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Adolescents' Clothing Purchase Motivations, Information Sources, and Store Selection Criteria: A Comparison of Male/Female and Impulse/Nonimpulse Shoppers

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The purpose of this study was to examine high school adolescents' clothing shopping frequency, expenditure, purchase motivations, information sources, and store selection criteria and to determine the similarities and differences between male and female as well as impulse and nonimpulse shoppers. A survey design was used to collect the data. One hundred thirty-seven high school students, in 9th to 12th grade, 69 males and 68 females, were recruited. Similarities were found between male and female participants. They spent similar amounts of money on clothing and had similar degrees of conformity, sexual attraction, and recognition motivations. For both genders, friends were the most important clothing information source, and price was the most important criterion for store selection. Significant differences were also found between genders. Female participants shopped significantly more often than males and had higher recreation clothing purchase motivation. Certain information sources, such as friends and magazines/books, had more influence over clothing purchase decisions made by females compared to males. Certain criteria such as product variety/availability and store display carried more weight for females than males when making a store selection. When impulse and nonimpulse shoppers were compared, significant differences were found in all the clothing behaviors examined in the study (i.e., clothing shopping frequency, expenditure, purchase motivations, information sources, store selection criteria). Educational and marketing implications are recommended.

After 16 years of continuous decline from the mid 1970s through the 1980s, the adolescent population, ages 13 to 19, has increased during the 1990s (Zollo, 1995). This segment of the population and its per capita buying power are increasing more rapidly than any other segment (Shim & Koh, 1997). This adolescent age group has lots of money to spend and strong opinions on how to spend it (Zollo, 1995). As most adolescents live in families with dual-income parents or a single parent, they have taken on more family responsibilities such as

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household shopping than adolescents did in the past. Clothing is adolescents' top spending category. Gunter and Furnham (1998) indicated that adolescents spent most of their money on clothes, records, stereo equipment, and travel. Stoneman (1998) also reported that clothing, entertainment, and food were top product categories that attracted adolescent consumers. In 1996, U.S. adolescents spent $36.7 billion on clothing, $23.4 billion on entertainment, $16.7 billion on food, $9.2 billion on personal care, and $6.7 billion on sporting goods.

Surveys of adolescents have revealed them to be sophisticated consumers with a high level of interest in shopping and with an ability to distinguish between what they like and dislike (Gunter & Furnham, 1998). Adolescents like buying "cool" brands that match their self-image and personal needs (Zollo, 1995). According to Sproles (1979), adolescence is a time of refining self-concepts and learning social skills. An individual's identification with peer groups is critical during adolescence. Clothing plays an important role in these developmental processes. Clothing is one of the most expressed symbols of peer identification. Geen (1995) indicated that adolescents are in touch with their culture by wearing symbolically valued articles of clothing, such as brand name athletic shoes or designer jeans. Demanding their own products and searching for their own identity, adolescents from ages 13 to 19 have become an important market segment, especially for clothing products (Evance, Moutinho, & Raaij, 1996).

Gender is an important factor affecting a person's choice of clothing (Bohdanowicz & Clamp, 1994). The fundamental segmentation of the clothing market is based on gender. In recent history, fashion has been emphasized in the female domain. In contemporary society, the gap in fashionability between men and women has narrowed (Sproles, 1979). In the field of clothing and textiles, many researchers have investigated female consumer behavior in relation to clothing, but fewer studies have focused on males or on gender differences. Zollo (1995) reported that between male and female adolescents ages from 13 to 19, a significant difference existed in clothing expenditure. Female adolescents tended to spend more on cosmetics, clothes, and jewelry, whereas males also cared about fashion but spent less of their own money on it, preferring to convince their parents to buy clothes and shoes for them.

Bellenger, Robertson, and Hirschman (1978) indicated that consumers are no longer motivated to any appreciable extent by rational or economic objectives and that consumer spending is often based on

motivations and images provided by advertisements or package designs. As fashion changes so rapidly over time and consumer needs and wants become more diversified, the likelihood of impulse buying increases. People may go window-shopping and decide on impulse to enter a store, view merchandise, and make a purchase. Beatty and Ferrell (1998) defined impulse buying as a sudden and immediate purchase with no preshopping plans either to buy in the specific product category or to fulfill a specific buying task. Rook (1987) indicated that impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. Based on Rook's (1987) definition of impulse buying, Engel, Blackwell, and Minard (1995) suggested that impulse buying is different from the usual unplanned purchase. In impulse buying, compulsive and intense emotions are involved, but in an unplanned purchase, these emotions are not typically involved. Welles (1986) found that 9 out of 10 shoppers occasionally buy on impulse. Bellenger et al.'s (1978) study showed that 27% to 62% of all department store purchases were impulse purchases. Consumers in some studies considered impulse-buying behavior as a sign of wastefulness, immaturity, and lack of behavioral control (Rook & Fisher, 1995; Solnick, Kannenberg, Eckerman, & Waller, 1980). In some studies, on the contrary, consumers felt good about their impulse purchase because an impulse purchase can fulfill their hedonic needs (Hausman, 2000; Rook, 1987). As adolescents live in a highly consumption-oriented society, they have become more aware of new products and brands and spend more hours shopping for themselves than did adolescents of the past (Gunter & Furnham, 1998). The increase of purchasing power and mobility due to modern transportation raises the likelihood of impulse buying.

The purpose of this study was to examine high school adolescents' clothes-buying behavior and the similarities and differences between males and females as well as impulse and nonimpulse shoppers. The clothes-buying behaviors examined in the study were frequency, expenditure, purchase motivations, information sources, and store selection criteria. The results of this study provide information for parents, educators, and clothing marketers to understand male and female adolescents' clothes-buying behavior. Such information helps parents and educators recognize adolescents' perceptions regarding clothing and hence may allow them to provide better guidance for adolescents. It would also help clothing marketers to identify

adolescent consumers' specific needs and desires so as to design products and develop strategies that can satisfy adolescent customers.

LITERATURE REVIEW

Clothing Motivations

Motivation has been a central issue in understanding human behavior and psychology for the past several decades. Motivation is defined as a need that is sufficiently pressing to direct the person to seek satisfaction (Kotler & Armstrong, 1999). Motivations influence the initiation, intensity, and persistence of behavior (Geen, 1995). In the context of consumer behavior, the result of motivations is desire or need for the product (Mullen & Johnson, 1990). Motivations provide the consumer with the reason to buy (Bohdanowicz & Clamp, 1994).

