Body Image, Self-Esteem, and Clothing of
Men and Women Aged 55 Years and Older

by

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(ABSTRACT)

Although there are many studies regarding body image of younger people, there have been few studies on that of older people. Since today's culture considers the young, thin body image ideal, it is important to investigate body image of older people and the relationships between their body image, self-esteem, and clothing behavior. The purpose of this study was to determine the relationships between 1) body-cathexis and self-esteem, 2) body-cathexis and clothing behavior, 3) self-esteem and clothing behavior, 4) body-cathexis and demographics, and 5) demographics and clothing behavior of selected men and women aged 55 years and older.

Data were obtained from 67 men and 75 women aged 55 years and older who were members of senior centers and local churches located in Atlanta, Georgia. The questionnaire regarding body-cathexis, self-esteem, clothing behavior, and demographics was administered through a mail survey. Body-cathexis consisted of five areas of body parts. A modification of Rosenberg's self-esteem scale was used with a 4-point Likert scale. The clothing behavior variable had
seven dimensions.

Data were analyzed using the Pearson correlation coefficient, Fisher's z, transformation, and multiple regression. Pearson correlation coefficients showed that there were positive relationships between body-cathexis, self-esteem, and clothing behavior of the subjects. Fisher's z, transformation detected similarities and differences between men and women respondents in the correlations of these variables. Generally, the self-esteem and clothing behavior of the women were more related with their body satisfaction than were those of the men. Multiple regression showed that there were relationships between body-cathexis and four demographic variables (income, sex, education, and social participation). Also, there were relationships between 1) clothing attitude and social participation, 2) sex and three clothing behavior dimensions (fashion opinion leadership, satisfaction with ready-to-wear, and shopping interest), and 3) income and clothing expenditure.

The results from this study show that body-cathexis is an important variable in self-esteem and clothing behavior of older people. The close relationships among these variables are consistent with the findings of previous studies regarding younger populations.
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CHAPTER I

INTRODUCTION

Spurred by advances in public health, sanitation, nutrition, and medical care, the number of older people has been increasing significantly. Indeed, over the past two decades, the elderly population has increased twice as fast as the rest of the population (Schewe, 1989). According to the U.S. Bureau of the Census, every fifth American will be at least 65 by the year 2040 (Harrison, 1986). In addition, according to Schewe (1989), today's older people are different from the stereotypes in the past. Economically, they are considerably more wealthy. Many have jobs, and they have half the nation's discretionary income. Physically, they are much more healthy. They are optimistic about their health and want more active lifestyles. In addition, they are better educated. Their interests and activities are varied and broad.

Although today's older people are wealthier, healthier, and better educated than older people in the past, they may encounter many problems resulting from aging. Changed body image can be one of the problems that older people face. According to Gergen (1971), body image is the mental view one has of one's body. Today, since physical attractiveness is highly valued and the media focus on the young and thin
body as an important factor of physical attractiveness (Moriarty & Moriarty, 1988), elderly people may care more about their appearance and body image than did the elderly in the past. According to Feather, Kaiser, and Rucker (1988), changes in the body image can influence the physical and psychological self. As a result of culturally undesirable body changes, elderly people may suffer considerable damage to their body image, particularly if they consider physical attractiveness as a critical component of their self-worth (Bower, 1977).

There are many studies regarding the impact of body-cathexis on self-esteem and clothing behavior; body-cathexis can be defined as an evaluative dimension of body image (LaBat & DeLong, 1992). Several studies showed that there are positive relationships among body-cathexis, self-esteem, and clothing behavior. Studies have also addressed the use of clothing to compensate for dissatisfaction with body image and to enhance self-esteem.

However, there are few studies regarding body image of older people, and conflicting results exist regarding self-esteem and clothing of older people. Research regarding body image of elderly people is important because many elderly people care about their appearance and clothing, but may suffer culturally undesirable body changes. Since many studies regarding the general population have shown a
positive impact of body-cathexis on self-esteem and clothing behavior, it is also important to explore the impact of body-cathexis on self-esteem and clothing behavior of elderly people. The few studies concerning body-cathexis and clothing of elderly people have focused primarily on women (Aldrich, 1974; Hoffman, 1970; Hogge & Baer, 1986). Research on elderly men and on similarities and differences between sexes is needed as well.

Several studies regarding the elderly have reported the diverse characteristics existing among elderly people and have emphasized the impact of demographic variables on attitudes and behaviors of elderly people (Hoffman, 1970; Jackson, 1992; Kimmel, 1974). Since the studies reported diverse demographic characteristics of elderly people and some of the demographic variables such as income, employment, and health are associated with age level, the inclusion of diverse age groups of older people may be appropriate in demographic studies. In addition, men and women aged 55 years and older, encompassing a relatively young elderly population, can be usefully investigated to generate valuable information for marketers since the young elderly segment may be a good consumer target. Several researchers noted that most marketing strategies regarding older people focused on consumers aged 55 years and older who control about three-fourths of the U.S. assets and half
of the disposable income (Lazer, 1986; Moschis, Mathur, & Smith, 1993). Therefore, it is important to investigate body-cathexis of elderly people and assess relationships among body-cathexis, self-esteem, clothing behavior, and demographics of men and women aged 55 years and older.

Research findings regarding the relationships among body-cathexis, self-esteem, clothing, and demographics of elderly people will contribute to the body of knowledge concerning the elderly. Research on body-cathexis of the elderly can inform scholars and practitioners whether body-cathexis is important to the self-esteem and clothing behavior of this population segment. The information generated can be useful to manufacturers and retailers because it can provide the basis for understanding the elderly and support manufacturers' and retailers' marketing strategies for elderly men and women consumers.

The purpose of this study is to determine the relationships between 1) body-cathexis and self-esteem, 2) body-cathexis and clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping behavior, and clothing expenditure), 3) self-esteem and clothing behavior, 4) body-cathexis and demographics (income, marital status, social participation, education, age, and sex), and 5) demographics and clothing behavior of selected men and women aged 55 years and older.
CHAPTER II

LITERATURE REVIEW

The research problem deals with the relationships among body-cathexis, which is the evaluative dimension of body image, and self-esteem and clothing of elderly people. The review of literature provides the definitions of the major concepts relevant to the research. Because there are many studies on the relationships among body image, self-esteem, and clothing-related behavior, empirical findings of such studies are reviewed. The review of literature then focuses on physical changes and body image, self-esteem, and clothing behavior (clothing attitude, fashion opinion leadership, shopping behavior, satisfaction with ready-to-wear, and clothing expenditure) of older people.

Body Image, Self-Esteem, and Clothing

Body image is "a term which refers to the body as a psychological experience and focuses on the individual's feelings and attitudes toward his [sic] own body" (Fisher, 1968, p.x). According to Gergen (1971), body image is the mental view one has of one's own body and is a component of self-concept. Kalish (1975) defined self-concept as the total image one has about oneself; it contains one's actual
experiences and the interpretations about those experiences. Kalish noted that body image and self-esteem are the most important components of the self-concept.

Since attitudes and values are influenced by culture, several researchers have focused on body image in the context of culture. Schneider (1953) suggested that the importance of body image to culture is obvious from the amount of time and effort to modify the body's appearance. Schneider also asserted that people are pursuing the ideal body image by means of clothes, bleaches, cosmetics, tattooing, and plastic surgery. Jourard and Secord (1955) reported that females tended to modify their appearance by using clothes or cosmetics to comply with some idealized body image in their culture.

Some studies have dealt with changes in the body image in relation to cultural ideals. Greenwood (1984) reported that women are more humiliated by body changes than are men although each gender has negative attitudes toward body changes. Lake (1979) noted that the media influence middle-aged women to diet, stay younger-looking through the use of cosmetics, and disguise "figure flaws" through appropriate selection of clothing.

to do with one's sense of worth. It is based on a personal evaluative judgment that one makes about oneself, and is thus a private and very subjective matter" (p.107). Self-esteem can be assessed as high or low, positive or negative (Breytspraak & George, 1982). Ross (1992) examined four categories of self-esteem: competence, worth, power, and acceptance. Competence deals with the self-evaluation of people's skills and achievements, what they do well and what they have accomplished. Worth deals with a person's moral and ethical standards, physical appearance, and personality traits. Power deals with a person's ability to control and influence others. Acceptance is related to how others react to a person, whether they like or respect the person.

Many investigators have reported a positive relationship between the two concepts of self-esteem and body image. To evaluate body image, Secord and Jourard (1953) devised a measure of attitudes toward the body by asking subjects whether they have positive or negative feelings about different body parts. They found that positive attitudes were related to a high level of self-esteem. In Wendel and Lester's (1988) study, self-esteem scores correlated with certain body characteristics such as waist size and weight for college women. Women who were more satisfied with their hips and waists had higher self-esteem scores. For college men, self-esteem scores
correlated with voice and profile. Men who were more satisfied with their voice and profile had higher self-esteem scores. Thomas (1988) also found that a higher level of self-esteem was correlated with more positive body image satisfaction, and that body weight and self-esteem were negatively correlated. According to Warren (1986), however, there was no significant relationship between self-esteem and body image in middle-aged women. Warren concluded that middle-aged women subjects had high levels of self-esteem regardless of their body image because the majority of the subjects had upper-middle socioeconomic status which can result in high levels of self-confidence.

Clothing is an extended dimension of one's bodily self (Shim, Kotsiopulos, & Knoll, 1991), and one's self-feeling toward the body plays an important role in clothing preferences and attitudes (Kaiser, 1990). To investigate the relationship between clothing and body image, researchers have focused on the relationship between body-cathexis and diverse aspects of clothing behavior. According to Shim, Kotsiopulos, and Knoll (1991), clothing attitude, an aspect of clothing behavior, includes beliefs toward clothing, clothing preferences or tastes, and use of clothing for social actions and interactions. Shim et al. (1991) grouped their subjects according to their clothing attitude and body-cathexis scores. The four groups were
characterized by 1) positive body-cathexis/ positive clothing attitude, 2) positive body-cathexis/ negative clothing attitude, 3) negative body-cathexis/ positive clothing attitude, and 4) negative body-cathexis/ negative clothing attitude. Shim et al. found that the relationship between body-cathexis and clothing attitude is not uni-dimensional. Body satisfaction and clothing attitude were positively correlated for only two groups of subjects: a group with positive body-cathexis and positive clothing attitude, and a group with negative body-cathexis and negative clothing attitude.

Another aspect of clothing behavior, satisfaction with ready-to-wear, has been extensively investigated in relation to body-cathexis. LaBat (1988) reported that higher body-cathexis was associated with more satisfaction with the physical fit of ready-to-wear clothing among female consumers. Shim et al. (1991) also found that those who were most satisfied with their bodies and had a favorable attitude toward clothing were likely to be satisfied with ready-to-wear and product variety/store quality, enjoy shopping, be confident in choosing proper clothes for themselves, and be heavy purchasers of clothing. LaBat and DeLong (1990) reported a significant relationship between body-cathexis and satisfaction with fit of apparel, especially in satisfaction with apparel fit on lower parts
of the body.

In addition to the relationship between body-cathexis and clothing, the relationship between clothing and self-esteem has been studied. Humphrey, Klaasen, and Creekmore (1971) found that boys and girls with higher levels of self-esteem cared about their appearance and liked to draw attention to themselves through the use of clothing. Holloman (1989) found that both black men and black women had a positive correlation between self-esteem and clothing attitudes regarding esthetics and practicality.

Body Image, Self-Esteem, and Clothing of Older People

Physical Changes and Body Image. Bower (1977) noted changes in body proportions and added weight that occur during later life as a result of the lowered basal metabolism and the tendency to decrease exercise. Typically, weight increases until 65 years of age, but it decreases after age 80. Neck, arms, and breasts tend to lose fat padding, but the buttocks, thighs, abdomen, and midsection gain increasing percentages of fat. Grey hair, wrinkled and weakened skin, and tooth loss also occur with aging.

Kimmel (1974) asserted that the body changes of elderly people are negatively valued, and that these changes can influence elderly people's self-concept, confidence, and
sense of value. Moreover, less powerful voice, grey hair, or hair loss may influence elderly people's self-image and the labeling of oneself as "old."

Regarding older people's feelings toward their bodies, Kalish (1975) reported elderly individuals' comments about their changed body image such as "When I look into the mirror, I see the face of an older person. It isn't me-- I have the spirit of a young person." Or, "I am a prisoner of my body. It's not really me with arthritis, with sagging breasts and loose skin-- it's someone else" (p.58). According to Aldrich (1974), elderly women subjects indicated negative feelings toward changes in their figures, such as heavier weight, thicker waist, unattractive arms, and lower bust.

Anorexia nervosa is characterized by "a relentless pursuit of thinness with a fear of fatness, disturbance of body image, and a refusal to maintain a minimal body weight" (Price, Giannini, & Colella, 1985, p. 213). Although anorexia nervosa is generally considered a disease related with young women, Jonas, Pope, and Hudson (1984) and Kellett, Trimble, and Thorley (1976) reported cases of the disease in elderly women. Price, Giannini, and Colella (1985) discussed the fear of fatness and distorted body image of a 68-year-old woman in their case study. Miller, Morey, Rubenstein, and Pietruszka (1991) reported distorted
body image and inappropriate eating attitudes in elderly males. The elderly subjects in their study had problems regarding inordinate self-control around food and diverse forms of distorted body image.

