</td>
<td>55</td>
<td>23.3</td>
<td>2.8</td>
<td>55</td>
<td>3.0</td>
<td>0.5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>59.0</td>
<td>5.5</td>
<td>108</td>
<td>22.0</td>
<td>2.6</td>
<td>108</td>
<td>3.0</td>
<td>0.5</td>
<td>107</td>
</tr>
<tr>
<td>Elderly</td>
<td>Men</td>
<td>69.0</td>
<td>4.0</td>
<td>79</td>
<td>23.0</td>
<td>2.7</td>
<td>79</td>
<td>3.0</td>
<td>0.4</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>68.0</td>
<td>3.5</td>
<td>73</td>
<td>22.0</td>
<td>2.4</td>
<td>73</td>
<td>3.0</td>
<td>0.5</td>
<td>72</td>
</tr>
</tbody>
</table>
Table 2  Body image index words and their opposites

<table>
<thead>
<tr>
<th>Appearance Image</th>
<th>Index Word</th>
<th>Word Opposites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Good Looking – Not Good Looking</td>
<td></td>
</tr>
<tr>
<td>Attractiveness</td>
<td>Attractive – Unattractive</td>
<td></td>
</tr>
<tr>
<td>Impression</td>
<td>Good Impression – Bad Impression</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>Healthy – Unhealthy</td>
<td></td>
</tr>
</tbody>
</table>

Health and Functioning Image

<table>
<thead>
<tr>
<th>Functioning</th>
<th>Good Functioning – Poor Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Robust – Fatigued</td>
</tr>
</tbody>
</table>

dependent variables and gender and age as independent variables in order to verify Hypothesis 4. SPSS11.0J was used in the analysis.

Results

Participants. Survey forms were distributed to 959 participants; 710 were returned (74.0%). Of these, the 698 surveys that did not have omissions were divided into four age groups: youth (age 24 and younger), early adulthood (25 to 44 years), later adulthood (45 to 64 years) and the elderly (over age 65). The data were then analyzed (Table 1).

Degree of body satisfaction. Internal consistency was high (alpha = .92). We quantified the answers in a one to six point range and calculated the total points. We tabulated the degree of body satisfaction among participants into a range of 21 to 126 points. The boundary line (middle of this range) between positive or negative “degree of body satisfaction” was 73.5 points (Figure 2).

Degree of body awareness. We extracted two factors (Table 3). We set the total points for physical appearance, attractiveness, and impression as the “degree of awareness of appearance” (alpha = .71) and the total points for health, functioning, and vitality as the “degree of awareness of health and functioning” (alpha = .78). An increase in the total points within the range of 3-15 points indicates an increasingly higher degree of awareness of the respective aspects.

Body image. The results are illustrated in Figure 1. Since distance existed between “appearance, attractiveness, and impression” and “health, functioning, and vitality,” we set the total points for “appearance, attractiveness, and impression” as the “appearance image” (Table 4, alpha = .98) and the total points for “health, functioning, and vitality” as the “health and functioning image” (Table 4, alpha = .98). A higher total of points in the overall range obtained (57 to 399 points) indicates a more positive image of an individual’s body. The boundary line (middle of this range) between positive or negative “body image” was 228 points (Figure 4).

Hypothesis 1
A main effect for gender was found \(F (1,685) = 15.685, p < .001\). A main effect for age and an interaction with age were not significant \(F (3,685) = 0.103, p > .10\). Men \((M = 78.00, SD = 15.00)\) indicated a higher degree of body satisfaction than women \((M = 71.00, SD = 15.05)\) (Figure 2).

Hypothesis 2
A main effect for age was found \(F (3,685) = 6.363, p < .001\). An interaction with gender was not indicated
Table 3  Factor analysis for degree of body awareness statements

<table>
<thead>
<tr>
<th>Survey Statements</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: I tend to be concerned about my health.</td>
<td>.874</td>
<td>−.074</td>
</tr>
<tr>
<td>Functioning: I tend to be concerned about my physical functioning.</td>
<td>.720</td>
<td>.087</td>
</tr>
<tr>
<td>Energy: I tend to be concerned about my level of physical energy.</td>
<td>.595</td>
<td>.040</td>
</tr>
<tr>
<td>Appearance: I tend to be concerned about my physical appearance.</td>
<td>.033</td>
<td>.789</td>
</tr>
<tr>
<td>Attractiveness: I tend to be concerned about being attractive to the opposite sex.</td>
<td>−.068</td>
<td>.760</td>
</tr>
<tr>
<td>Impression: I am careful not to make a bad impression.</td>
<td>.195</td>
<td>.399</td>
</tr>
</tbody>
</table>