Many researchers have identified reasons that motivate consumers to purchase a clothing product. Protection against the physical, social, and psychological environment was mentioned as one of the motivations to purchase clothing by early researchers (Kwon, 1987; Roach & Eicher, 1973; Sproles, 1979). Clothes are an individual's most immediate environment, acting as a buffer between the biological self and the wider physical and social environment (Roach & Eicher, 1973). Belk and Pollay (1985) identified the important role of clothing in presenting a desired image and lifestyle. Clothing allows consumers to express an identity to others in terms of their symbolic or expressive meanings (Hawkins, Best, & Coney, 1998). Evans (1964) conducted a survey on adolescents' motivations for the wearing of clothing and found that the needs of recognition and conformity were the two most important motivations. Almost 50% of the adolescent responses expressed that the most important motivation for the clothing that they wore was the desire for recognition, and 38% indicated the desire to conform. Saunders, Samli, and Tozier (1973) found that peer group pressure played an important role for adolescent girls as they determined where to shop. They paid particular attention to peer group approval of brands when purchasing coats, blouses, dresses, and scarves for school. Dressing is also a way of presenting the human body, and it inevitably generates some sexual implications (Squire, 1974). Clothing is often intentionally used to stimulate sexual

consciousness and attraction between people (Sproles, 1979). Laver (1969) indicated that people compete with each other on the basis of attractiveness to the opposite sex, and therefore, people often wear arousing clothing to win a mate or keep the interest of their spouse. Recently, Hausman (2000) identified a variety of hedonic needs. In addition to fulfilling the need for a particular product, self-esteem, or social needs, shopping for clothing also satisfies hedonic motivations such as the need for fun, novelty, and variety.

Information Sources

Consumers acquire information to reduce uncertainty and risk in purchasing decisions (Cox & Rich, 1964). The influence on an individual to select a product or store depends on the communication of information from sources to the individual (Rabolt & Drake, 1985). Researchers have used several different ways to categorize information sources. Engel et al. (1995) classified information sources as personal (e.g., friend, mother, salespeople) and impersonal (e.g., mass media, retailers' sales promotions). Cox (1967) categorized information sources as market-dominated sources (e.g., newspaper ads, television/radio commercials, salespeople), neutral sources (e.g., magazines and consumer reports), and personal sources (e.g., family and friends).

Several researchers have conducted studies to examine adolescents' information sources. Moore and Moschis (1978) found that adolescents tended to rely on personal sources for information on products involving high socioeconomic and performance risk, but they rely on media for information on products perceived as low for such risk. A 1961 study reported by Gilkison (1973) showed that both male and female adolescents ranked parents as the most important information source. Since the 1970s, studies consistently indicated that friends have become the most important information source. Moore and Moschis (1978) found that adolescents tend to rely more on friends and less on parents for information as they mature. Koester and May (1985) also found that parental influence on clothing selection decreased with the age of the adolescent, but peer, sibling, and media influences increased with age. A current study by Wilson and MacGillivray (1998) also found consistent results showing that with increasing school grades (i.e., 6th, 9th, 12th), friends' influence on adolescents' clothing choices increased, but parental influence declined. When Wilson and MacGillivray (1998) investigated the

influence of impersonal information sources on adolescents' clothing choice, they found significant differences between male and female adolescents. Females considered magazines a more influential information source than males, whereas males thought that television and celebrities were more influential on clothing choice than did females. When influences were compared among adolescents in the 6th, 9th, and 12th grades, results showed that television had a strong influence on adolescents in the 6th grade (35.1%) but much less influence on them in the 9th and 12th grades (13.2% and 17.7%, respectively). Celebrities had a strong influence on adolescents in the 9th grade (29.0%) but much less influence on them in the 6th and 12th grades (16.2% and 8.8%, respectively).

Store Selection Criteria

Store selection criteria are important attributes that consumers use in deciding where to shop (Dailey, 1978; Scott, 1985). These criteria are the characteristics that appeal to consumers and draw them into the store (Ko, 1995). According to Assael (1995), consumers in each market segment form images of various stores based on their perceptions of the attributes they consider important and will use these criteria to select a store.

Several researchers studied the store selection criteria among different types of retail stores. Schiffman, Dash, and Dillon (1977) studied the criteria on store choice of two competing store types: audio equipment specialty stores and full-line department stores. The authors found that specialty store customers rated the expertise of the salesmen and the assortment of brands and models as most important. Department store customers, on the other hand, were more concerned with store location and warranty policies. Hansen and Deutscher (1977-1978) studied the criteria used in grocery and department store selection. Findings showed that department store customers were more concerned with quality of merchandise, ease of the shopping process, and posttransaction satisfaction, whereas grocery store shoppers were concerned with merchandise mix and cleanliness of the store as well as ease of the shopping process. These results indicate that consumers use different criteria to select different types of stores. A particular attribute that is important to customers in selecting one type of store may be less influential for the consumers choosing another type of store. Retailers need to determine which store attributes are more important to their target customers to meet

customers' expectations. Different stores may need to use different attributes according to customers' criteria to satisfy target customers.

Researchers found that consumers with different shopping orientations have different store selection criteria. For example, Bellenger, Robertson, and Greenberg (1977) found that recreational consumers' store selection criteria were store decoration and product variety and quality. Lumpkin (1985) categorized the participants in his study into three shopping orientation groups: apathetic shoppers, economic shoppers, and active shoppers. Economic shoppers tended to look for high quality and low price, whereas active shoppers tended to look for brand name, store location, shopping ease, and credit availability. No specific store selection criteria were identified in apathetic shoppers. Among the three shopping orientation groups, the apathetic shoppers gave the lowest ratings on almost all the store selection criteria listed in the study. Shim and Kotsiopulos (1992) examined determinants of the importance of store attributes and found that a consumer's shopping orientation was the most important determinant. For example, consumers who were brand or fashion conscious placed importance on the brand name of the store, customer services, or visual image of the store. Shoppers who were convenience/time conscious placed high importance on ease of access. Economic shoppers placed high importance on frequent sale prices, low prices, and excellent return policies.

Studies examining adolescents' store selection criteria were limited. Moore and Moschis (1978) found that price and brand name were perceived as the most important criteria for adolescent consumers. Gunter and Furnham (1998) reported a survey result showing that adolescent consumers tended to shop for their clothes in a wide variety of retail outlets and compared prices and brands before buying.

HYPOTHESES

Based on the purposes of the study, two main hypotheses were generated. Under each main hypothesis, five subhypotheses were included to examine the differences in five areas of clothes-buying behavior.

Main Hypothesis 1: Male and female high school adolescents are significantly different in clothes-buying behavior.