There have been research findings on whether older people are concerned about their appearance. Baird (1951) reported that appearance is valued at every age and older women greatly care about their appearance and want to be beautiful. According to Hoffman (1970), older women frequently use beauty shops to enhance their attractiveness, and they are greatly concerned about hair and cosmetics. Kernaleguen (1977) found that older people care about their clothing and want to have a favorable appearance. Plutchik, Weiner, and Conte (1971) concluded that people's concern about their bodies and appearances was not related with age but associated with special life circumstances. For example, people who had psychiatric problems worried about their bodies and appearances regardless of age.

Self-Esteem of Older People. Although several researchers have investigated the self-esteem of elderly people, contradictory findings exist on whether the self-esteem of elderly people decreases with advancing age. Kaplan and Pokorny (1970) investigated the variables affecting self-esteem of elderly people and found that older
people's self-esteem rises with age if the older people have not had recent painful life experiences such as death in the family and job loss, feel they are living at about the same standard of living that they expected earlier, and have no fear of being left alone.

In addition to these individual differences in self-esteem, researchers have examined factors that can affect self-esteem of elderly people in the social and cultural context. According to Chene (1991), self-esteem in elderly people may decrease as a result of lessened social interaction and the depreciated position of old age in society. It is generally taken for granted that American culture is youth-oriented (Weeks, 1984) and that there are many negative attitudes toward "old" age (Furstenberg, 1989). Due to such negative evaluation, feeling older can result in feeling worse. Therefore, there is a tendency for people who consider themselves older to have lower self-esteem and less self-confidence (Furstenberg, 1989). Rodin and Langer (1980) showed that elderly subjects were manipulated by negative expectations regarding aging, and finally the elderly behaved in a manner which was consistent with these negative expectations. Rodin and Langer discussed that negative labeling and stigmatization of the elderly can result in decreased self-esteem.

**Clothing of Older People.** Several researchers have
shown the importance of clothing to elderly people. Newton (1984) found that clothing was particularly important in social situations outside the home. According to Hoffman (1970), clothing plays an important role for older women because clothing is useful in developing new social relationships and in maintaining a positive self-image. In investigating the relationship between appearance and clothing, Bader (1963) reported that self-worth and self-respect were important to older adults and clothing plays an important role in enhancing appearance of older people. Baum and Boxley (1983) also addressed that clothing can help elderly people who prefer to conceal the undesirable "figure flaws" of aging and to look younger.

When it comes to fashion interest among elderly people, Horn and Gurel (1981) emphasized that elderly people are not only interested in comfortable aspects of clothing but are also concerned about their overall appearance and fashion. Kernaleugen (1978) reported that elderly people want to conform to current fashions for fear that they are perceived as different from others. Chowdhary (1988) found that the elderly subjects preferred fashionable styles to classic styles. In their study of fashion opinion leadership of older people, Huddleston, Ford, and Bickle (1993) showed that fashion opinion leaders exist among older people. Huddleston et al. also reported that the role of shopper as
a lifestyle characteristic is a significant predictor of fashion opinion leadership.

Although older consumers are interested in fashion and spend more money on higher-priced garments than younger counterparts (Martin, 1976), the elderly have been a neglected segment of the population in shopping research and have received limited attention from most marketers. According to Lumpkin and Greenberg (1982), many older people enjoy shopping as pleasure and recreation. This finding was related to that of Martin (1970) which showed little difference between younger and older women subjects in regard to shopping enjoyment. Concerning patronage behavior of older people, Lumpkin and Greenberg (1982) reported that older people preferred traditional department stores and specialty stores to discount stores. However, Chowdhary (1988) showed that older people did not distinguish between discount and specialty stores although the older people most preferred department stores as their shopping place.

As aging is accompanied by physical changes, many researchers have examined the problems with ready-to-wear clothing of older people. According to Richards (1981), elderly people have difficulty in finding a good selection of ready-to-wear garments which can accommodate their changing body shape. Kernaleguen (1978) reported on older people's problems with sizes in ready-to-wear clothing.
Older people complained that the size of ready-to-wear clothing relied on the measurements of younger people, and that figure changes of elderly people were not taken into consideration and were neglected. In addition, Shim and Bickle (1993) showed that older people's satisfaction with apparel fit was notably low, especially in relation to garment length. Older people had problems with blouse/sweater length, leg length of pants, skirt/dress length, and jacket length.

In addition to general ready-to-wear problems, sex differences in satisfaction with clothing exist. Richards (1981) noted that elderly men have less difficulty with fit than do elderly women because they wear separate shirts and trousers. Hogge, Baer, and Kang-Park (1988) reported that elderly men's major fitting problem with shirts and jackets was sleeve length. According to Hogge and Baer (1986), elderly women frequently complained about inaccurate fit of garments especially the excessive length in the shoulder, sleeve, and bodice. Smathers and Horridge (1979) reported that elderly women faced fit problems in regard to tightness in the hips, bust, waist, and stomach.

As the number of older people has been increasing dramatically, many researchers have given attention to diverse aspects of expenditure patterns of older consumers. Several researchers investigated apparel expenditures, one
of the major expenditure categories, to find its relationship with aging. Norum (1989) used the Consumer Expenditure Survey (CES), collected by the Bureau of Labor Statistics, to analyze the relationship between age of household head and apparel expenditures among all age groups. In Norum's (1989) study, the independent variables were income, age, marital status, social class, location, and race while the dependent variable was household apparel expenditure. Norum found that apparel expenditures decreased with advancing age of household head.

Using the CES, Reinecke (1976) found that, when income was controlled, expenditures for transportation, home furnishings, and apparel decreased with increased age in the longitudinal study of individuals older than 55 years. Reinecke also reported that apparel expenditures decreased with aging more for men than for women. For women, apparel expenditures were stable through the age categories 55 to 74 years, but the expenditures declined after age 75. According to Hildreth and Kelley (1984-85), the apparel expenditures among older people decreased significantly after retirement. Also, older people indicated that their priorities for apparel expenditures had changed after retirement.

Some studies showed a positive relationship between apparel expenditure and income among older people. Millican
(1967) found that apparel expenditures increased as income increased. Jackson's (1992) results supported this finding although Winakor (1993) argued that Jackson should have analyzed the data without grouping and should have controlled for various demographic variables to determine a clearer relationship between income and clothing expenditure. By using data grouped by level of income and apparel expenditures, Jackson (1992) concluded that apparel expenditures of the elderly increased as income rose. The level of apparel expenditure was significantly related to income class. However, as Winakor (1993) pointed out, the relationship between apparel expenditures and income is not definitive since Jackson didn't control diverse demographic variables such as sex, education, and employment which can affect apparel expenditures of older people.

Summary

Although there are many studies regarding body image, self-esteem, and clothing, there are few studies regarding body image, self-esteem, and clothing of elderly people. Research on the general population has indicated positive relationships among body image, self-esteem, and clothing behavior. Also, these studies showed that clothing can compensate for dissatisfaction with body image and can
enhance self-esteem.

Since U.S. society considers the young, thin body ideal and has negative attitudes toward elderly people, some studies deal with elderly people's concern about their body image, their self-esteem, and their clothing behavior. However, compared to the findings for the general population, contradictory findings exist in regard to body image, self-esteem, and clothing behavior of elderly people. Also, the implications of many clothing studies for elderly people are limited because they are not contemporary studies. Although there are several studies dealing with these three concepts separately, almost no investigators have addressed the relationships among body image, self-esteem, and clothing of elderly people. Moreover, there have been relatively few studies regarding body image and clothing behavior of elderly men compared to elderly women. Therefore, the proposed research can make an important contribution to the literature.
CHAPTER III

STATEMENT OF PROBLEM

Conceptual Framework

Self-concept is the total image one has about oneself; it contains one's actual experiences and interpretations about those experiences (Kalish, 1975). Since self-concept is related to the totality of self or global self, many theorists have tried to discriminate the multi-dimensions of the global self. One of the theorists, James (1890), distinguished two aspects of the global self: "the self as a knower or I" and "the self as known or me." "The self as a knower or I" is related to the process of actual experiencing while "the self as known or me" is concerned with the interpretation of that experiencing. According to Burns (1979), "the self as a knower" includes self image, whereas "the self as known" is composed of "other self" as one believes others perceive him and "ideal self" as one would like to be.

According to Kalish (1975), body image and self-esteem are the most important components of the self-concept. Body image is the mental view one has of one's own body (Gergen, 1971). Burns (1979) noted that body image is explained in the context of "the self as a knower." Fisher and Cleveland

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(1958) pointed out that body image is one of the major components of "self as a knower." Because awareness of the self begins with experiencing one's body, body image can be considered as one of the earliest parts and the basis of self-concept (Burns, 1979; Liskey, 1989). Because body image plays such an important role in one's self, some researchers identified body-cathexis, the indication of individuals' satisfaction or dissatisfaction with their different body parts, to evaluate body image.

Self-esteem, the evaluation of one's self, is related to "the self as known." As "the self as known" is composed of "other self" and "ideal self," self-esteem is the process to examine one's performance and abilities based on one's personal standards and values, which have been influenced by society and significant others (Burns, 1979).

Although body image and self-esteem are different aspects of self-concept, there seems a close relationship between the two concepts since the individual's perceptions and standards are influenced by social standards and values. Also, body image and self-esteem may be interrelated because both "the self as a knower" and "the self as known" interact and influence each other. Given that physical attractiveness is culturally valued and appearance has significant impact on social interactions (Burns, 1979), it is not surprising that many researchers have found a
positive relationship between body-cathexis and self-esteem.

In this context, the importance of clothing to body-cathexis and self-esteem cannot be underestimated. Since clothing is an extended dimension of one's bodily self (Shim, Kotsiopulos, & Knoll, 1991) and one's self-feeling toward the body plays an important role in clothing preferences and attitudes (Kaiser, 1990), clothing can enhance one's bodily self and increase one's social gains in the interaction with others (Burns, 1979). Therefore, clothing can compensate for one's dissatisfaction with body image and enhance self-esteem. According to several researchers (LaBat, 1988; LaBat & Delong, 1990; Sontag & Schalter, 1982), there is a positive relationship between body-cathexis and clothing behavior. Moreover, Humphrey et al. (1971) and Holloman (1989) found a positive correlation between self-esteem and clothing attitude, a dimension of clothing behavior.

In addition to the critical components of self-concept, body image and self-esteem, there are some studies regarding the development of self-concept. Burns (1979) noted that the process of self-concept development continues from one's birth to death. One's self-concept becomes developed and accumulated by a process of interaction with other people or objects in the society. There are major sources of self conception although the importance of these sources is
relatively different in different periods of the life span. These sources are body image, linguistic skill, and interaction and feedback from significant others (Burns, 1979).

As people age, the contents of their self-concept also expand. Increased age is accompanied by greater emphasis on personal attributes, basic philosophy, and attitudes toward self and others (Burns, 1979). After age 50, people tend to focus on personally achieved positions and characteristics, as well as on personal values instead of family relations and demographic characteristics (Back, 1971; Burns, 1979). However, various life experiences such as retirement and child separation can affect the self-concept of older people although the aging process makes older people emphasize their own abilities and feelings (Burns, 1979).

Because older people are more varied than younger people in terms of their diverse social status and demographic characteristics (Kimmel, 1974; Munnichs, Musen, Olbrich, & Coleman, 1985), there are conflicting results regarding the relationship between self-concept and aging (Dodge, 1961; Hess & Bradshaw, 1970; Nehrke, 1974). To solve these conflicting results, Erikson (1963, 1982) suggested that the self-concept of elderly people is closely related with how elderly people solve their ego integrity crisis. If elderly people successfully solve their crisis
and accomplish high ego integrity, they can have a positive self-concept.

In a study on aging and self-concept of a national sample aged 18 years and older, Gove, Ortega, and Style (1989) showed that as people aged, when their socioeconomic variables were controlled, their self-concept came to include more positive attributes and fewer negative attributes, and became more integrated. As a result of their psychological maturation and integration, older people achieved higher self-concept than younger people.

Conceptual Definitions

1. Elderly: from a chronological point of view, defined as people who have passed age 54 years.
2. Body image: is the mental view one has of one's own body and is a component of self-concept (Gergen, 1979).
3. Body-cathexis: defined as the "degree of satisfaction or dissatisfaction with the various parts or processes of the body" (Secord & Jourard, 1953, p.343). LaBat and Delong (1990) considered body-cathexis as an integral part and the evaluative dimension of body image.
4. Self-esteem: refers to the way one evaluates one's self (Laurer & Handel, 1977). Self-esteem can be assessed as
high or low, positive or negative (Breytspraak & George, 1982).

5. Self-concept: defined as the total image one has about oneself; it contains one's actual experiences and interpretations about those experiences (Kalish, 1975).