Note: A maximum likelihood solution method with promax rotation was employed.

\[F(3,685) = 0.103, p > .05\]. Using Tukey’s multiple comparison method, the youth group was significantly different from the early adulthood, late adulthood, and elderly groups. The youth group indicated a lower degree of body satisfaction than the other age groups (Figure 2). The cutoff for dissatisfaction in the degree of body satisfaction measures was a point total of 73.5. The average for men and women youth, and women in early adulthood, and the elderly was lower than 73.5; young women, in particular, indicated an especially low degree of body satisfaction.

Hypothesis 3

1) Degree of awareness of appearance. A main effect for gender was not observed, although there was a tendency toward gender differences \[F(1,695) = 2.759, p < .10\]. Women \((M = 12.00\) points, \(SD = 2.22\)) indicated a higher degree of awareness of appearance than men did \((M = 11.00\) points, \(SD = 2.09\)). A main effect for age was highly significant \([F(3,695) = 10.232, p < .001]\); the interaction was not significant \([F(3,695) = 1.321, p > .10]\). Using Tukey’s multiple comparison method, the youth group indicated a higher “degree of awareness of appearance” than the other age groups (Figure 3).

![Index of Similarity](image)

Figure 1  Results of body image cluster analysis
2) **Degree of awareness of health and functioning.** A main effect for gender was not observed, although there was a tendency toward gender differences \( [F(1,691) = 2.968, p < .10] \). Women \((M = 12.00 \text{ points}, SD = 2.43)\) showed a tendency toward a higher “degree of awareness of health and functioning” than men did \((M = 12.00 \text{ points}, SD = 1.94)\). A main effect for age was demonstrated \( [F(3,691) = 2.954, p < .05] \). An interaction was not found \( [F(3,691) = 0.751, p > .10] \). Tukey’s multiple comparison method indicated that the elderly group showed a higher “degree of awareness of health and functioning” than the late adulthood age group (Figure 3).

![Figure 2: Degree of body satisfaction](image)

- **Figure 2:** Degree of body satisfaction

![Figure 3: Degree of awareness of “physical appearance” and “health / functioning”](image)

- **Figure 3:** Degree of awareness of “physical appearance” and “health / functioning”
Hypothesis 4
1) Appearance image. A main effect for gender was not observed, although there was a tendency toward age differences \( [F(3.672) = 3.030, p < .05] \). The interaction was not significant \( [F(3.672) = 0.267, p > .10] \). Tukey’s multiple comparison method indicated that the youth group had a more negative “appearance image” than the late adulthood and the elderly groups (Figure 4). The boundary line between positive or negative “appearance image” was set at 228 points. Both men and women, other than the youth group, indicated on average a positive “appearance image.”

2) Health and functioning image. A main effect for gender was not observed, although there was a tendency toward gender differences \( [F(1.665) = 3.262, p < .10] \). An interaction was not indicated \( [F(3.665) = 1.501, p > .10] \). Women \( (M = 244.50 \text{ points}, SD = 49.58) \) showed a tendency toward a more positive “health and functioning image” than men did \( (M = 239.50 \text{ points}, SD = 51.44) \). A main effect for age was not observed \( [F(3.665) = 0.376, p > .10] \). Women had a negative “health and functioning image” that increased with advanced age, while the opposite tendency was observed in men, and this trend reversed with the elderly age group (Figure 4). Coincident with the result of subjective health status (Table 1), the boundary line between positive and negative health and functioning was 228 points, and a positive “health and functioning image” was indicated in all age groups.

Figure 4 Appearance image and health / functioning image

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(3 points for appearance image and health / functioning image)

\( \star \) (Appearance)

\( \star \) (Appearance)

Men

Women

Men (health/ functioning)

Women (health/ functioning)

† (Health / Functioning)

† \( p < .10 \),  \( \star \) \( p < .05 \)

Boundary line between positive and negative (228point)
Discussion

Hypothesis 1 posits that women have a lower degree of body satisfaction than men, and the results show a gender difference of about the same degree in all age groups. We conjecture that the standard for women’s physical attractiveness is set higher than for men. According to Adams and Laurikietis (1980), women are actually ashamed of growing older before they are actually old, and growing older for most women purely and simply means becoming less attractive. Adams and Laurikietis also state that these declining changes are readily developed socially as degenerative changes. We conjecture that linking physical aging to negative social implications makes it much more difficult to realize the ideal body.