Subhypothesis 1a: Male and female high school adolescents are significantly different in clothes-shopping frequencies.

Subhypothesis 1b: Male and female high school adolescents are significantly different in clothes expenditures.

Subhypothesis 1c: Male and female high school adolescents are significantly different in clothing purchase motivations.

Subhypothesis 1d: Male and female high school adolescents are significantly different in use of personal and impersonal information sources for clothing.

Subhypothesis 1e: Male and female high school adolescents are significantly different in clothing store selection criteria.

Main Hypothesis 2: Impulse and nonimpulse high school adolescent shoppers are significantly different in clothes-buying behavior.

Subhypothesis 2a: Impulse and nonimpulse high school adolescent shoppers are significantly different in clothes-shopping frequency.

Subhypothesis 2b: Impulse and nonimpulse high school adolescent shoppers are significantly different in clothing expenditures.

Subhypothesis 2c: Impulse and nonimpulse high school adolescent shoppers are significantly different in clothing purchase motivations.

Subhypothesis 2d: Impulse and nonimpulse high school adolescent shoppers are significantly different in use of personal and impersonal information sources for clothing.

Subhypothesis 2e: Impulse and nonimpulse high school adolescent shoppers are significantly different in clothing store selection criteria.

METHODS AND DATA ANALYSIS

A survey design was used to collect the data of the study. The data were collected at two high schools located in an urban area formed by two adjacent towns on the East Coast of the United States with a total population of about 60,000. About 10 miles separated these two schools. In these two towns, four department stores, five discount stores, 16 national-chain clothing specialty stores, and about 20 locally owned clothing stores are available for high school adolescents. The teachers who volunteered to help with this study administered the survey. A convenience sample of 137 high school students in 9th to 12th grade, 69 males and 68 females, was recruited. For both male and female participants, the majority were White, ages 17 to 18, and in 11th and 12th grades (see Table 1). The likelihood ratio chi-square tests showed no significant differences between the male and female participants in their age, grade, or race.

TABLE 1: Participants' Age, School Grade, and Race

Demographics	Percentage Male	Percentage Female	χ^2
Age			2.92
14	5.8	1.5	
15	10.1	7.4	
16	13.1	17.6	
17	33.3	33.8	
18	31.9	35.3	
Older than 18	5.8	4.4	
Grade			3.67
9	12.7	4.5	
10	11.1	13.6	
11	33.3	28.9	
12	42.9	53.0	
Race			3.44
White	72.5	85.2	
Black	14.5	7.4	
Hispanic/Asian/			
American Indian/Other	13.0	7.4	

A questionnaire was developed to measure the variables in the study. Some questions were adapted from previous studies, and some were developed by the researchers.

Clothes-shopping frequency. In the first section of the questionnaire, participants' clothes-shopping frequency and monthly clothing expenditures were examined. The clothing expenditure includes the money that adolescents spend on clothing and that their parents spend for them. These two questions were developed by the researchers.

Clothing purchase motivations. Based on past literature (Belk & Pollay, 1985; Evans, 1964; Hausman, 2000; Hawkins et al., 1998; MacGillivray & Wilson, 1997; Saunders et al., 1973; Sproles, 1979; Sproles & Burns, 1994), seven clothing purchase motivations were identified (i.e., recreation, conformity, recognition, self-enhancement, sexual attraction, aesthetic expression, and fashion expression). Twenty statements were developed to measure these seven motivations. Twelve statements were adapted from past studies (Chen-Yu, 1995; Shim & Bickle, 1994; Torien, 1987), and eight were developed by the researchers. Clothing purchase motivation was measured on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The

TABLE 2: **Factor Analysis of Items Used to Measure Impulse Shopping Tendency**

Factor Name and Items	Factor Loading
Impulse Buying Behavior (eigenvalue = 2.76, coefficient alpha = .78)	
I cannot resist buying clothing if I really like it	.80
I buy anything I suddenly feel compelled to buy	.76
I often buy clothes while I am out doing other things	.76
I buy clothing I like without a lot of thinking	.72
I buy things setting by the register at the last minute	.64
Unplanned Buying Behavior (eigenvalue = 1.48, coefficient alpha = .59)	
I do not buy something that I was not planning on buying	.83
I plan what to buy before I go shopping	.80

reliability analysis showed that the coefficient alpha of the 20-item scale was .90.

Impulse buying. The third section included seven statements to measure participants' impulse-buying tendency. Five statements were adapted from the study of Han, Morgan, Kotsiopulos, and Kang-Park (1991), and two were developed by the researchers. Impulse-buying tendency was measured on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The coefficient alpha of the seven-item scale was .70. To group the participants into impulse and nonimpulse shopper groups, principal components factor analysis was first used to examine whether the seven statements intended to measure participants' impulse-buying tendency were appropriate measures. Two statements (i.e., I plan what to buy before I go shopping; I do not buy something that I was not planning on buying) were reverse scored. The criterion of eigenvalue greater than 1.00 was set to determine the number of factors to extract. A factor loading greater than .50 was set to determine the items included in the factor. The results revealed a two-factor solution (see Table 2). The five statements in Factor 1 were labeled Impulse Buying Behavior. These five statements were related to buying behavior when a consumer experienced a sudden and/or powerful urge to purchase something immediately. The coefficient alpha of these five statements was .78. The two statements in Factor 2 were labeled Unplanned Buying Behavior. These two statements addressed whether consumers planned their purchase before visiting stores and whether they only purchased products that they planned

to buy. The coefficient alpha of these two statements was .59. According to Engel et al. (1995), unplanned purchase and impulse purchase are different. In an unplanned purchase, compulsive and intense emotions may not be involved. This study focused on impulse-buying behavior. Because the Factor 2 items did not measure impulse buying, these two statements were eliminated. The average score of the five statements in Factor 1 was used to group the impulse and nonimpulse shoppers. Sixty-three participants (46.7%) who had an average score lower than or equal to 4 (neutral) were grouped as nonimpulse shoppers. Seventy-two participants (53.3%) who had an average score higher than 4 were grouped as impulse shoppers. Slightly more female than male participants were impulse shoppers (female 55.6%, male 44.4%). However, the likelihood ratio chi-square test showed that the difference was not significant. Male and female high school adolescents were not significantly different in impulse-buying behavior.

Information sources. In the fourth section, seven personal and five impersonal information sources were included to examine the influence of information sources on adolescents' clothing purchases. Ten items were adapted from past studies (Chowdhary, 1989; Shim & Kotsiopulos, 1993), and two were developed by the researchers. The influence of information sources was measured on a 7-point scale ranging from 1 = *no influence at all* to 7 = *strong influence*. The coefficient alpha of the 12-item scale was .80.