6. Clothing behavior: refers to "selected aspects of individual dispositions, namely, perceptions and cognitions, motivations and attitudes with respect to the use of clothing as a part of one's personal and social environment" (Williams, 1975, p.132-133). It includes clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping behavior, and clothing expenditure.

7. Clothing attitude: degree to which one considers clothing important (cognitive dimension), likes clothing (affective dimension), and uses clothing as a means of social interaction (behavioral dimension) (Shim, Kotsiopulos, & Knoll, 1991).

8. Fashion opinion leadership: degree to which one influences decisions of other people to adopt fashion (Hirschman & Adcock, 1978).

9. Satisfaction with ready-to-wear: degree to which one is satisfied with fit and styles of ready-to-wear clothing (Perry, 1985).

10. Shopping behavior: includes shopping interest, satisfaction with shopping, and store patronage.

12. Satisfaction with shopping: degree to which one is satisfied with searching processes for ready-to-wear clothing.

13. Store patronage: degree to which one buys or likes to buy clothes in a particular store (Shim & Kotsiopulos, 1991).

14. Clothing expenditure: amount of spending on personal apparel during a given time (Jackson, 1992).

Research Problem

The purpose of this study was to determine the relationships between 1) body-cathexis and self-esteem, 2) body-cathexis and clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping behavior, and clothing expenditure), 3) self-esteem and clothing behavior, 4) body-cathexis and demographics (income, marital status, social participation, education, age, and sex), and 5) demographics and clothing behavior of selected men and women aged 55 years and older.
Objectives

1. To measure for a sample of men and women aged 55 years and older, the following variables:
   a. body-cathexis
   b. self-esteem
   c. clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping behavior, and clothing expenditure)
   d. demographics (income, marital status, social participation, education, age, and sex)

2. To determine the relationships between the following variables for a sample of men and women aged 55 years and older:
   a. body-cathexis and self-esteem
   b. body-cathexis and clothing behavior
   c. self-esteem and clothing behavior
   d. body-cathexis and demographics
   e. demographics and clothing behavior

Research Hypotheses and Rationale for the Hypotheses

H1. There is a positive relationship between body-cathexis and self-esteem of the elderly men and women
subjects. Elderly men and women subjects who have higher satisfaction with their body parts have higher self-esteem.

According to several researchers, there is a positive relationship between body-cathexis and self-esteem. Also, since some studies showed that elderly people care about their appearance and that today’s culture values the young, thin body, elderly people's body-cathexis can affect their self-esteem.

H2. There is a positive relationship between body-cathexis and clothing behavior of the elderly men and women subjects. Subjects who have higher satisfaction with their body parts have a more favorable attitude toward clothing, have a higher degree of fashion opinion leadership, have higher satisfaction with ready-to-wear clothing, have higher satisfaction with shopping, have a higher degree of shopping interest, have a higher degree of store patronage, and have higher expenditures on clothing.

Many studies showed a positive relationship between body-cathexis and dimensions of clothing behavior. Clothing is an extended dimension of one's bodily self, thus the elderly's body image can play an important role in clothing attitude and clothing preferences. Also, some studies showed that elderly people did not much differ in clothing-
related behavior compared to the non-elderly. Therefore, there can be a positive relationship between body-cathexis and clothing-related behavior of elderly people.

H3. There is a positive relationship between self-esteem and clothing behavior of the elderly men and women subjects.
-- Subjects who have higher self-esteem have a more favorable attitude toward clothing, have a higher degree of fashion opinion leadership, have higher satisfaction with ready-to-wear clothing, have higher satisfaction with shopping, have a higher degree of shopping interest, have a higher degree of store patronage, and have higher expenditures on clothing.

According to several studies, there is a positive relationship between self-esteem and dimensions of clothing-related behavior. Also, some studies showed that clothing played an important role in enhancing elderly people's self-esteem.

H4. There is a relationship between body-cathexis and demographics of the elderly subjects. -- Body satisfaction of the elderly subjects will be influenced by subjects' age, income, education, marital status, sex, and social participation.
According to several studies (Armstrong & Tan, 1978; Hamilton & Chowdhary, 1989; Schwartz, 1982), body-cathexis is affected by demographic variables such as social/group affiliation and cultural world view. Hamilton and Chowdhary (1989) discussed the impact of education and occupational characteristics on body-cathexis of women. Also, many studies for the general population have shown gender differences regarding body-cathexis. Therefore, demographic differences on body-cathexis of elderly people are expected.

H5. There is a relationship between clothing behavior and demographics of the elderly subjects. -- Clothing behavior of the elderly subjects will be influenced by subjects' age, income, education, marital status, sex, and social participation.

Many studies suggested that elderly people are not homogeneous, but rather a heterogeneous group who have diverse characteristics regarding their demographics, and some studies addressed the impact of demographic variables on attitudes and behaviors of the elderly. For example, Tigert, Ring, and King (1975) reported that males were less interested in fashion than were females, and Jackson (1992) showed that apparel expenditures were significantly related to income among elderly people.
Limitations

1. Since the sample is not randomly selected, the interpretation of the findings cannot be generalized to the whole elderly population.
2. Results are influenced by the subjects' ability and willingness to respond to the questionnaire.
3. Limitations due to the nature of the rating scale should be considered. Subjects may think that intervals of the rating scale are not equal for them although the rating scale is assumed to have equal intervals. Also, the rating scale has a lack of objectivity since there is no objective standard for subjects' ratings.

Assumptions

1. The subjects will understand and respond to the questionnaire correctly and honestly.
2. Major constructs such as body-cathexis, self-esteem, and clothing behavior are validly measured.
CHAPTER IV

PROCEDURE

The purpose of this study was to determine the relationships among body-cathexis, self-esteem, clothing behavior, and demographics of a sample of men and women 55 years and older. Subjects were members of senior centers and local churches located in Atlanta, Georgia. A questionnaire regarding body-cathexis, self-esteem, clothing behavior, and demographics was developed and pilot tested with fifteen older people, and the results of the pilot test were used in revising the instrument. The relationships among the variables were analyzed by statistical tests including multiple regression and Pearson correlation coefficient.

Sample

Subjects were men and women aged 55 years and older from senior centers and local churches in Atlanta, Georgia. The researcher initially contacted a 68-year-old woman who was a resident of Atlanta, Georgia. Through her and her friends' contacts with members of senior centers and local churches, the researcher obtained 302 mailing addresses of older men and women. A copy of the questionnaire and a
statement of purpose were used in the regular and social meetings of members to give better understanding of the study. The released mailing addresses were from older people who were interested in this study and who did not refuse to release their mailing addresses.

A copy of the questionnaire and a statement of purpose was submitted to the Human Subjects Review Committee at Virginia Tech and received approval.

The Instrument and the Variables Measured

**Body-cathexis** is defined as the scores of subjects after rating their satisfaction with five areas of body parts on a 4-point Likert scale as follows: satisfied (4), somewhat satisfied (3), somewhat dissatisfied (2), dissatisfied (1). The five areas encompassing 18 body parts are lower body (legs, calves, knees, feet), head/upper body (face, hair, eyes, nose, teeth, voice), height (overall height, leg length), weight (overall weight, waist, hips), and torso (bust, neck, muscular strength) (Section A in Appendix A).

The original body-cathexis scale was developed by Secord and Jourard (1953), and it has 46 items. Many contemporary studies use modified body-cathexis scales with reduced items (Shim et al., 1991). Shim et al. (1991) used
the modified 23-item body-cathexis scale of Mahoney and Finch (1976), and measured body-cathexis by male subjects' indication of their satisfaction with each body area including lower body, head/upper body, height, weight, and torso on a Likert scale, from very positive to very negative.

The five areas of 18 body parts used in this research were adapted from Shim, Kotsiopulos, and Knoll's (1991) study. Since Shim et al. focused on male subjects, some of the items are eliminated or modified. In addition, as a result of the pilot test, the number of items of the body-cathexis scale was reduced and the scale was spread over more space. The total possible score on the 18 body-cathexis items ranges from 72 to 18. The score on the lower body area ranges from 16 to 4. The scores on other areas have the following ranges; head/upper body (from 24 to 6), height (from 8 to 2), weight (from 12 to 3), and torso (from 12 to 3).

Self-esteem is defined as subjects' total scores from rating their agreement with 10 items based on Rosenberg's (1965) self-esteem measure on a 4-point Likert scale that ranged from agree (4) to disagree (1). Two of the ten items of Rosenberg's scale were modified because of the confusion concerning the meanings of the statements, although the other eight items were the same as those of Rosenberg's
scale. The ten items (numbered 1, 5, 9, 15, 20, 27, 32, 36, 39, 42) are in Section B of Appendix A. The total score ranges from 40 to 10. A higher score indicates a higher level of self-esteem. As a result of testing with diverse subjects, Rosenberg's measure was reported to be reliable and valid (Chowdhary, 1988; Sontag & Schalter, 1982). Chowdhary (1988) reported that its Cronbach alpha is .85.

Clothing Behavior includes clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping interest, satisfaction with shopping, store patronage, and clothing expenditures.

Clothing Attitude is defined as scores indicated by subjects' degree of agreement with five items reflecting the tri-component view of clothing attitude, cognitive, affective and behavioral, on a 4-point Likert scale ranging from agree (4) to disagree (1). The total possible score ranges from 20 to 5. Higher scores indicate subjects' more favorable attitude toward clothing. Shim, Kotsiopulos, and Knoll (1991) used five items of clothing attitude in their study, and these five items (numbered 2, 6, 11, 21, 31 in Section B of Appendix A) were used in this study. Cronbach's alpha coefficient for the measure was .87, indicating a high reliability in Shim et al.'s study.

Fashion Opinion Leadership is defined as scores indicated by subjects' degree of agreement with three
fashion opinion leadership items used by Shim and Kotsiopulos (1991) on a 4-point Likert scale that ranged from agree (4) to disagree (1). The three items are "My friends or neighbors regard me as a good source of advice on clothing fashions," "Others often turn to me for advice on fashion and clothing," and "I often influence the types of clothing fashions my friends buy." The total possible score ranges from 12 to 3.

Satisfaction with Ready-to-wear is defined as scores obtained by subjects indicating their degree of agreement with items regarding fit and styles of ready-to-wear on a 4-point Likert scale ranging from agree (4) to disagree (1). Perry (1985) used 14 items of satisfaction with ready-to-wear; with some modifications, these 14 items (4, 7, 10, 14, 16, 17, 19, 22, 23, 25, 28, 33, 37, 40 in Section B of Appendix A) were used in this study. The total possible score ranges from 56 to 14. Higher scores indicate greater satisfaction with ready-to-wear. Perry reported the Cronbach's alpha coefficient for the original measure to be .80.

Shopping Behavior includes shopping interest, satisfaction with shopping, and store patronage.

Shopping Interest is defined as scores obtained by subjects indicating their degree of agreement with two shopping interest items used by Shim, Kotsiopulos, and Knoll
(1991), each item having a 4-point Likert scale ranging from agree (4) to disagree (1). The two items are "In general, I find shopping for clothes enjoyable" and "I enjoy browsing even when I am not out to buy anything."

**Satisfaction with Shopping** is defined as scores obtained by subjects' degree of agreement with seven shopping items used by Perry (1985), each item having a 4-point Likert scale from agree (4) to disagree (1). The modified seven items are 8, 18, 24, 26, 29, 34, 41 in Section B of Appendix A. The total possible score ranges from 28 to 7. Higher scores indicate greater satisfaction with shopping. Perry reported that Cronbach's alpha coefficient for the original measure was .75.

**Store Patronage** is defined as scores obtained by subjects indicating their degree of agreement with two store patronage items used by Shim, Kotsiopulos, and Knoll (1991), each item having a 4-point Likert scale from agree (4) to disagree (1). The two items are "I buy my clothes at a particular store as a matter of preference" and "I like to buy most of my clothes in a particular store." The total possible score ranges from 8 to 2.

**Clothing Expenditure** is defined as the total dollar value of annual personal expenditures on personal apparel, including accessories, such as shoes, and clothing services (Norum, 1989). Subjects were asked to choose one of the
following categories as their clothing expenditure: under $199, $200 to $399, $400 to $599, $600 to $799, $800 to $999, $1,000 and above. As a result of the pilot test, a forced-choice question was needed because some respondents had problems responding to an open-ended question.

Demographics include income, marital status, social participation, education, age, and sex. The related questions are in Section C of Appendix A.

Income is measured as total dollar amount received by a household in the year, in one of the following categories: under $9,999, $10,000 to $19,999, $20,000 to $29,999, $30,000 to $39,999, and $40,000 and above. Subjects were asked to choose the income category corresponding to their income.

Marital Status. Subjects were asked to choose between "currently married" and "not-married at this time" as their marital status.

Social Participation. Subjects were asked three questions: "Are you a volunteer worker?" "Are you employed?" "Are you retired?" Based on their answers, social participation status was scored from 4 to 1. A score of one reflects the subjects who were retired and neither volunteer worker nor employed. A score of one was added if a subject had one of the following social participation status categories: volunteer worker, employed, or not-retired.
Therefore, if subjects were employed, volunteer worker, and not-retired, they obtained a score of four as their social participation status.