Hypothesis 2 was also supported by the results of our study. As Fujise (2003) speculates, it is possible that young Japanese women internalize the desire for a thin body to the same degree or even more so than women in Western countries do. Youth is a time when, for women, physical attractiveness plays its greatest role and physical appearance has its strongest effect on the self-concept (Lerner, Orlos & Knapp, 1976). Therefore, young women have stronger feelings of anxiety regarding their own bodies. They feel compelled to constantly strive to pursue the idealized body image. Furthermore, the image of the thin body, emphasized by the media as the beauty ideal, makes young women feel that they must comply with standards that are very difficult to attain. This expectation is a factor that induces a further decline in self-evaluation of the body (Henderson-King & Henderson-King, 1997; Itzin, 1986; Wolf, 1991).

Biological and evolutionary perspectives can provide different explanations about the physical attractiveness issue of youth. During puberty, estrogen in females stimulates fat deposition on legs, hips, and buttocks, and inhibits deposition around the abdomen. The waist-to-hip ratio (WHR) increases with the widening of the female pelvis. Singh (1993) finds that the normal WHR (0.8-0.80) is at reduced risk for primary infertility and various health problems. He also indicates that men judge women with a low WHR as attractive. This proposition explains how the WHR influences female attractiveness and its role in an evolutionary mate selection (Buss, 2005; Singh, 1993, 1994).

Young men also indicated the lowest degree of body satisfaction among men in all age groups. The body satisfaction of men is known to be relatively stable throughout life (Franzoi, 1995). However, the same tendency seen in women is also observed in young men. Rodin (1992) points out that men are also being subjected to greater pressures with respect to their physical appearance. According to Grogan (1999), the body satisfaction of men has gradually become a focus of attention among psychologists and sociologists during the past decade. He states that men are sensing sociocultural pressure to achieve a more defined, muscular build. Our research findings suggest that young men may also be considerably impacted by the sociocultural ideal image of the male body.

The results found in testing Hypothesis 3 generally support the hypothesis. The youth age group indicated a higher value for “degree of awareness of appearance” than the other age groups. In addition, women had a tendency toward a higher “degree of awareness of appearance” than men, especially among the youth. These data correspond with previous research on the topic. For instance, McKinley (1999) and McKinley and Hyde (1996) report that the strong sense of shame that young women experience for their bodies, formed through high level surveillance of their own bodies, is linked to a decline in body esteem and an increase in dieting and eating disorders. Williamson, Stewart, and White (2002) contend that women who indulge in bodily monitoring
believe that the way they appear to others is more important than how they themselves feel. These women suffer from a low level of body satisfaction and eating disorders. There are other effects on mental well-being, such as lower independence and self-acceptance. In our study, the early adulthood and later age groups were found to have a low “degree of awareness of physical appearance.” A survey of women participants of all ages reported that women in their 20s and 30s habitually engaged in self-monitoring, which then strengthened their feelings of anxiety about their physical appearance and intensified eating disorder symptoms; this tendency was minor by middle age and lowest in old age (Tiggemann & Lynch, 2001). The decline in the “degree of awareness of physical appearance” in middle and old age is thought to be a factor that eases feelings of shame with respect to physical deterioration and enhances body satisfaction.

The elderly group indicated a higher “degree of awareness of health and functioning” than did the late adulthood group. Among the elderly, there is a high level of self-monitoring for health and functioning, which may possibly cause some decline in body satisfaction and negatively affect the “health and functioning image.” Differences were not observed between the elderly and the youth and the early adulthood age groups. Most of the people of these generations are employed or are involved in childrearing and are at the busiest time of their lives. Therefore their awareness may be readily directed to physical conditions epitomized by health and bodily functioning.

The results of testing Hypothesis 4 support the hypothesis. The youth age group indicated a more negative “appearance image” than did the late adulthood and elderly groups. However, there were no indications of age differences for the “health and functioning image,” and only a slight tendency for women to have a more positive image than men. These data show that body satisfaction was self-reported as low in the youth age group and conspicuously low among women in particular. Among the youth, the aspect of “physical appearance” plays a central role in developing the body image, and this tends to disappear with advancing age. Among the elderly, there is an increased frequency in the need to respond to the deterioration of health and functioning due to aging. We surmise that, in addition to “physical appearance,” “health and functioning” also emerge as factors that affect body image.