Store selection criteria. The fifth section included 17 store and product attributes to measure participants' store selection criteria. These items were adapted from past studies (Dotson & Patton, 1992; Eckman, Damhorst, & Kadolph, 1990; Haynes, Pipkin, Black, & Cloud, 1994; Lee, 1997; Marks, 1976; Oates, Shufeldt, & Vaught, 1996). The importance of each store selection criterion was measured on a 7-point scale ranging from 1 = *not important* to 7 = *very important*. The coefficient alpha of the 17-item scale was .86.

Demographics. In the final section, four demographic questions—gender, age, school classification, and race—were included.

To establish the content validity of the questionnaire, one faculty member and one Ph.D. student in clothing and textiles evaluated the questions in the questionnaire against the research objectives. The

questionnaire was then pilot-tested with 14 college students. After further revision, the final questionnaire was pretested with 17 high school adolescents for ease of understanding and the time requirement to complete the questionnaire. The pretest results showed that two questions were difficult for the participants to answer, and therefore these were removed.

RESULTS

Comparison of Males and Females (Hypothesis 1)

Clothes-shopping frequency (Subhypothesis 1a). When male and female participants' clothes-shopping frequencies were compared, the results showed that most females (44.1%) shopped for clothing two to three times a month, 27.9% shopped once a month, and 13.2% shopped once a week. For male participants, 29.0% shopped for clothing two to three times a month, 27.5% two to three times a year, and 26.1% less than once a month. The likelihood ratio chi-square test showed that there was a significant difference between males and females in the frequency of clothing purchase, $\chi^2(5, 137) = 11.79$, $p < .05$. Based on these results, Subhypothesis 1a was accepted. Male and female high school adolescents were significantly different in clothes-shopping frequency. Female adolescents shopped significantly more often than did male adolescents.

Clothing expenditures (Subhypothesis 1b). When monthly clothing expenditures were examined, the result of a *t* test showed no significant difference between male and female participants. Males spent an average of $112.56, and females spent an average of $104.34 per month on clothing. Based on these results, Hypothesis 1b was rejected. Male and female high school adolescents were not significantly different in clothing expenditures.

Clothing purchase motivations (Subhypothesis 1c). Twenty items related to clothing purchase motivations were included in the study. The principal components factor analysis with the Oblimin rotation was used to group the responses. The criterion of eigenvalue greater than 1.00 was used to determine the number of factors to extract. Factor loading greater than .50 was set to determine the items included in

TABLE 3: Factor Analysis of Clothing Purchase Motivations

Factor Name and Items	Factor Loading
Recreation (eigenvalue = 8.01, variance explained = 40.1%, coefficient alpha = .88)	
I enjoy shopping for clothing	.90
Shopping for clothes puts me in a good mood	.84
Shopping enjoyment is important to me when I buy clothes	.81
I consider myself to be fashion conscious	.81
Conformity (eigenvalue = 2.68, variance explained = 13.4%, coefficient alpha = .70)	
I am uncomfortable when my clothes are different from others	.77
I buy clothing similar to what others are wearing	.74
I would not buy the clothes if my good friends told me they did not like them	.72
Sexual Attraction (eigenvalue = 1.65, variance explained = 5.7%, coefficient alpha = .86)	
I buy clothing to draw the attention of the opposite sex	.90
Dressing to appeal to the other gender is important to me	.87
Recognition (eigenvalue = 1.14, variance explained = 5.7%, coefficient alpha = .62)	
I enjoy wearing unusual clothing even though I attract attention	.83
Differentiation from others is important to me	.72

the factor. If the item had a factor loading greater than .50 in more than one factor, it indicated that the item did not clearly belong to one specific factor. Such items were excluded. The results revealed a four-factor solution explaining 67.4% of the total variance. The four factors were labeled Recreation, Conformity, Sexual Attraction, and Recognition (see Table 3). The coefficient alpha of each factor was .88, .70, .86, and .62, respectively. Nine items that had a factor loading greater than .50 in more than one factor were eliminated (see Table 4). For further examinations, the score of each factor was determined by the average score of the items included in each factor.

The result of the Hotelling's Trace of Multivariate Analysis of Variance (MANOVA) test showed that a significant difference existed between male and female participants, $F(4, 127) = 7.39$, $p < .001$ (see Table 5). Based on this result, Hypothesis 1c was accepted. Male and female high school adolescents were significantly different in clothing purchase motivations. The mean scores of purchase motivations showed that sexual attraction was the most important clothing purchase motivation for male participants, followed by recognition. The most important purchase motivation for female participants was

TABLE 4: Nine Eliminated Items in the Motivation Measure

Eliminated Item	Factor Loading in the Four Identified Factors			
	Recreation	Conformity	Sexual Attraction	Recognition
Items developed for the aesthetic expression motivation				
Beauty expression is important to me	.59	.46	.52	.20
I spend time to find the garment looking best on me	.77	.23	.54	.33
I like to be considered outstandingly well dressed	.53	.51	.67	.51
Items developed for the image enhancement motivation				
I buy clothes with well-known logos	.41	.63	.61	.25
I buy clothing to express who I am	.56	.22	.31	.60
Expressing my image is important to me	.55	.13	.43	.72
Items developed for the fashion expression motivation				
I buy clothing to keep up to date on fashion	.62	.53	.60	.33
The current fashion trend is important to me	.68	.62	.55	.34
Items developed for the recognition motivation				
I wear certain clothes that make me feel distinctive	.61	−.24	.33	.63

TABLE 5: Comparison of Clothes-Buying Behavior Between Male and Female Participants

Clothes-Buying Behavior	Mean		F Value
	Male	Female	
Clothing purchase motivations			
MANOVA–Hotelling's Trace test			7.39[a]***
Univarate F tests:			
Recreation	4.16	5.38	26.43 ***
Conformity	3.87	4.16	1.62
Sexual Attraction	4.70	4.72	.01
Recognition	4.22	4.32	.17
Personal information sources			
MANOVA–Hotelling's Trace test			2.39[a]*
Univarate F tests:			
Friend	5.23	5.98	9.67**
Boyfriend/girlfriend	5.05	5.25	.45
Mother	4.05	4.63	3.08
Sibling	3.48	4.02	2.62
Father	2.69	2.31	1.78
Grandparents	2.06	2.06	.00
Salesperson	2.66	2.37	.89
Impersonal information sources			
MANOVA–Hotelling's Trace test			3.01[a]*
Univarate F tests:			
Magazines/books	3.74	4.52	8.01**
Television	4.00	4.51	3.02
Internet	3.24	3.09	.23
Celebrities	3.94	4.15	.47
Observing street wear	4.71	5.02	1.38
Clothing store selection criteria			
MANOVA–Hotelling's Trace test			2.58[a]*
Univarate F tests:			
Store environment/community involvement	3.33	3.27	.10
Store display	3.99	4.70	7.18**
Product variety/availability	4.72	5.22	6.12*
Customer service/store image	4.09	4.31	.93
Price	5.33	5.54	.28

a. F statistics are exact.
*$p < .05$. **$p < .01$. ***$p < .001$.

recreation, followed by sexual attraction. Univarate F tests showed that female participants had significantly higher recreation motivation than male participants, $F(1, 127) = 26.43$, $p < .001$. No significant

differences were found in conformity, sexual attraction, and recognition motivations.