**Education.** Subjects were asked to choose one of the following categories as their highest education: grade school or less, some high school or high school graduate, beyond high school.

**Age.** Subjects were asked to write down their age in years in an open-ended question.

**Sex.** Subjects were asked to choose between male and female as their sex.

**Pilot Test.** The questionnaire described above and contained in Appendix A is a modification of the initial questionnaire administered in a pilot test. The initial, pilot-tested questionnaire regarding body-cathexis, self-esteem, clothing behavior, and demographics is in Appendix B. Fifteen men and women aged 60 years and older who participated in the Family Motor Coach Association meeting at Virginia Tech responded to the questionnaire in early August, 1993. It took about half an hour for them to complete the questionnaire.

Results indicated that the number of items in the body-cathexis scale needed to be reduced and that more space was needed since several respondents marked multiple answers for
the same items of the scale. An open-ended question used for clothing expenditure needed to be changed to a forced-choice question since some respondents indicated that they didn't know the exact amount of clothing expenditure or that they hardly could keep track. Moreover, an open-ended question regarding age was considered more appropriate because one male respondent said he wouldn't respond to the questionnaire if it was specifically for the elderly. After the pilot test, each question was examined for its clarity and relatedness to the purpose of the research. This resulted in some modifications such as specifying purchased clothing rather than clothing in general in certain questions.

Method of Data Collection

The researcher obtained 302 mailing addresses of older people who were members of senior centers and local churches located in Atlanta, Georgia. During the regular and social meetings, a copy of the questionnaire and the statement of the purpose of the study were presented to ask the members to be participants in the study. Older people who were interested in the study and didn't mind releasing their addresses wrote down their mailing addresses. After obtaining the list of the addresses, the researcher mailed
the questionnaire with a stamped envelope to these addresses. Four questionnaires were returned back because they were "undeliverable." The researcher received 160 questionnaires out of 298 questionnaires, but some of the returned questionnaires were not usable because they had many missing responses or subjects were under 55. The final sample of usable cases was 142 men and women aged 55 years and older.

Analysis of Data

After receiving the completed questionnaires, the data were scored and transferred onto the Virginia Tech mainframe computer system for analysis using the SAS statistical package.

The scales on body-cathexis, clothing attitude, fashion opinion leadership, shopping interest, and store patronage contain only positive items. These items were scored from one to four indicating that a higher score reflects a higher level of agreement and more positive feelings. However, self-esteem, satisfaction with ready-to-wear, and satisfaction with shopping contain negative items. In the self-esteem scale, five of the ten statements are negative. Satisfaction with ready-to-wear and satisfaction with
shopping contain only negative items. The negative items were reverse coded from four to one so that higher scores reflect higher self-esteem and satisfaction with ready-to-wear and shopping.

The six clothing expenditure categories were scored from one to six indicating that a higher score reflects a higher clothing expenditure. For sex, female was coded as "0" while male was coded as "1". "Married" was coded as "0" while "not-married" was coded as "1" in marital status. The five income categories were scored from 1 to 5 showing that a higher score reflects higher income. The scores for social participation status ranged from 1 to 4 indicating a higher score reflects a higher degree of social interaction. The three education categories were scored from 1 to 3 showing that a higher score reflects higher education.

The parts of the instrument measuring body-cathexis, self-esteem, clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, satisfaction with shopping, shopping interest, and store patronage were checked for reliability. Cronbach alpha, a measure of internal consistency of a scale, was calculated for each instrument. A scale can be considered to have good reliability if the scale has an alpha value greater than .60 (Schuessler, 1971).

Hypotheses were tested using the Pearson correlation
coefficient, Fisher's $Z_t$ transformation, and multiple regression. The Pearson correlation coefficients were calculated to investigate the relationships between body-cathexis, self-esteem, and clothing behavior. Fisher's $Z_t$ transformation was performed on the correlation coefficients and used to investigate whether the differences in the correlation coefficients were significant. This transformation score was calculated manually by using a table to determine $Z_t$ values. If the absolute $Z_t$ value is greater than $Z_{\alpha/2}$ value ($Z_{\alpha/2} = 2.58$ when the alpha significance level = .01; $Z_{\alpha/2} = 1.96$ when alpha = .05), there is a significant difference in the correlation coefficients (Howell, 1987). Multiple regression was employed to investigate the influence of each demographic variable on body-cathexis and clothing behavior because it can hold the other included independent variables constant.

**Hypothesis 1.** There is a positive relationship between body-cathexis and self-esteem of the elderly men and women subjects.

The Pearson correlation coefficient was used to test the hypothesis. Since body-cathexis consists of five areas of body parts (lower body, head/upper body, height, weight, and torso), the relationship between body-cathexis for each area and the self-esteem of the entire sample of the elderly
subjects was analyzed. The relationship between body-cathexis for all five areas together and self-esteem was also analyzed by the Pearson correlation coefficient.

In addition, the Pearson correlation coefficient was calculated, separately for each sex, to determine the relationship between body-cathexis (body-cathexis for all five areas together and each subscale of body-cathexis) and self-esteem of each sex. Fisher's Z transformation was used to determine whether differences in the correlation coefficients for men and women were significant. All rejection levels were set at the 0.05 significance level. Significance levels at 0.01 and 0.05 were reported.

**Hypothesis 2.** There is a positive relationship between body-cathexis and clothing behavior of the elderly men and women subjects.

The Pearson correlation coefficient was used to test the hypothesis. Since body-cathexis consists of five areas of body parts and clothing behavior includes seven dimensions (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, satisfaction with shopping, shopping interest, store patronage, and clothing expenditure), the relationships between body-cathexis (body-cathexis for all five areas together and each subscale of body-cathexis) and each dimension of clothing behavior for
the whole sample were analyzed.

In addition, the Pearson correlation coefficient was calculated, separately for each sex, to determine the relationships between body-cathexis (body-cathexis for all five areas together and each subscale of body-cathexis) and each dimension of clothing behavior of each sex. Fisher's $Z_1$ transformation was used to determine whether differences in the correlation coefficients for men and women were significant. All rejection levels were set at the 0.05 significance level. Significance levels at 0.01 and 0.05 were reported.

**Hypothesis 3.** There is a positive relationship between self-esteem and clothing behavior of the elderly men and women subjects.

The Pearson correlation coefficient was used to test the hypothesis. The relationships between each dimension of clothing behavior and self-esteem for the whole sample were analyzed. In addition, the Pearson correlation coefficient was calculated, separately for each sex, to determine the relationship between self-esteem and each dimension of clothing behavior of each sex. Fisher's $Z_1$ transformation was used to determine whether differences in the correlation coefficients for men and women were significant. All rejection levels were set at the 0.05 significance level.
Significance levels at 0.01 and 0.05 were reported.

**Hypothesis 4.** There is a relationship between body-cathexis and demographics of the elderly subjects.

Multiple regression was employed to find demographic (income, age, sex, marital status, education, and social participation) influences on body-cathexis of the elderly subjects. Given that body-cathexis contains five areas of body parts, five multiple regressions were performed to analyze the relationship between demographics and each area of body-cathexis. Also, demographic influences on body-cathexis for all five areas together were analyzed by multiple regression. All rejection levels were set at the 0.05 significance level. Significance levels at 0.01 and 0.05 were reported.

**Hypothesis 5.** There is a relationship between clothing behavior and demographics of the elderly subjects.

Multiple regression was employed to find demographic (income, age, sex, marital status, education, and social participation) influences on clothing behavior of the elderly subjects. Given that clothing behavior contains seven dimensions, seven multiple regressions were performed to analyze the relationship between demographics and each area of body-cathexis. All rejection levels were set at the 0.05 significance level. Significance levels at 0.01 and 0.05 were reported.
CHAPTER V

RESULTS AND DISCUSSION

The purpose of this study was to determine the relationships between 1) body-cathexis and self-esteem, 2) body-cathexis and clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping behavior, and clothing expenditure), 3) self-esteeem and clothing behavior, 4) body-cathexis and demographics (income, marital status, social participation, education, age, and sex), and 5) demographics and clothing behavior of selected men and women aged 55 years and older.

This chapter presents the description of the sample, reliability of parts of the instrument, and results of statistical analyses and their implications in relation to the hypotheses. The comparisons of the results of this study with related studies are also discussed. The statistical analyses conducted in this study were the Pearson correlation coefficient, Fisher's Z, transformation, and multiple regression. The Pearson correlation coefficients were used to analyze the relationships between body-cathexis, self-esteem, and clothing behavior of the men and women subjects. Fisher's Z, transformation was used to
find the similarities and differences between men and women in the sample for the relationships of these variables. Multiple regression was employed to find demographic influences on body-cathexis and clothing behavior of the subjects.

Description of Sample

The final sample used in this study consisted of 67 men and 75 women aged 55 years and older. The response rate was 48 percent. The respondents were residents of Atlanta, Georgia. The data were collected during October, 1993. The demographics of the respondents are presented in Table 1. In order to address sampling bias, the demographic characteristics of the respondents are compared to the U.S. population aged 55 years and older (U.S. Bureau of the Census, 1992). The comparison shows that the respondents appear to be relatively younger and more educated than the U.S. population aged 55 years and older. Marital status and household income of the respondents appear to be similar to those of the U.S. population in this age group.
Table 1
Description of respondents and U.S. population

<table>
<thead>
<tr>
<th>Variables</th>
<th>Respondents (n= 142)</th>
<th>U.S. population aged 55 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>65</td>
<td>45.7%</td>
</tr>
<tr>
<td>65-74</td>
<td>52</td>
<td>36.6%</td>
</tr>
<tr>
<td>75 and over</td>
<td>25</td>
<td>17.7%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67</td>
<td>47.2%</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>52.8%</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>98</td>
<td>69.0%</td>
</tr>
<tr>
<td>Not married</td>
<td>44</td>
<td>31.0%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade school or less</td>
<td>29</td>
<td>20.4%</td>
</tr>
<tr>
<td>High school</td>
<td>63</td>
<td>44.3%</td>
</tr>
<tr>
<td>Beyond high school</td>
<td>50</td>
<td>35.3%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under $9,999</td>
<td>12</td>
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</tr>
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<td>$10,000 to $19,999</td>
<td>19</td>
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</tr>
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</tr>
<tr>
<td>$30,000 to $39,999</td>
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<td>$40,000 and above</td>
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<td>36.5%</td>
</tr>
</tbody>
</table>

Instrument Reliability

Cronbach alpha coefficients were computed to test reliability. The coefficients shown in Table 2 indicate good reliability of the instrument. The scales for body-cathexis, self-esteem, and satisfaction with ready-to-wear have alpha values greater than 0.90 indicating high reliability. The other scales, including body-cathexis subscales and clothing behavior, had alpha values from 0.72 to 0.89 except torso and clothing attitude (torso, alpha= 0.62; clothing attitude, alpha= 0.68).

Results of Measured Variables

Mean values and standard deviation scores of variables for men and women are reported in Table 3. Generally, men subjects have higher body-cathexis (body-cathexis for all five areas together and each area of body-cathexis) than women subjects. While women subjects have higher scores on fashion opinion leadership and shopping interest, men subjects have higher scores on satisfactions with ready-to-wear and shopping.
Table 2
Cronbach alpha coefficients

<table>
<thead>
<tr>
<th>Scale and Subscales</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-cathexis</td>
<td>0.91</td>
</tr>
<tr>
<td>Lower body</td>
<td>0.82</td>
</tr>
<tr>
<td>Head/upper body</td>
<td>0.75</td>
</tr>
<tr>
<td>Height</td>
<td>0.82</td>
</tr>
<tr>
<td>Weight</td>
<td>0.74</td>
</tr>
<tr>
<td>Torso</td>
<td>0.62</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.93</td>
</tr>
<tr>
<td>Clothing attitude</td>
<td>0.68</td>
</tr>
<tr>
<td>Fashion opinion leadership</td>
<td>0.84</td>
</tr>
<tr>
<td>Satisfaction with ready-to-Wear</td>
<td>0.91</td>
</tr>
<tr>
<td>Satisfaction with shopping</td>
<td>0.72</td>
</tr>
<tr>
<td>Shopping interest</td>
<td>0.74</td>
</tr>
<tr>
<td>Store patronage</td>
<td>0.86</td>
</tr>
<tr>
<td>Variables</td>
<td>Men</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Body-cathexis</td>
<td>3.33</td>
</tr>
<tr>
<td>Lower body</td>
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</tr>
<tr>
<td>Head/upper body</td>
<td>3.34</td>
</tr>
<tr>
<td>Height</td>
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</tr>
<tr>
<td>Weight</td>
<td>3.06</td>
</tr>
<tr>
<td>Torso</td>
<td>3.30</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>3.37</td>
</tr>
<tr>
<td>Clothing attitude</td>
<td>3.07</td>
</tr>
<tr>
<td>Fashion opinion leadership</td>
<td>2.06</td>
</tr>
<tr>
<td>Satisfaction with ready-to-wear</td>
<td>2.76</td>
</tr>
<tr>
<td>Satisfaction with shopping</td>
<td>2.77</td>
</tr>
<tr>
<td>Shopping interest</td>
<td>2.10</td>
</tr>
<tr>
<td>Store patronage</td>
<td>2.45</td>
</tr>
</tbody>
</table>
Results of Hypothesis Testing

Hypothesis 1. There is a positive relationship between body-cathexis and self-esteem of the elderly men and women subjects.