Increased BMI (Table 1) and physical deterioration both emerge with aging. It gradually becomes more difficult in early adulthood and later to maintain the ideal body image. In spite of this, indications of high values for body satisfaction were observed. A number of theories may explain this paradox.

The first possible explanation is that, when people advance into old age, they seem to redefine their own body standards to more suitable standards. For instance, Thompson et al. (1998) assert that women of advanced age more strongly experience difficulties in controlling their bodies through the process of aging. They protect themselves from harm caused by the social framework within which they must accommodate themselves. It is also possible to explain this phenomenon of high values for body satisfaction as people age by adapting the life span theory (Heckhausen & Schutz, 1995; Rothbaum, Weisz & Snyder, 1982). This theory views the sense of control in the various environments in which individuals are active from a developmental perspective using the two concepts of primary and secondary control. Primary control is the concept of controlling things through one’s own capacities or desires. Secondary control is the concept of controlling the way of accepting things that cannot be coped with through one’s own capabilities or desires by focusing on the internal world. For instance positive reappraisal, downward comparison, attribution bias, and goal disengagement are all examples of secondary control (Wrosch, Heckhausen & Lachman, 2000). Physical appearance
surveys show that secondary control exceeds primary control from middle age onward. Primary control gradually diminishes along with advancing age. This mental change reduces older women’s concerns about their own physical appearance, congruent with a heightening of feelings of acceptance about the physical changes caused by aging (Thompson et al., 1998). The test results of Hypotheses 3 and 4 in this study suggest the possibility that secondary control functions as compensation for the loss of the idealized beauty of the body.

Objectification of the body provides another possible explanation of our findings. The young generation has a tendency to comprehend the body as an object, and to perceive it as an object of beauty that is constantly scrutinized by the general public. This has been a key factor leading to developing a negative body image as a response to the pressure of the sociocultural ideal of beauty (Franzoi, 1995; Fredrickson & Roberts, 1997). Perception of “body-as-object” may be at the root of the importance placed on external appearance. This research also indicates that there is a decline in the tendency to interpret the body based on external appearance in early adulthood and older age, suggesting an easing of the concept of body-as-object.

A third possible explanation about why values for body satisfaction increase with age is that there are indications that positive mental health in old age is maintained by comparison with one’s peers who are experiencing greater difficulties (Wilcox, 1997). Tiggemann and Lynch (2001) state that there is a tendency for women to compare their own bodies with those of their peers. Baltes and Baltes (1990) contend that social comparisons provide individuals with an understanding of a mechanism for retaining a positive self-evaluation even as people face the suffering and loss brought on by the aging process. They state that people in old age seek to avoid being harmed by aging-related loss by using strategies to change the standards for success or failure in order to continue maintaining a positive self-evaluation. Social comparisons are an effective means for maintaining positive feelings despite the experiences of losing physical youth or ideal beauty as a result of aging.

Differences among cohorts can be cited as a fourth potential explanation as to why body satisfaction increases with aging. Lamb, Jackson, Cassidy, and Priest (1993) point out that the generalized ideal of a thin body is not necessarily appealing to all age cohorts. Hurd (2000) asserts that women in old age seem to reject the ideal of a thin body. This is a cohort effect resulting from the fact that older women may still continue to embrace a more voluptuous and soft ideal of beauty dating from when they were young. Old-age cohorts are less influenced by more contemporary cultural standards of physical beauty. This can also be interpreted as facilitating them to have better feelings about their own bodies than they did when in youth or in middle age.

The heightening of body satisfaction with aging is thought to be beneficial for mental well-being in both middle and old age (Williamson et al., 2002). In addition, there is a curvilinear correlation with a negative to positive slope between body weight and mortality rate in old age (Shibata, Haga, Koyano & Osada, 1985; Tayback, Kumanyika & Chee, 1990). The easing of concerns surrounding physical appearance while aging advances is thought to inhibit unreasonable dieting and eating restrictions. However, contemporary young cohorts may continue to desire thin bodies until they reach old age and the resulting unreasonable dieting activities may have an ill effect on their health.

These data have their limitations. First, the samples and each age and gender group’s standard deviations are uneven, especially among the youth group (Table 1). Also, this research is limited in that cross-sectional data are unable to distinguish between effects related to maturation and those related to cohort group. Longitudinal studies are needed to understand how individuals’ body experiences change over the life span.
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