Clothing information sources (Subhypothesis 1d). Seven personal information sources were listed in the questionnaire (see Table 5). The result of the MANOVA test showed a significant difference in personal information sources used by male participants versus those used by female participants, $F(7, 128) = 2.39$, $p < .05$. Although friends were the most important personal information source for both male and female participants, the influence of friends was significantly greater among females than among males, $F(1, 128) = 9.67$, $p < .01$. Except for the influence of friends, univarate F tests showed no significant differences between males and females in six other personal information sources. Five impersonal information sources were included in the study (see Table 5). The result of the MANOVA test showed that a significant difference existed between males and females, $F(5, 133) = 3.01$, $p < .05$. The univariate F tests showed that the difference was in magazines/books, $F(1, 133) = 8.01$, $p < .01$. The influence of magazines and books was significantly greater on females than on males. Otherwise, no significant differences were found between males and females in reliance on four other impersonal sources. According to the MANOVA results, Hypothesis 1d was accepted. Male and female high school adolescents were significantly different in personal and impersonal information sources.

Clothing store selection criteria (Subhypothesis 1e). Seventeen items measuring clothing store selection were included in the study. The principal components factor analysis with the Varimax rotation was used to group the responses. The criterion of eigenvalue greater than 1.00 was used to determine the number of factors to extract. Factor loading greater than .50 was set to determine the items included in the factor. The results revealed a five-factor solution explaining 68.3% of the total variance. The five factors were labeled Store Environment/Facility/Community Involvement, Store Display, Product Variety/Availability, Customer Service/Store Image, and Price (see Table 6). The coefficient alpha of the first four factors was .84, .85, .75, .62, respectively. Only one item was included in Factor 5, and therefore coefficient alpha of Factor 5 was not calculated. The score of each factor was determined by the average score of the items in each factor.

TABLE 6: Factor Analysis of Clothing Store Selection Criteria

Factor Name and Items	Factor Loading
Store Environment/Facility/Community Involvement (eigenvalue = 5.48, variance explained = 32.2%, coefficient alpha = .84)	
Music	.75
Number of fitting rooms	.74
Store community involvement	.72
Restroom	.68
Resting seats	.67
Lighting	.65
Store Display (eigenvalue = 2.51, variance explained = 14.8%, coefficient alpha = .85)	
Product display in the store	.90
Window display	.84
Attractiveness of store layout	.75
Product Variety/Availability (eigenvalue = 1.42, variance explained = 8.4%, coefficient alpha = .75)	
Availability of size	.79
Variety in style	.74
Availability of well-known brands	.63
Variety in product category	.59
Customer Service/Store Image (eigenvalue = 1.12, variance explained = 7.0%, coefficient alpha = .62)	
Salespeople	.83
Ease of return	.62
Store reputation/image	.56
Price (eigenvalue = 1.01, variance explained = 5.9%)	
Price	.85

For both male and female participants, price was the most important store selection criterion. When store selection criteria between male and female participants were compared, the MANOVA test showed a significant difference, $F(5, 118) = 2.58$, $p < .05$ (see Table 5). Univariate F tests showed that female participants considered product variety/availability and store display significantly more important than male participants, $F(1, 118) = 6.32$, $p < .05$; $F(1, 118) = 7.18$, $p < .01$. No significant differences were found in store environment/community involvement, customer service/store image, and price factors. Based on the MANOVA results, Hypothesis 1e was accepted. Male and female high school adolescents were significantly different in clothing store selection criteria.

Examinations of Main Hypothesis 1. Main Hypothesis 1 examined whether male and female high school adolescents are significantly different in clothes-buying behavior. Five subhypotheses were generated to examine whether male and female high school adolescents behaved differently in areas of clothes-shopping frequency, expenditures, purchase motivations, use of information sources, and selection of store. According to the results, Subhypotheses 1a, 1c, 1d, and 1e were accepted, but Subhypothesis 1b was rejected. Therefore, Main Hypothesis 1 was partially accepted. Male and female high school adolescents were significantly different in some clothes-buying behaviors such as frequency, purchase motivations, information sources, and store selection criteria but were similar in clothing expenditures.

Comparison of Impulse and Nonimpulse Shoppers (Hypothesis 2)

Clothes-shopping frequency (Subhypothesis 2a). The likelihood ratio chi-square test showed that there was a significant difference in clothes-shopping frequency between impulse and nonimpulse participants, $\chi^2(5, 135) = 16.12$, $p < .01$. Most impulse participants shopped for clothing two to three times a month (41.7%), followed by less than once a month (25.0%), and then once a week (16.7%). For nonimpulse participants, 30.2% shopped for clothing two to three times a year, another 30.2% shopped two to three times a month, and 28.6% shopped less than once a month. Based on these results, Hypothesis 2a was accepted. Impulse and nonimpulse high school adolescents were significantly different in clothes-shopping frequency. Impulse adolescents shopped significantly more often than nonimpulse adolescents.

Clothing expenditures (Subhypothesis 2b). When impulse and nonimpulse participants' clothing expenditures were compared, a significant difference was found, $t(133) = 2.96$, $p < .01$. Impulse participants spent an average of $137.33 per month on clothing, whereas nonimpulse participants spent $79.57 per month. Based on these results, Hypothesis 2b was accepted. Impulse and nonimpulse high school adolescents were significantly different in clothing expenditures. Impulse adolescents spent significantly more than nonimpulse adolescents.