In order to determine the relationship between body-cathexis and self-esteem, the Pearson correlation coefficient was calculated for the entire sample and for the men and women separately. Given that body-cathexis consists of five areas of body parts (lower body, head/upper body, height, weight, and torso), the relationships between each subscale of body-cathexis and self-esteem were analyzed in addition to the relationship between body-cathexis for all five areas together and self-esteem. The Pearson correlation coefficients between body-cathexis and self-esteem for the whole sample and for the men and women are presented in Table 4.

The Pearson correlation coefficient shows that there is a positive relationship between body-cathexis and self-esteem for the entire sample. Also, each subscale of body-cathexis and self-esteem is positively correlated for the whole sample. Results also show that there is a positive relationship between body-cathexis and self-esteem for both men and women subjects, except the relationship between satisfaction with weight and self-esteem is not significant.
Table 4

Pearson correlation coefficients between body-cathexis and self-esteem

<table>
<thead>
<tr>
<th>Correlation variables</th>
<th>Whole sample (N=142)</th>
<th>Men (N=67)</th>
<th>Women (N=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-cathexis/self-esteem</td>
<td>.67**</td>
<td>.52**</td>
<td>.77**</td>
</tr>
<tr>
<td>Lower body/self-esteem</td>
<td>.56**</td>
<td>.52**</td>
<td>.56**</td>
</tr>
<tr>
<td>Upper body/self-esteem</td>
<td>.62**</td>
<td>.45**</td>
<td>.72**</td>
</tr>
<tr>
<td>Height/self-esteem</td>
<td>.48**</td>
<td>.56**</td>
<td>.39**</td>
</tr>
<tr>
<td>Weight/self-esteem</td>
<td>.35**</td>
<td>.15</td>
<td>.43**</td>
</tr>
<tr>
<td>Torso/self-esteem</td>
<td>.58**</td>
<td>.44**</td>
<td>.64**</td>
</tr>
</tbody>
</table>

Note. ** p< .01
for men. The research hypothesis 1 is supported from these findings. The findings of this study can support the related studies (Secord & Jourard, 1953; Thomas, 1988; Wendel & Lester, 1988) which showed a positive relationship between body-cathexis and self-esteem of the general population.

In addition, the Fisher's $Z$, transformation score was determined to find whether there are significant sex differences in the correlation of body-cathexis and self-esteem. The Fisher's $Z$, transformation score is presented in Table 5. A positive score means that the women have a higher correlation between body-cathexis and self-esteem than men, while negative $Z$, score means the men have a higher correlation between body-cathexis and self-esteem. According to Table 5, there is a significant difference between the men and women in the correlation of body-cathexis for all five areas combined and self-esteem. Also, the men and women differ in regard to the correlation of two subscales of body-cathexis (upper body and weight) and self-esteem. Therefore, the self-esteem scores of the women subjects are more related to body-cathexis for all five areas together, upper body, and weight than are those of the men. However, there are no significant differences between the men and women subjects in the correlations between other
Table 5

Fisher's Z, transformation score

<table>
<thead>
<tr>
<th>Correlation Variables</th>
<th>Z, value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-cathexis/self-esteem</td>
<td>2.772**</td>
</tr>
<tr>
<td>Lower body/self-esteem</td>
<td>.354</td>
</tr>
<tr>
<td>Upper body/self-esteem</td>
<td>2.610**</td>
</tr>
<tr>
<td>Height/self-esteem</td>
<td>-1.279</td>
</tr>
<tr>
<td>Weight/self-esteem</td>
<td>2.665**</td>
</tr>
<tr>
<td>Torso/self-esteem</td>
<td>1.800</td>
</tr>
</tbody>
</table>

Note. ** p < .01
subscales of body-cathexis (lower body, height, torso) and self-esteem. The men and women are similar in these correlations.

The differences between sexes in the correlation of body-cathexis for certain body characteristics and self-esteem in this study are related with those of Wendel and Lester's (1988) study. Wendel and Lester showed that their men and women subjects differed in the relationship between certain body parts satisfaction and self-esteem. In their study, self-esteem scores correlated with certain body characteristics such as waist size and weight for college women. Women who were more satisfied with their hips and waists had higher self-esteem scores. For college men, self-esteem scores correlated with voice and profile. Men who were more satisfied with their voice and profile had higher self-esteem scores.

**Hypothesis 2.** There is a positive relationship between body-cathexis and clothing behavior of the elderly men and women subjects.

In order to determine the relationship between body-cathexis and clothing behavior, the Pearson correlation coefficient was calculated for the entire sample and for the men and women separately. Given that body-cathexis consists of five areas of body parts (lower body, head/upper body, height, weight, and torso), the relationships between each
and each dimension of clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, satisfaction with shopping, shopping interest, store patronage, and clothing expenditure) were analyzed in addition to the relationship between body-cathexis for all five areas together and each dimension of clothing behavior.

The Pearson correlation coefficients between body-cathexis and clothing behavior for the whole sample are presented in Table 6. The coefficients in the first column show that there is a significant positive relationship between body-cathexis and five dimensions of clothing behavior (clothing attitude, satisfaction with ready-to-wear, satisfaction with shopping, store patronage, and clothing expenditure) of the entire sample of the elderly subjects. Also, the subscales of body-cathexis and these five dimensions of clothing behavior are positively correlated for the whole sample. However, the relationships between body-cathexis and two dimensions of clothing behavior (fashion opinion leadership and shopping interest) are not significant. The research hypothesis 2 can be supported from the findings which show the positive relationship between body-cathexis and five dimensions of clothing behavior.

The positive relationship between body-cathexis and
Table 6
Pearson correlation coefficients between body-cathexis and clothing behavior of the entire sample

<table>
<thead>
<tr>
<th></th>
<th>Body-cathexis</th>
<th>Lower-body</th>
<th>Upper-body</th>
<th>Height</th>
<th>Weight</th>
<th>Torso</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing attitude</td>
<td>.34&quot;</td>
<td>.36&quot;</td>
<td>.35&quot;</td>
<td>.21'</td>
<td>.08</td>
<td>.26&quot;</td>
</tr>
<tr>
<td>Fashion opinion</td>
<td>.09</td>
<td>.08</td>
<td>.09</td>
<td>.07</td>
<td>.03</td>
<td>.12</td>
</tr>
<tr>
<td>leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with</td>
<td>.50&quot;</td>
<td>.39&quot;</td>
<td>.30&quot;</td>
<td>.35&quot;</td>
<td>.59&quot;</td>
<td>.34&quot;</td>
</tr>
<tr>
<td>ready-to-wear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with</td>
<td>.46&quot;</td>
<td>.38&quot;</td>
<td>.31&quot;</td>
<td>.28&quot;</td>
<td>.50&quot;</td>
<td>.33&quot;</td>
</tr>
<tr>
<td>shopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping interest</td>
<td>-.05</td>
<td>-.02</td>
<td>-.06</td>
<td>-.01</td>
<td>-.04</td>
<td>-.09</td>
</tr>
<tr>
<td>Store Patronage</td>
<td>.29&quot;</td>
<td>.36&quot;</td>
<td>.22'</td>
<td>.31&quot;</td>
<td>.06</td>
<td>.22'</td>
</tr>
<tr>
<td>Clothing expenditure</td>
<td>.40&quot;</td>
<td>.37&quot;</td>
<td>.31&quot;</td>
<td>.26&quot;</td>
<td>.30&quot;</td>
<td>.28&quot;</td>
</tr>
</tbody>
</table>

Note. **p<.01 and *p<.05
satisfaction with ready-to-wear in this study is related to that of LaBat's (1988) study. LaBat reported that higher body-cathexis was associated with more satisfaction with the fit of ready-to-wear clothing among female consumers. Shim et al. (1991) also found that those who were most satisfied with their bodies and had a favorable attitude toward clothing were likely to be satisfied with ready-to-wear and be heavy purchasers of clothing. LaBat and DeLong (1990) reported a significant relationship between body-cathexis and satisfaction with fit of apparel, especially in satisfaction with fit of lower parts of apparel and lower parts of body.

In addition, the Pearson correlation coefficients between body-cathexis and clothing behavior were measured for men and women subjects separately (Tables 7 and 8). The coefficients show that the women have significant correlations between body-cathexis and all seven dimensions of clothing behavior while the men have significant correlations between body-cathexis and four dimensions of clothing behavior (clothing attitude, satisfaction with shopping, satisfaction with ready-to-wear, and clothing expenditure). It means body-cathexis plays a more important role in overall clothing behavior of elderly women than of elderly men. According to Greenwood (1984), women are more humiliated by body changes than men. Lake (1979) noted that
Table 7

Pearson correlation coefficients between body-cathexis and clothing behavior of men subjects

<table>
<thead>
<tr>
<th></th>
<th>Body-cathexis</th>
<th>Lower-body</th>
<th>Upper-body</th>
<th>Height</th>
<th>Weight</th>
<th>Torso</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing attitude</td>
<td>.38**</td>
<td>.33*</td>
<td>.29*</td>
<td>.29</td>
<td>.26</td>
<td>.36</td>
</tr>
<tr>
<td>Fashion opinion leadership</td>
<td>-.16</td>
<td>-.22</td>
<td>-.13</td>
<td>-.08</td>
<td>-.04</td>
<td>-.18</td>
</tr>
<tr>
<td>Satisfaction with ready-to-wear</td>
<td>.39**</td>
<td>.34*</td>
<td>.29*</td>
<td>.24</td>
<td>.38**</td>
<td>.29</td>
</tr>
<tr>
<td>Satisfaction with shopping</td>
<td>.36*</td>
<td>.30*</td>
<td>.29*</td>
<td>.18</td>
<td>.31*</td>
<td>.33</td>
</tr>
<tr>
<td>Shopping interest</td>
<td>-.17</td>
<td>-.14</td>
<td>-.22</td>
<td>-.16</td>
<td>-.03</td>
<td>-.15</td>
</tr>
<tr>
<td>Store Patronage</td>
<td>.20</td>
<td>.22</td>
<td>.15</td>
<td>.32*</td>
<td>-.01</td>
<td>.18</td>
</tr>
<tr>
<td>Clothing expenditure</td>
<td>.35*</td>
<td>.35*</td>
<td>.38**</td>
<td>.25</td>
<td>.22</td>
<td>.16</td>
</tr>
</tbody>
</table>

Note. **p<.01 and *p<.05
Table 8

Pearson correlation coefficients between body-cathexis and clothing behavior of women subjects

<table>
<thead>
<tr>
<th></th>
<th>Body-cathexis</th>
<th>Lower-body</th>
<th>Upper-body</th>
<th>Height</th>
<th>Weight</th>
<th>Torso</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing attitude</td>
<td>.37&quot;</td>
<td>.46&quot;</td>
<td>.42&quot;</td>
<td>.16</td>
<td>-.01</td>
<td>.22</td>
</tr>
<tr>
<td>Fashion opinion leadership</td>
<td>.48&quot;</td>
<td>.44&quot;</td>
<td>.34&quot;</td>
<td>.27'</td>
<td>.24</td>
<td>.45&quot;</td>
</tr>
<tr>
<td>Satisfaction with ready-to-wear</td>
<td>.49&quot;</td>
<td>.29'</td>
<td>.24</td>
<td>.37&quot;</td>
<td>.65&quot;</td>
<td>.28'</td>
</tr>
<tr>
<td>Satisfaction with shopping</td>
<td>.44&quot;</td>
<td>.31'</td>
<td>.25&quot;</td>
<td>.29'</td>
<td>.54&quot;</td>
<td>.24</td>
</tr>
<tr>
<td>Shopping interest</td>
<td>.32'</td>
<td>.36&quot;</td>
<td>.22</td>
<td>.25'</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Store Patronage</td>
<td>.40&quot;</td>
<td>.50&quot;</td>
<td>.27'</td>
<td>.31'</td>
<td>.11</td>
<td>.30'</td>
</tr>
<tr>
<td>Clothing expenditure</td>
<td>.47&quot;</td>
<td>.43&quot;</td>
<td>.25</td>
<td>.26'</td>
<td>.39&quot;</td>
<td>.39&quot;</td>
</tr>
</tbody>
</table>

Note. **p<.01 and *p<.05
middle-aged women tried to diet and stay younger-looking through appropriate selection of clothing. In this context, elderly women may be more concerned about their body image and clothing, so they have more correlations between body satisfaction and clothing behavior than elderly men.

The Fisher's Z transformation scores are presented in Table 9 to find sex differences in the correlations between body-cathexis and clothing behavior. According to Table 9, the women have higher correlations between body-cathexis and fashion opinion leadership, body-cathexis and store patronage, lower body satisfaction and store patronage, and weight satisfaction and satisfaction with ready-to-wear than do men. However, the men and women are similar in the majority of correlations between subscales of body-cathexis and clothing behavior dimensions. The high correlation between weight satisfaction and satisfaction with ready-to-wear in elderly women in this study is related with the finding of LaBat and DeLong's (1990) study which showed a significant relationship between satisfaction with lower body (weight, hips, and thighs) and fit of ready-to-wear in younger women subjects.
### Table 9

Fisher's Z, transformation scores for body-cathexis and clothing behavior

<table>
<thead>
<tr>
<th>Correlation Variables</th>
<th>Z, value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-cathexis/clothing attitude</td>
<td>-0.02</td>
</tr>
<tr>
<td>Body-cathexis/fashion opinion leadership</td>
<td>2.17*</td>
</tr>
<tr>
<td>Body-cathexis/satisfaction with ready-to-wear</td>
<td>0.68</td>
</tr>
<tr>
<td>Body-cathexis/satisfaction with shopping</td>
<td>0.59</td>
</tr>
<tr>
<td>Body-cathexis/shopping interest</td>
<td>1.02</td>
</tr>
<tr>
<td>Body-cathexis/store patronage</td>
<td>1.99*</td>
</tr>
<tr>
<td>Body-cathexis/clothing expenditure</td>
<td>0.48</td>
</tr>
<tr>
<td>Lower body/clothing attitude</td>
<td>0.96</td>
</tr>
<tr>
<td>Lower body/fashion opinion leadership</td>
<td>1.54</td>
</tr>
<tr>
<td>Lower body/satisfaction with ready-to-wear</td>
<td>-0.29</td>
</tr>
<tr>
<td>Lower body/satisfaction with shopping</td>
<td>0.04</td>
</tr>
<tr>
<td>Lower body/shopping interest</td>
<td>1.40</td>
</tr>
<tr>
<td>Lower body/store patronage</td>
<td>1.98*</td>
</tr>
<tr>
<td>Lower body/clothing expenditure</td>
<td>0.59</td>
</tr>
<tr>
<td>Upper body/clothing attitude</td>
<td>0.89</td>
</tr>
<tr>
<td>Upper body/fashion opinion leadership</td>
<td>1.39</td>
</tr>
<tr>
<td>Upper body/satisfaction with ready-to-wear</td>
<td>-0.32</td>
</tr>
<tr>
<td>Upper body/satisfaction with shopping</td>
<td>-0.29</td>
</tr>
<tr>
<td>Upper body/shopping interest</td>
<td>1.25</td>
</tr>
<tr>
<td>Upper body/store patronage</td>
<td>0.79</td>
</tr>
<tr>
<td>Upper body/clothing expenditure</td>
<td>-0.77</td>
</tr>
<tr>
<td>Height/clothing attitude</td>
<td>-0.88</td>
</tr>
<tr>
<td>Height/fashion opinion leadership</td>
<td>1.23</td>
</tr>
<tr>
<td>Height/satisfaction with ready-to-wear</td>
<td>0.88</td>
</tr>
<tr>
<td>Height/satisfaction with shopping</td>
<td>0.70</td>
</tr>
<tr>
<td>Height/shopping interest</td>
<td>0.52</td>
</tr>
<tr>
<td>Height/store patronage</td>
<td>-0.05</td>
</tr>
<tr>
<td>Height/clothing expenditure</td>
<td>0.04</td>
</tr>
<tr>
<td>Weight/clothing attitude</td>
<td>-1.56</td>
</tr>
<tr>
<td>Weight/fashion opinion leadership</td>
<td>1.22</td>
</tr>
<tr>
<td>Weight/satisfaction with ready-to-wear</td>
<td>2.25*</td>
</tr>
<tr>
<td>Weight/satisfaction with shopping</td>
<td>1.78</td>
</tr>
<tr>
<td>Weight/shopping interest</td>
<td>0.87</td>
</tr>
<tr>
<td>Weight/store patronage</td>
<td>0.63</td>
</tr>
<tr>
<td>Weight/clothing expenditure</td>
<td>1.00</td>
</tr>
<tr>
<td>Torso/clothing attitude</td>
<td>0.96</td>
</tr>
<tr>
<td>Torso/fashion opinion leadership</td>
<td>1.12</td>
</tr>
<tr>
<td>Torso/satisfaction with ready-to-wear</td>
<td>-0.04</td>
</tr>
<tr>
<td>Torso/satisfaction with shopping</td>
<td>-0.56</td>
</tr>
<tr>
<td>Torso/shopping interest</td>
<td>0.06</td>
</tr>
<tr>
<td>Torso/store patronage</td>
<td>0.63</td>
</tr>
<tr>
<td>Torso/clothing expenditure</td>
<td>1.49</td>
</tr>
</tbody>
</table>

Note. ** p < .01 and * p < .05
Hypothesis 3. There is a positive relationship between self-esteem and clothing behavior of the elderly men and women subjects.

In order to determine the relationship between self-esteem and each dimension of clothing behavior, the Pearson correlation coefficient was calculated for the entire sample and for the men and women subjects separately (Table 10). The coefficients show a positive relationship between self-esteem and five dimensions (clothing attitude, satisfaction with ready-to-wear, satisfaction with shopping, store patronage, and clothing expenditure) of clothing behavior for the whole sample. From this result, the research hypothesis 3 can be supported although the relationships between self-esteem and two dimensions of clothing behavior (fashion opinion leadership and shopping interest) are not significant. The positive relationship between self-esteem and dimensions of clothing behavior in this study supports several researchers (Holloman, 1989; Humphrey, Klaasen, & Creekmore, 1971).

When it comes to the similarities and differences between sexes, there is a positive relationship between self-esteem and fashion opinion leadership for the women while there is no correlation for the men. For the relationship between self-esteem and shopping interest, neither sex has a significant correlation between these
<table>
<thead>
<tr>
<th>Correlation variables</th>
<th>Whole sample (N=142)</th>
<th>Men (N=67)</th>
<th>Women (N=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing attitude /self-esteem</td>
<td>.30**</td>
<td>.21</td>
<td>.38**</td>
</tr>
<tr>
<td>Fashion opinion leadership /self-esteem</td>
<td>.15</td>
<td>-.04</td>
<td>.36**</td>
</tr>
<tr>
<td>Satisfaction with ready-to-wear/self-esteem</td>
<td>.39**</td>
<td>.29*</td>
<td>.41**</td>
</tr>
<tr>
<td>Satisfaction with shopping /self-esteem</td>
<td>.40**</td>
<td>.33*</td>
<td>.40**</td>
</tr>
<tr>
<td>Shopping interest /self-esteem</td>
<td>-.07</td>
<td>-.23</td>
<td>.15</td>
</tr>
<tr>
<td>Store patronage /self-esteem</td>
<td>.32**</td>
<td>.27*</td>
<td>.35**</td>
</tr>
<tr>
<td>Clothing expenditure /self-esteem</td>
<td>.42**</td>
<td>.42**</td>
<td>.42**</td>
</tr>
</tbody>
</table>

Note. ** p< .01 and * p< .05
variables. Table 11 presents the Fisher's Z transformation scores for assessing differences between sexes in regard to the correlation between self-esteem and each dimension of clothing behavior. According to Table 11, the men and women subjects are similar in their correlations between self-esteem and dimensions of clothing behavior except fashion opinion leadership. Elderly women have a significantly higher correlation than do elderly men in the relationship between fashion opinion leadership and self-esteem.

**Hypothesis 4.** There is a relationship between body-cathexis and demographics of the elderly subjects.

Multiple regression was used to investigate the relationship between body-cathexis (body cathexis for all five areas together, lower body, upper body, height, weight, and torso) and demographics (sex, age, income, marital status, social participation, and education) of the subjects. According to Table 12, there is a relationship between body-cathexis for all five areas together and four demographic variables (sex, income, social participation, and education). It means that elderly are more satisfied with their bodies than are elderly women. Also, the elderly subjects who have a higher income, social participation status, and education are more satisfied with their bodies. From this result, research hypothesis 4 is partially
Table 11

Fisher's Z, transformation scores for self-esteem and clothing behavior

<table>
<thead>
<tr>
<th>Correlation Variables</th>
<th>Z, value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing attitude /self-esteem</td>
<td>1.13</td>
</tr>
<tr>
<td>Fashion opinion leadership /self-esteem</td>
<td>2.05*</td>
</tr>
<tr>
<td>Satisfaction with ready-to-wear/self-esteem</td>
<td>0.81</td>
</tr>
<tr>
<td>Satisfaction with shopping /self-esteem</td>
<td>0.05</td>
</tr>
<tr>
<td>Shopping interest /self-esteem</td>
<td>-0.49</td>
</tr>
<tr>
<td>Store patronage /self-esteem</td>
<td>0.44</td>
</tr>
<tr>
<td>Clothing expenditure /self-esteem</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Note. ** p < .01 and * p < 0.05
### Table 12

Estimated regression coefficients and t-values for the relationship between body-cathexis and demographics

<table>
<thead>
<tr>
<th></th>
<th>Body-cathexis</th>
<th>Lower-body</th>
<th>Upper-body</th>
<th>Height</th>
<th>Weight</th>
<th>Torso</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>28.68</td>
<td>11.13</td>
<td>9.09</td>
<td>2.29</td>
<td>-0.47</td>
<td>6.65</td>
</tr>
<tr>
<td></td>
<td><strong>t=2.42</strong>&quot;</td>
<td><strong>t=2.97&quot;</strong></td>
<td><strong>t=2.13&quot;</strong></td>
<td><strong>t=1.09</strong></td>
<td><strong>t= -.14</strong></td>
<td><strong>t=2.44&quot;</strong></td>
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<tr>
<td><strong>Sex</strong></td>
<td>3.44</td>
<td>1.53</td>
<td>0.09</td>
<td>0.14</td>
<td>1.08</td>
<td>0.58</td>
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<tr>
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<td><strong>t=3.18&quot;</strong></td>
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<td><strong>t=2.45&quot;</strong></td>
<td><strong>t=1.66</strong></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>1.88</td>
<td>0.59</td>
<td>0.37</td>
<td>0.09</td>
<td>0.58</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td><strong>t=2.72&quot;</strong></td>
<td><strong>t=2.73&quot;</strong></td>
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<td><strong>t=0.75</strong></td>
<td><strong>t=2.92&quot;</strong></td>
<td><strong>t=1.52</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
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<td>-0.06</td>
<td>0.03</td>
<td>0.02</td>
<td>0.06</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td><strong>t=0.23</strong></td>
<td><strong>t= -1.26</strong></td>
<td><strong>t=0.65</strong></td>
<td><strong>t=0.73</strong></td>
<td><strong>t=1.36</strong></td>
<td><strong>t= -0.60</strong></td>
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<tr>
<td><strong>Marital status</strong></td>
<td>0.70</td>
<td>0.79</td>
<td>-0.53</td>
<td>-0.06</td>
<td>0.08</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td><strong>t=0.43</strong></td>
<td><strong>t=1.55</strong></td>
<td><strong>t= -0.91</strong></td>
<td><strong>t= -0.21</strong></td>
<td><strong>t=0.16</strong></td>
<td><strong>t=1.13</strong></td>
</tr>
<tr>
<td><strong>Social</strong></td>
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<td>0.88</td>
<td>0.23</td>
<td>0.81</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td><strong>t=2.16&quot;</strong></td>
<td><strong>t=0.32</strong></td>
<td><strong>t=2.29&quot;</strong></td>
<td><strong>t=1.19</strong></td>
<td><strong>t=2.62&quot;</strong></td>
<td><strong>t=1.20</strong></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>4.52</td>
<td>0.68</td>
<td>1.88</td>
<td>0.88</td>
<td>0.31</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td><strong>t=3.17&quot;</strong></td>
<td><strong>t=1.53</strong></td>
<td><strong>t=3.65&quot;</strong></td>
<td><strong>t=3.47&quot;</strong></td>
<td><strong>t=0.74</strong></td>
<td><strong>t=2.34&quot;</strong></td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>0.39</td>
<td>0.33</td>
<td>0.30</td>
<td>0.19</td>
<td>0.29</td>
<td>0.24</td>
</tr>
</tbody>
</table>

**Note.** **p<.01** and **p<.05**
supported. The findings also can support Wendel and Lester (1988) who addressed sex differences on body satisfaction of younger people. Also, these findings are related to Hamilton and Chowdhary's (1989) discussion regarding the impact of education and employment on body-cathexis of women.

In addition, there are relationships between subscales of body-cathexis and some demographic variables. Men subjects are more satisfied with lower body and weight than are women. The subjects with higher income are more satisfied with lower body and weight. The subjects with higher degree of social participation status are more satisfied with upper body and weight. The subjects with higher education are more satisfied with upper body, height, and torso. These findings mean that the relative importance of demographic variables on a specific area of body parts are different in the elderly subjects.