Clothing purchase motivations (Subhypothesis 2c). The result of the MANOVA test showed that a significant difference existed in clothing purchase motivations between impulse and nonimpulse participants, $F(4, 127) = 9.38$, $p < .001$ (see Table 7). Univarate F tests showed that impulse and nonimpulse participants were significantly different in all four purchase motivations. For impulse participants, mean scores of all four purchase motivations were higher than 4 (*neutral*). All four purchase motivations were important to impulse participants. For nonimpulse participants, only recreation and sexual attraction were indicated as clothing purchase motivations. Based on these results, Hypothesis 2c was accepted. Impulse and nonimpulse high school adolescents were significantly different in clothing purchase motivations.

Clothing information sources (Subhypothesis 2d). When impulse and nonimpulse participants' personal information sources were compared, the result of the MANOVA test showed a significant difference, $F(7, 128) = 5.71$, $p < .001$ (see Table 7). Although the mean scores showed that peers (i.e., friends and boyfriends/girlfriends) were the most important personal information sources for both impulse and nonimpulse participants, the influences were significantly greater on impulse than on nonimpulse participants. When the impersonal information sources were examined, the result of the MANOVA test showed that a significant difference also existed between impulse and nonimpulse participants, $F(5, 131) = 3.70$, $p < .01$. Univariate F tests showed that all five impersonal information sources were significantly more important to impulse than to nonimpulse participants. For impulse participants, all impersonal information sources, except the Internet, were indicated as important information sources. For nonimpulse participants, the only impersonal information source indicated as important (i.e., the mean score was above 4, *neutral*) was observing street wear. Nonimpulse participants did not indicate mass media or celebrities as information sources. Based on these results, Hypothesis 2d was accepted. Impulse and nonimpulse high school adolescents were significantly different in personal and impersonal information sources. Impulse participants overall used more information sources, both personal and impersonal, than did nonimpulse participants.

Clothing store selection criteria (Subhypothesis 2e). When impulse and nonimpulse participants' clothing store selection criteria were

TABLE 7: Comparison of Clothes-Buying Behavior Between Impulse and Nonimpulse Participants

Clothes-Buying Behavior	Mean		F Value
	Impulse	Nonimpulse	
Clothing purchase motivations			
MANOVA–Hotelling's Trace test			9.38[a]***
Univarate *F* tests:			
Recreation	4.27	5.22	14.42***
Confirmation	3.46	4.49	22.94***
Sexual attraction	4.32	5.09	9.49**
Recognition	3.98	4.54	5.72*
Personal information sources			
MANOVA–Hotelling's Trace test			5.71[a]***
Univarate F tests:			
Friend	5.10	6.08	17.08***
Boyfriend/girlfriend	4.66	5.58	10.15**
Mother	4.39	4.39	.09
Sibling	3.69	3.86	.26
Father	2.25	2.76	3.25
Grandparents	1.61	2.53	11.18**
Salesperson	2.13	2.85	5.67*
Impersonal information sources			
MANOVA–Hotelling's Trace test			3.70[a]**
Univarate F tests:			
Magazines/books	3.52	4.61	15.84***
Television	3.68	4.72	13.15***
Internet	2.75	3.48	5.99*
Celebrities	3.49	4.52	12.11**
Observing street wear	4.44	5.21	8.90**
Clothing store selection criteria			
MANOVA–Hotelling's Trace test			4.23[a]*
Univarate F tests:			
Store environment/community involvement	3.02	3.57	5.25*
Store display	4.04	4.61	5.07*
Product variety/availability	4.70	5.21	6.28*
Customer service/store image	3.88	4.50	7.62**
Price	5.68	5.19	3.75

a. *F* statistics are exact.
*$p < .05$. **$p < .01$. ***$p < .001$.

compared, the mean scores showed that product variety/availability was the most important store selection criterion for impulse participants, whereas price was the most important selection criterion for

nonimpulse participants. The MANOVA test showed that a significant difference existed between impulse and nonimpulse participants, $F(5, 116) = 4.23$, $p < .01$ (see Table 7). Except for price, impulse participants had consistently higher mean scores in the other four criteria (i.e., store environment/facility/community involvement, store display, product variety/availability, and customer service/store image) than the nonimpulse participants had. Based on these results, Hypothesis 2e was accepted. Impulse and nonimpulse high school adolescents were significantly different in clothing store selection criteria.

Examinations of Main Hypothesis 2. Main Hypothesis 2 examined whether impulse and nonimpulse high school adolescents are significantly different in clothes-buying behavior. Five subhypotheses were generated to examine whether impulse and nonimpulse high school adolescents behaved differently in areas of clothes-shopping frequency, expenditures, purchase motivations, use of information sources, and selection of store. According to the results, all five subhypotheses were accepted, and therefore, Main Hypothesis 2 was accepted. Impulse and nonimpulse high school adolescents were significantly different in clothes-buying behaviors.

DISCUSSION AND IMPLICATIONS

The purposes of the study were to understand high school adolescents' clothes-buying behavior and to examine the similarities and differences between male and female as well as impulse and nonimpulse shoppers. When male and female participants' clothing expenditures and purchase motivations were compared, the results showed that males and females spent similar amounts of money on clothing and had similar degrees of conformity, sexual attraction, and recognition motivations. These results help parents understand that male adolescents have many clothing goals similar to that of their female contemporaries. For example, they spend a similar amount of money on clothing. Consequently, a clothing budget is equally important to male adolescents. For clothing manufacturers and retailers, these results suggest that for adolescents, the assumption that females spend more money on clothing than males might not be correct. Clothing marketers should conduct more marketing research to further understand the potential of the male adolescent market.

Significant differences were found between male and female participants in shopping frequency. Female participants shopped more often than males. The higher shopping frequency might be better understood by females' primary clothing purchase motivation, recreation. Female participants had higher recreation motivation than males. They enjoyed shopping for clothing, and shopping for clothes put them in a good mood. Hausman (2000) suggested that consumers have a variety of hedonic needs such as the need for fun. This study showed that shopping for clothing can satisfy female adolescents in relation to hedonic needs. An implication of this result is that providing good products alone is not sufficient for high school female adolescent consumers. Enjoyment during shopping should be included in the development of store image. Items that are fun to shop for should be considered in product selection.