**Hypothesis 5.** There is a relationship between clothing behavior and demographics of the elderly subjects.

Multiple regression was performed to investigate the relationships between demographics (income, age, sex, education, social participation, and marital status) and clothing behavior (clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, satisfaction with shopping, shopping interest, store patronage, and
clothing expenditure) of the elderly men and women subjects.

According to Table 13, there is a relationship between clothing attitude and social participation, sex and fashion opinion leadership, sex and satisfaction with ready-to-wear, sex and shopping interest, and income and clothing expenditure. Research hypothesis 5 is partially supported from the results. The relationship between clothing attitude and social participation can be explained in the context of using clothing in social interactions. People who have more social interactions may have a more favorable attitude toward clothing because clothing can be used as a means of social interaction. There are relationships between sex and three dimensions of clothing behavior (fashion opinion leadership, satisfaction with ready-to-wear, and shopping interest). Women in the sample have a higher degree of fashion opinion leadership and shopping interest than the men. However, the women are more dissatisfied with ready-to-wear than the men. The elderly women's dissatisfaction with ready-to-wear may be related with Richards' (1981) observation that elderly men have less difficulty with fit than do elderly women because they wear separate shirts and trousers.

Results also show that there is a positive relationship between income and clothing expenditure. This is consistent with Jackson's (1992) study which showed that the level of
Table 13

Estimated regression coefficients and t-values for the relationship between clothing behavior and demographics

<table>
<thead>
<tr>
<th></th>
<th>CA</th>
<th>FOL</th>
<th>RTW</th>
<th>SWS</th>
<th>SI</th>
<th>SP</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>14.92</td>
<td>10.93</td>
<td>22.15</td>
<td>19.68</td>
<td>5.41</td>
<td>3.96</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>t=3.681&quot;</td>
<td>t=2.93&quot;</td>
<td>t=1.62</td>
<td>t=2.96&quot;</td>
<td>t=1.94</td>
<td>t=1.30</td>
<td>t=0.19</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.68</td>
<td>-1.33</td>
<td>3.06</td>
<td>1.51</td>
<td>-1.51</td>
<td>-0.39</td>
<td>-0.37</td>
</tr>
<tr>
<td></td>
<td>t=-1.31</td>
<td>t=-2.78&quot;</td>
<td>t=2.17*</td>
<td>t=1.76</td>
<td>t=-4.18&quot;</td>
<td>t=-0.99</td>
<td>t=-1.75</td>
</tr>
<tr>
<td>Income</td>
<td>-0.23</td>
<td>-0.01</td>
<td>1.49</td>
<td>0.61</td>
<td>-0.10</td>
<td>0.05</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>t=-1.01</td>
<td>t=-0.04</td>
<td>t=1.87</td>
<td>t=1.57</td>
<td>t=-0.67</td>
<td>t=0.33</td>
<td>t=9.90&quot;</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>-0.06</td>
<td>-0.04</td>
<td>-0.10</td>
<td>0.02</td>
<td>-0.01</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>t=0.17</td>
<td>t=-1.34</td>
<td>t=-0.23</td>
<td>t=-1.23</td>
<td>t=0.53</td>
<td>t=-0.45</td>
<td>t=-0.18</td>
</tr>
<tr>
<td>Marital status</td>
<td>-1.07</td>
<td>-0.40</td>
<td>0.36</td>
<td>-0.03</td>
<td>-0.69</td>
<td>-0.20</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>t=-1.93</td>
<td>t=-0.79</td>
<td>t=0.19</td>
<td>t=-0.04</td>
<td>t=-1.82</td>
<td>t=-0.49</td>
<td>t=-0.14</td>
</tr>
<tr>
<td>Social Participation</td>
<td>0.73</td>
<td>0.16</td>
<td>1.07</td>
<td>0.17</td>
<td>0.24</td>
<td>0.36</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>t=2.00*</td>
<td>t=0.50</td>
<td>t=0.87</td>
<td>t=0.29</td>
<td>t=0.97</td>
<td>t=1.35</td>
<td>t=-0.08</td>
</tr>
<tr>
<td>Education</td>
<td>0.34</td>
<td>-0.00</td>
<td>2.63</td>
<td>0.54</td>
<td>-0.30</td>
<td>0.44</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>t=0.69</td>
<td>t=0.00</td>
<td>t=1.59</td>
<td>t=0.67</td>
<td>t=-0.90</td>
<td>t=1.19</td>
<td>t=0.69</td>
</tr>
<tr>
<td>R²</td>
<td>0.10</td>
<td>0.11</td>
<td>0.20</td>
<td>0.17</td>
<td>0.21</td>
<td>0.08</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Note. **p<0.01 and *p<0.05

CA: clothing attitude
FOL: fashion opinion leadership
RTW: satisfaction with ready-to-wear
SWS: satisfaction with shopping
SI: shopping interest
SP: store patronage
CE: clothing expenditure
apparel expenditure was significantly related to income class. As Norton and Park (1987) noted that income is the most important variable affecting clothing expenditure, this study reaassures that income is the most important indicator of clothing expenditure in mature consumers. However, other variables such as age, sex, marital status, social participation, and education have no significant influence on clothing expenditure of mature consumers when controlling for the other variables in this study. This is inconsistent with the findings of several researchers (Dardis, Derrick, & Lehfeld, 1981; Nielson, 1978; Norum, 1989) who reported the relationships between clothing expenditure and other demographic variables (age, sex, marital status, and education) in the general population. One of the possible explanations for this discrepancy may be that this study used data grouped by level of apparel expenditures instead of actual dollar values. Another possible explanation is that there may be differences between young and old populations in regard to demographic influences on clothing expenditure.

Although most clothing behavior variables are related with specific demographic variables, satisfaction with shopping and store patronage are not related with any demographic variables. It means demographic characteristics cannot predict these clothing behavior variables of the
elderly subjects in this study. Also, two demographic variables, age and marital status, have no relationship with any dimensions of clothing behavior. Therefore, age and marital status are not important in clothing behavior of elderly subjects in this study.
CHAPTER VI

SUMMARY AND CONCLUSION

This study investigated the relationship between body-cathexis, self-esteem, clothing behavior, and demographics of men and women 55 years and older. Through mail survey, the sample of 142 elderly men and women who were residents of Atlanta, Georgia was obtained. The respondents were slightly younger and more educated than the U.S. population aged 55 years and older. Marital status and income distribution of the respondents were similar to those of the U.S. elderly population.

An instrument was developed for data collection. The body-cathexis scale was modified from Shim et al.'s (1991) study, and it consisted of the degree of satisfaction with five areas of body parts: lower body (legs, calves, knees, feet), head/upper body (face, hair, eyes, nose, teeth, voice), height (overall height, leg length), weight (overall weight, waist, hips), and torso (bust, neck, muscular strength). A modification of Rosenberg's (1965) self-esteem scale was used with a 4-point Likert scale ranging from agree (4) to disagree(1). Clothing behavior consisted of seven dimensions: clothing attitude, fashion opinion leadership, satisfaction with ready-to-wear, shopping
interest, satisfaction with shopping, store patronage, and clothing expenditure. The six demographic variables were income, marital status, sex, social participation, education, and age. The reliability of scales in the instrument was checked by Cronbach coefficient alpha, and showed good reliability.

To test hypotheses formulated for this study, the Pearson correlation coefficient, Fisher's Z, transformation, and multiple regression were used. The Pearson correlation coefficients were measured to investigate the relationships between body cathexis, self-esteem, and clothing behavior for the entire sample and for the men and women subjects separately. Fisher's Z, transformation score was used to find similarities and differences of men and women in the correlations between body-cathexis, self-esteem, and clothing behavior. Multiple regression was used to investigate the relation of demographic variables to body-cathexis and clothing behavior of the men and women subjects.

Results showed that there is a positive relationship between body-cathexis and self-esteem of the men and women subjects. There is also a positive relationship between each subscale of body-cathexis and self-esteem of the men and women subjects. These findings imply that body-cathexis
is an important variable in self-esteem of older people. As previous studies dealing with the younger population showed the impact of body-cathexis on self-esteem, the findings of this study also show the importance of body-cathexis in self-esteem of older people.

Results also showed that there is a positive relationship between body-cathexis and five dimensions of clothing behavior (clothing attitude, satisfaction with ready-to-wear, satisfaction with shopping, store patronage, and clothing expenditure) of the entire sample of subjects. In addition, there is a positive relationship between each subscale of body-cathexis and five dimensions of clothing behavior. These findings are consistent with previous studies which showed a positive relationship between body-cathexis and dimensions of clothing behavior of the general population.

In the relationship between self-esteem and clothing behavior of the elderly subjects, positive correlations between self-esteem and five dimensions of clothing behavior (clothing attitude, satisfaction with ready-to-wear, satisfaction with shopping, store patronage, and clothing expenditure) of the entire sample existed. These results show that self-esteem and clothing behavior are closely related concepts in older people, and the findings support the previous studies which showed the positive relationship
between self-esteem and clothing behavior of the younger population.

Therefore, the hypotheses regarding the relationships between body-cathexis, self-esteem, and clothing behavior of the elderly subjects can be supported by the findings which showed a significant relationship among these variables. The significant correlations between body-cathexis, self-esteem, and five dimensions of clothing behavior of the study imply the importance of body-cathexis of older people in their self-esteem and dimensions of clothing behavior, and the fact that elderly people are not much different from the younger population in the relationships of these variables. However, it should be noted that two dimensions of clothing behavior (shopping interest and fashion opinion leadership) are not important in self-esteem and body-cathexis of the entire group of subjects. The reason for these insignificant relationships stems from the finding that fashion opinion leadership and shopping interest are not important concepts in self-esteem and body-cathexis in the elderly men subjects in this study.

In addition, Fisher's z, transformation scores detected the sex differences in regard to the correlations between body-cathexis, self-esteem, and clothing behavior. It appears that self-esteem and clothing behavior of elderly
women are more likely to be influenced by their body satisfactions than are those of elderly men subjects. In the case of the elderly women, total body-cathexis and satisfaction with weight have higher correlations with self-esteem and several dimensions of clothing behavior (fashion opinion leadership, store patronage, and satisfaction with ready-to wear) than those of the elderly men subjects. It means that elderly women's satisfaction with their total body and with weight plays a more important role in their fashion opinion leadership, store patronage, and satisfaction with ready-to-wear. Since the culture focuses on the young, thin body as the ideal body image and women are said to be more humiliated by body changes than men (Greenwood, 1984), the close relationship of satisfaction with weight and the total body to self-esteem and clothing behavior in elderly women can be explained in this context.

In testing hypotheses regarding the influence of demographics on body-cathexis and clothing behavior of older people, multiple regression results show that there is a relationship between body-cathexis and four demographic variables (sex, income, social participation, and education). Elderly men are more satisfied with their bodies than are elderly women. The elderly subjects who have higher income, social participation status, and education are more satisfied with their bodies. These
findings imply that these demographic variables are important in body satisfaction of older people. Also, the findings imply that the relative importance of demographic variables is different in regard to areas of body parts satisfaction.

Results also showed that there are relationships between clothing attitude and social participation, sex and fashion opinion leadership, sex and shopping interest, sex and satisfaction with shopping, and income and clothing expenditure. From these results, we can conclude that the relative importance of the demographic variables varies with regard to different dimensions of clothing behavior. Because of the variation in relative importance of demographic variables on satisfaction with specific body areas and dimensions of clothing behavior, more investigation is needed to address the influence of each demographic variable on each dimension of body-cathexis and clothing behavior with a larger sample size.

The results of this study imply that the elderly population is not an isolated segment in that the elderly subjects did not much differ in their attitudes compared to what is known about the younger population. Since today's culture considers the thin, young body ideal, older people may be affected by this phenomenon and care about their bodies and appearance. Therefore, elderly people's body-
cathexis can affect their self-esteem and clothing behavior. In this context, the findings generated from this study showed that older people's body satisfaction is closely related to their self-esteem and clothing behavior. Therefore, body-cathexis is an important concept in the study of self-esteem and clothing behavior of older people. The findings of the importance of body-cathexis of older people can contribute the body of knowledge concerning the elderly since there are almost no studies about body-cathexis of older people.

Also, close relationships between body-cathexis, self-esteem, and clothing behavior of older people are important to apparel manufacturers and marketers since older people may suffer undesirable body changes and try to compensate for their dissatisfaction with their bodies through their clothing choices. Research on clothing design as well as marketing strategies is needed to provide information that can be used to address the clothing needs of older consumers. Because elderly people suffer body changes and their body image can affect their self-esteem, educational programs and assistance from family educators are needed to help older people recognize how they can accommodate and negotiate their body changes to achieve high self-esteem.
CHAPTER VII

SUGGESTIONS FOR FUTURE RESEARCH

1. The sample of the study appeared to be relatively younger and more educated than the U.S. population aged 55 years and older. Studies focused on older people aged 75 years and older are needed because the number of this age group is increasing faster than any other population segment, and the relationships between body-cathexis, self-esteem, and clothing behavior need to be replicated for this population.

2. Although the findings of this study showed that elderly subjects did not differ in the relationships between body-cathexis, self-esteem, and clothing behavior compared to younger people in other previous studies, there is a limitation in the comparison because all dimensions of body-cathexis and clothing behavior of this study are not identical with those of previous studies. A comparison of the elderly and younger people in one study is needed to find their similarities and differences more clearly.

3. This study showed that there is a positive relationship between body-cathexis and clothing attitude. However, in their study for male subjects aged 18 years and older, Shim et al. (1991) noted that the relationship
between body-cathexis and clothing attitude was not uni-
dimensional. More investigations regarding the validity of
the clothing attitude scale are needed because the scale
focused on the work environment rather than general social
interaction situations. Also, studies on the relationship
between body-cathexis and clothing attitude are needed to
determine the dimensionality of the relationship with
diverse subjects.

4. Because there are relationships between special
areas of body parts and dimensions of clothing behavior,
more research on dimensions of body-cathexis is needed.
Although each area of body-cathexis has its own special
characteristics, there are very few studies regarding
dimensions of body-cathexis. This study has limitation in
this aspect because there is no absolute standard in
categorizing body parts, and because women and men may have
different points of view in categorizing their body parts.

5. According to this study, income is the only
indicator in clothing expenditure. This finding is
consistent with some studies, but is not consistent with
other studies which showed other demographic influences on
clothing expenditure. Because this study used data grouped
by level of income and clothing expenditure rather than
their actual dollar values, studies on actual values of
income and clothing expenditure, with larger samples are
needed to investigate clearer relationships between demographics and clothing expenditure.
REFERENCES


Home Economics Research Journal, 10, 212-221.


Newton, A. (1984). The importance placed on clothing comfort by a group of 50 years and older in three situations. Wellness Perspectives, 1(4), 41-44.


Pittsburgh, Pittsburgh.


Appendix A
Cover Letter and the Questionnaire
Dear Respondent:

We are conducting research on consumers' attitudes toward shopping and clothing available on the market. Your ideas are important to us, and your answers can help apparel manufacturers and retailers meet consumers' clothing needs better.

We hope you answer all questions. All your answers will be confidential.

If you have any questions or suggestions regarding our research, please contact us through the Department of Clothing and Textiles. Also, if you are interested in the results of the study, please contact us and we'll gladly send them.

Thank you for your time and cooperation.

Sincerely,

Marjorie Norton
Department Head
phone: (703)-231-6179

JinSook Hwang
Graduate Assistant
### THE QUESTIONNAIRE

**Section A:** Each item below is related to a part of your body. For each item please circle the number that tells how you feel.

<table>
<thead>
<tr>
<th>Item</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neck</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Calves</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. Teeth</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Face</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Hair</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Nose</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Hips</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Knees</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>9. Legs</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>10. Voice</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. Overall Height</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. Leg length</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. Overall weight</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>14. Feet</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15. Waist</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16. Bust</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17. Eyes</td>
<td>4</td>
<td>3</td>
<td>2</td>
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</tr>
<tr>
<td>18. Muscular strength</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Section B: Here are some questions about your opinions. Please circle the number that tells how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Tend to Agree</th>
<th>Tend to Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that I have many good qualities.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Clothing is valuable to me.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. My friends or neighbors regard me as a good source of advice on clothing fashions.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. In general, clothing styles sold in stores seem unattractive on mature people.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. I am inclined to feel that I am a failure.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Wearing proper clothing helps me gain respect.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. It is difficult for me to find clothing styles that are suitable for evening or formal wear.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Salesclerks in clothing stores are usually too aggressive...too pushy.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. I am able to do things as well as most people.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Often purchased clothing is too binding around my shoulders or arms.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. Dressing well is important for advancement of one's career.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. I buy my clothes at a particular store as a matter of preference.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. Others often turn to me for advice on fashion and clothing.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

96
14. Clothing styles sold in stores do not have enough variation...they all look the same.  
   Agree  Tend to Agree  Tend to Agree  Tend to Agree  
   4      3      2      1      4      3      2      1      4      3      2      1

15. On the whole, I am satisfied with myself.  
   4      3      2      1

16. It is difficult for me to find clothing styles that are suitable for informal everyday wear.  
   4      3      2      1

17. Clothing styles sold in stores seem too youthful.  
   4      3      2      1

18. I have a difficult time with transportation to and from clothing stores.  
   4      3      2      1

19. It is difficult for me to find clothing styles that are suitable for social occasions.  
   4      3      2      1

20. I am a person of worth.  
   4      3      2      1

21. A person's reputation at work is affected by how he/she dresses.  
   4      3      2      1

22. Many purchased clothes do not fit properly.  
   4      3      2      1

23. The waistline in purchased clothing does not fit comfortably on my waistline.  
   4      3      2      1

24. Clothing stores should provide more places to rest.  
   4      3      2      1

25. Clothing styles sold in stores seem unbecoming for my figure.  
   4      3      2      1

26. I have more difficulty in shopping for clothing than I used to.  
   4      3      2      1

27. At times I think that I am no good at all.  
   4      3      2      1
28. Purchased clothing just doesn't fit me the way it used to.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

29. The layouts of clothing stores are often confusing...it is difficult to find what I want.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

30. In general, I find shopping for clothes enjoyable.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

31. Clothing is of concern to me.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

32. I wish that I could have more self-respect for myself.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

33. Often purchased clothes seem too baggy in the top.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

34. The lighting in clothing stores is usually not adequate.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

35. I often influence the types of clothing fashions my friends buy.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

36. I take a positive attitude toward myself.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

37. My purchased clothes usually must be altered in order for them to fit me.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

38. I enjoy browsing for clothes even when I am not out to buy anything.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

39. Certainly, I feel useless at times.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

40. The crotch in purchased pants does not fit properly.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

41. Salesclerks in clothing stores should provide more assistance.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

42. I feel I do not have much to be proud of.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

43. I like to buy most of my clothes in a particular store.  
   Agree  Tend to Agree  Tend to Disagree
   4      3      2      1

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Section C: Please circle the letter beside your annual total expenditure for clothing, accessories (such as shoes), and clothing services (such as custom sewing and dry cleaning).

a) under $199  
b) $200 to $399  
c) $400 to $599  
d) $600 to $799  
e) $800 to $999  
f) $1,000 and above.

Section D:

1. Please circle the letter beside your yearly household income.

   a) under $9,999  
b) $10,000 to $19,999  
c) $20,000 to $29,999  
d) $30,000 to $39,999  
e) $40,000 and above

2. Your age in years: ________

3. Sex:  a) Female  b) Male

4. Marital status: a) Currently Married  
b) Not married at this time

5. Employment: A) Are you a volunteer worker?  a) Yes  b) No  
                          B) Are you employed?  a) Yes  b) No  
                          C) Are you retired?  a) Yes  b) No

6. Please circle the letter that tells the highest amount of education you obtained:

   a) Grade school or less  
b) Some high school or high school graduate  
c) Beyond high school

Thank you.
Appendix B

The Questionnaire for Pilot Test
THE QUESTIONNAIRE FOR PILOT TEST

Body-cathexis

Each item below is related to a part of your body. Beside each item is a scale that ranges from "feel very positive" (5) to "feel very negative" (1). For each item please circle the number which best expresses the way you feel about your body.

Example:

<table>
<thead>
<tr>
<th></th>
<th>Feel very positive</th>
<th>Feel positive</th>
<th>No feelings either way</th>
<th>Feel negative</th>
<th>Feel very negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How do you feel about your _____?

<table>
<thead>
<tr>
<th></th>
<th>very positive</th>
<th>very negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hands</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>2. Eyes</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>3. Height</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>4. Ears</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>5. Voice</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>6. General body performance</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>7. Hair</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>8. Shoulders</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>9. Ankles</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>10. Feet</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>11. General appearance</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>12. Chin</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>13. Mouth</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>14. Face</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>15. Bust</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>16. Skin</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>17. Arms</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>18. Thighs</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>19. Teeth</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>20. Complexion</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>21. Neck</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>22. Abdomen</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>23. Buttocks</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>24. Legs</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>25. Waist</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>26. General muscle tone</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>27. Weight</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>28. Hips</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>

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Self-esteem

Each item below is a statement of belief about yourself. Beside each statement is a scale that ranges from "strongly agree" (5) to "strongly disagree" (1). For each statement please circle the number which best expresses the way you feel about yourself.

Example:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No feelings either way</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. On the whole, I am satisfied with myself.  
   5  4  3  2  1

2. I feel that I have a number of good qualities.  
   5  4  3  2  1

3. I am a person of worth, at least on an equal basis.  
   5  4  3  2  1

4. I take a positive attitude toward myself.  
   5  4  3  2  1

5. I am able to do things as well as most people.  
   5  4  3  2  1

6. At times I think that I am no good at all.  
   5  4  3  2  1

7. Certainly, I feel useless at times.  
   5  4  3  2  1

8. I feel I do not have much to be proud of.  
   5  4  3  2  1

9. I wish that I could have more self-respect for myself.  
   5  4  3  2  1

10. I am inclined to feel that I am a failure.  
    5  4  3  2  1
Clothing behavior

Each item below is a statement of your clothing behavior. Beside each statement is a scale that ranges from "strongly agree" (5) to "strongly disagree" (1). For each statement please circle the number which best expresses your opinion.

Example:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>No feelings either way</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Dressing well is important for advancement of one's career.
   5        4        3        2        1

2. Clothing is valuable to me.
   5        4        3        2        1

3. Wearing proper clothing helps me gain respect.
   5        4        3        2        1

4. Clothing is of concern to me.
   5        4        3        2        1

5. A person's reputation at work is affected by how/she dresses.
   5        4        3        2        1

6. My friends or neighbors regard me as a good source of advice on clothing fashions.
   5        4        3        2        1

7. Others often turn to me for advice on fashion and clothing.
   5        4        3        2        1

8. I often influence the types of clothing fashions my friends buy.
   5        4        3        2        1

9. In general, clothing styles seem unattractive on mature women.
   5        4        3        2        1

10. Clothing styles seem too youthful.
    5        4        3        2        1

11. Clothing styles do not have enough variation...they all look the same.
    5        4        3        2        1

12. Styles seem unbecoming for my figure.
    5        4        3        2        1

13. It is difficult for me to find styles that are suitable for social meetings such as church attendance.
    5        4        3        2        1

14. It is difficult for me to find styles that are suitable for evening or formal wear.
    5        4        3        2        1

15. It is difficult for me to find styles that are suitable for informal everyday wear.
    5        4        3        2        1
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Many purchased clothes do not fit properly.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>17. The waistline in purchased clothing does not fit comfortably on my natural waistline.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>18. I usually must alter purchased clothes in order for them to fit.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>19. Often purchased clothes seem too baggy in the top.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>20. Purchased clothing just doesn't fit me the way it used to.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>21. Often clothing is too binding around my shoulders or arms.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>22. The crotch in pants does not fit properly.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>23. I have a difficult time with transportation to and from clothing stores.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>24. Lighting in clothing stores is usually not adequate.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>25. Clothing stores layouts are often confusing...it is difficult to find what you want.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>26. Salesclerks in clothing stores are usually too aggressive...too pushing.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>27. Clothing stores should provide more places to rest.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>28. Salesclerks in clothing stores should provide more assistance.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>29. I have a more difficult time shopping for clothing than I did when I was younger.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>30. In general, I find shopping enjoyable.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>31. I enjoy browsing even when I am not out to buy anything.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>32. I stop to look at clothes even when I am not planning to buy anything.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>33. I buy my clothes at a particular store as a matter of preference.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>34. I like to buy most of my clothes in a particular store.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>
Clothing expenditure

Please write down your annual clothing expenditure (including accessories such as shoes and clothing services).

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Demographic questions

1. Yearly household income: Please choose one of the following categories as your yearly household income.

   a) under $5,000  b) $5,000 to $9,999  c) $10,000 to $14,999  
   e) $15,000 to $19,999  f) $20,000 to $29,999  
   g) $30,000 to $39,999  h) $40,000 and above

2. Age: ________

3. Gender:  a) Female  b) Male

   d) Separated  e) Never-married

5. Employment:  a) Employed (including part-time)  
   b) Unemployed but volunteer worker  
   c) Unemployed

6. Education:  a) Some grade school  b) Grade school graduate  
   c) Some high school  d) High school graduate  
   e) Some college  f) College graduate

Thank you.
VITA

Name: JinSook Hwang
Date of Birth: October 3, 1965
Place of Birth: Seoul, Korea
Major: Clothing and Textiles
Degree and Date to be Conferred: Master of Science, December 1993

Educational Institutions Attended: Dates: Degree:
Seoul National University 3/84 - 2/88 B.S.
Seoul, Korea

University of Wisconsin 9/91 - 5/92
Madison, Wisconsin

Virginia Tech 9/92 - 12/93 M.S.
Blacksburg, Virginia

Positions Held:

Graduate Research Assistant, Department of Clothing and Textiles, Virginia Tech, 1993.


JinSook Hwang

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