Males in the study indicated that their two most important clothing purchase motivations were sexual attraction and recognition. These purchase motivations might explain why males spent a comparable amount of money on clothing, even though they shopped less frequently than females. In Evans's study conducted in 1964, the need of sexual attraction was not related to adolescents' clothing behavior. In the current study, sexual attraction was the most important clothing purchase motivation for males and the second for females. That sexual attraction is so important for adolescents may be due in part to the media controlled by advertising interests. Many clothing advertisements either implicitly or explicitly stress sex appeal as the major benefit (Hawkins et al., 1998). When adolescents are exposed to these advertisements, they may conclude that sexual attraction is the most important attribute to consider when they purchase clothing. Marketers need to recognize that advertising plays an important role in educating consumers, especially children and adolescents, who learn behavior from advertising that can affect their values. Educators in the marketing/merchandising disciplines should recognize their responsibility in developing students' ethical code of conduct in relation to marketing practices. Bloom (1987) indicated that American universities no longer provide knowledge about values. One mission in the field of family and consumer sciences is to increase individuals' well-being and welfare. Educators in this field should consider students' moral development as part of their professional mission. If students have developed their belief in social responsibility in school, their social ethics may guide them to become people who can contribute to the well-being of society. Although many influences affect

adolescents' personal and social development, it remains the prime responsibility of the parents to provide guidance for their children. Garbarino (1995) indicated that U.S. adolescents live, learn, and develop in a socially toxic environment. It is critical for parents to guide their children in their ethical thinking and reasoning not only to help them cope with today's socially toxic environment but also to bring a positive impact to society.

Similar responses between males and females were found in use of personal information sources such as boyfriend/girlfriend and mother. Peers have a strong influence on adolescents' clothing behavior. Consistent with the results of many studies (Koester & May, 1985; Moore & Moschis, 1978; Wilson & MacGillivray, 1998), friends were the most important clothing information source for both genders, although the influence of friends was stronger on females than on males. Moore and Moschis (1978) found that adolescents tended to rely on personal information sources when socioeconomic or performance risk of the product was high. Clothing is a product with high social risk. This study confirms that adolescents rely mostly on personal sources for clothing information. The influence of many impersonal information sources, such as observation of street wear and television, was similar in both male and female participants. For both genders, observing street wear was the most important source. These results suggest that when marketing to adolescents, clothing companies should pay attention to the influences of friends and street wear. Preseason sales may encourage fashion leaders to purchase new items. When adolescents observe friends or fashion leaders wearing the product, they may also want to purchase similar items. Hiring popular young people in clothing retail stores may be another effective strategy to present the products and stimulate adolescent customers' purchase. A significant difference was found in reliance on magazines/books. Consistent with Wilson and MacGillivray's (1998) study, females perceived magazines/books as a more influential source than males. Several teenager and fashion magazines are popular among adolescents. Placing appealing advertisements in such magazines can be an effective way to promote clothing products to female adolescents.

Examination of the store selection criteria used by the participants showed that male and female participants assigned similar weights to the importance of three factors (i.e., store environment/ community involvement, customer service/store image, price). Consistent with Moore and Moschis's (1978) finding, price was the most important

criterion for both genders. Although Gunter and Furnham (1998) indicated that adolescents now have increasing purchasing power, economic consideration is still the most important criterion when adolescents select clothing stores. Significant differences between males and females were found in product variety/availability and store display. Product variety (e.g., variety in style), product availability (e.g., availability of size), and store display (e.g., window display, store layout) were more important to females than to males. That these store selection criteria were more important to females than to males might be explained by noting that females' most important clothing purchase motivation was recreation. Because product variety and store display increase the fun and enjoyment that female adolescents experience while shopping, clothing retailers should seriously consider these store attributes when attempting to capture the female youth market.

Examination of adolescents' impulse-buying behavior indicated that about half of the participants were impulse shoppers and half were nonimpulse shoppers. Although female impulse shoppers outnumbered male impulse shoppers, the difference was not significant. One significant finding showed that impulse shoppers shopped and spent more than nonimpulse shoppers did. Impulse participants spent almost twice the amount of money that nonimpulse participants spent on their clothes. All four purchase motivations (i.e., recreation, conformity, sexual attraction, recognition) were significantly more important to impulse shoppers than to nonimpulse shoppers. These results might explain why impulse shoppers spent more money on clothing than nonimpulse shoppers. For impulse buyers, shopping satisfies a number of needs, not just the acquisition of products. An impulse purchase, considered as irrational and wasteful by parents, may be perceived as a reasonable purchase for adolescent impulse shoppers. Impulse purchases fulfill a number of needs that are important to the adolescent but may not align with parents' economic goals. Parents can help adolescents to recognize the trade-off between rapid, hedonical purchases and thoughtfully planned purchases. Engel et al. (1995) indicated that family communication about purchases and consumer behavior is the key to children's consumer socialization process (i.e., the process by which young people acquire skills, knowledge, and attitudes relevant to becoming consumers in the marketplace). It is important for parents to guide their children in learning how to wisely allocate their limited budget to the products or entertainment that best fulfills their needs. Parent disapproval alone

fails to help adolescents with excessive buying behavior to control their impulses. Practical advice, such as preparing a purchase list before shopping or only carrying enough cash for necessary purchases, needs to be provided.

When information sources were compared between impulse and nonimpulse shoppers, the results showed that all impersonal information sources such as mass media and celebrities were significantly more important to impulse shoppers than to nonimpulse shoppers. These results suggest that television and magazine advertisements and celebrity endorsements are effective ways to promote clothing products to impulse adolescent shoppers. When store selection criteria were examined, product variety/availability was found to be the most important selection criterion for impulse shoppers. To attract impulse shoppers, retailers need to provide a sufficient variety in clothing style and product categories. Retailers need to ensure that all sizes and favorable well-known brands are available for their target customers. The results also showed that store image and window/product displays were more important to impulse shoppers than to nonimpulse shoppers. Developing a strong store image and appealing window displays could be effective ways to capture impulse shoppers' attention and draw them into the store. Attractive package design and product display may also play important roles in inviting impulse shoppers to view merchandise and encouraging them to make final purchase decisions.

The results of this study provide an up-to-date understanding of high school adolescents' clothes-buying behavior. However, as with any study, this research has several limitations. The participants in this study were not randomly selected. This limits the generalizability of the results to all high school adolescent consumers. Succeeding studies are needed to provide consistent evidence for generalization of the findings. This current study was conducted in an urban area. Wilson and MacGillivray (1998) found significant differences between rural and urban adolescents when comparing the influence of information sources on clothing choices. Consequently, the results of this study may not apply to the behavior of adolescents residing in rural areas. The majority of the participants in this study were 11th and 12th graders. Wilson and MacGillivray found significant differences among adolescents in the 6th, 9th, and 12th grades when examining the influence of media on clothing choice. Therefore, the results of this study may not apply to the behavior of high school adolescents in 9th or 10th grade. The study, being a survey design, only examined

significant relationships between independent variables (i.e., male/female, impulse/nonimpulse) and dependent variables (i.e., clothes-shopping frequency, expenditures, purchase motivations, information sources, store selection criteria). No cause-and-effect relationships were determined.

REFERENCES

Assael, H. (1995). *Consumer behavior and marketing action* (5th ed.). Cincinnati, OH: South-Western College Publishing.

Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, *74*(2), 169-191.

Bellenger, D. N., Robertson, D. H., & Greenberg, B. A. (1977). Shopping center patronage motivations. *Journal of Retailing*, *53*(2), 29-38.

Bellenger, D. N., Robertson, D. H., & Hirschman, E. C. (1978). Impulse buying varies by product. *Journal of Advertising Research*, *18*, 15-18.

Belk, R. W., & Pollay, R. W. (1985). Images of ourselves: The good life in twentieth century advertising. *Journal of Consumer Research*, *11*, 887-897.

Bloom, A. (1987). *The closing of the American mind*. New York: Simon & Schuster.

Bohdanowicz, J., & Clamp, L. (1994). *Fashion marketing*. New York: Routledge.

Chen-Yu, H. J. (1995). *Consumer satisfaction/dissatisfaction with the performance of ready-to-wear apparel products*. Unpublished doctoral dissertation, University of Minnesota, St. Paul.

Chowdhary, U. (1989). Fashion information seeking by younger and older consumers. *Clothing and Textiles Research Journal*, *8*(1), 49-55.

Cox, D. F. (1967). *Risk taking and information handling in consumer behavior*. Boston: Harvard University Graduate School of Business.

Cox, D. F., & Rich, S. U. (1964). Perceived risk and consumer decision-making: The case of telephone shopping. *Journal of Marketing Research*, *1*, 32-39.

Dailey, R. M. (1978). Comparison and analysis of store image maintained by customers and noncustomers of a men's clothing specialty shop. *Dissertation Abstracts International*, *39*, 5111.

Dotson, M., & Patton, W., III. (1992). Consumer perceptions of department store service: A lesson for retailers. *The Journal of Service Marketing*, *6*(2), 15-28.

Eckman, M., Damhorst, M. L., & Kadolph, S. J. (1990). Toward a model of the in-store purchase decision process: Consumer use of criteria for evaluating women's apparel. *Clothing and Textiles Research Journal*, *8*(2), 13-22.

Engel, J. F., Blackwell, R. D., & Minard, P. W. (1995). *Consumer behavior* (8th ed.). Chicago: Dryden.

Evance, M. J., Moutinho, L., & Raaij, W. F. V. (1996). *Applied consumer behavior*. New York: Addison-Wesley.

Evans, S. E. (1964). Motivations: Underlying clothing selection and wearing. *Journal of Home Economics*, *56*(10), 739-743.

Garbarino, J. (1995). *Raising children in a socially toxic environment*. San Francisco: Jossey-Bass.

Geen, R. G. (1995). *Human motivation: A social psychological approach*. Belmont, CA: Wadsworth.

Gilkison, P. (1973). Teenagers' perceptions of buying frame of reference: A decade of retrospect. *Journal of Applied Psychology*, *28*, 16-27.

Gunter, B., & Furnham, A. (1998). *Children as consumers*. New York: Routledge.

Han, Y. K., Morgan, G. A., Kotsiopulos, A., & Kang-Park, J. (1991). Impulse buying behavior of apparel purchases. *Clothing and Textiles Research Journal*, *9*(3), 15-21.

Hansen, R. A., & Deutscher, T. (1977-1978, Winter). An empirical investigation of attribute importance in retail store selection. *Journal of Retailing*, *53*(4), 59-72, 95.

Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, *17*(5), 403-419.

Hawkins, D. I., Best, R. J., & Coney, K. A. (1998). *Consumer behavior: Building marketing strategies* (7th ed.). New York: McGraw-Hill.

Haynes, J. L., Pipkin, A. L., Black, W. C., & Cloud, R. M. (1994). Application of a choice sets model to assess patronage decision styles of high involvement consumers. *Clothing and Textiles Research Journal*, *12*(3), 22-32.

Ko, E. J. (1995). *Quick response technology-based attributes on consumer satisfaction/dissatisfaction among female apparel consumers*. Unpublished doctoral dissertation, Virginia Polytechnic and State University, Blacksburg.

Koester, A. W., & May, J. K. (1985). Profiles of adolescents' clothing practices: Purchase, daily selection, and care. *Adolescence*, *29*, 97-113.

Kotler, P., & Armstrong, G. (1999). *Principles of marketing* (8th ed.). Upper Saddle River, NJ: Prentice Hall.

Kwon, Y. (1987). Daily clothing selection: Interrelationships among motivating factors. *Clothing and Textiles Research Journal*, *5*(2), 21-27.

Laver, J. (1969). *Modesty in dress*. Boston: Houghton-Mifflin.

Lee, J. E. (1997). Consumer expectation for service at apparel retail outlets. *Journal of Family and Consumer Science*, *89*, 26-30.

Lumpkin, J. R. (1985). Shopping orientation segmentation of the elderly consumer. *Journal of the Academy of Marketing Science*, *13*(2), 272-289.

MacGillivray, M. S., & Wilson, J. D. (1997). Clothing and appearance among early, middle, and late adolescents. *Clothing and Textiles Research Journal*, *15*(1), 43-49.

Marks, R. B. (1976). Operationalizing the concept of store image. *Journal of Retailing*, *52*, 37-46.

Moore, R. L., & Moschis, G. P. (1978). Teenager's reactions to advertising. *Journal of Advertising*, *7*, 24-30.

Mullen, B., & Johnson, C. (1990). *Psychology of consumer behavior*. Hillsdale, NJ: Lawrence Erlbaum.

Oates, B., Shufeldt, L., & Vaught, B. (1996). A psychographic study of the elderly and retail store attributes. *Journal of Consumer Marketing*, *13*(6), 14-27.

Rabolt, N. J., & Drake, M. F. (1985). Information sources used by women for career dressing decisions. In M. R. Solomon (Ed.), *Psychology of fashion* (pp. 371-385). Lexington, MA: Lexington Books.

Roach, M. E., & Eicher, J. B. (1973). *The visible self: Perceptions on dress*. Engelwood Cliffs, NJ: Prentice Hall.

Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, *14*, 189-199.

Rook, D. W., & Fisher, R. J. (1995). Trait and normative aspects of impulsive buying behavior. *Journal of Consumer Research*, *22*(3), 305-313.

Saunders, J. R., Samli, A. C., & Tozier, E. F. (1973). Congruence and conflict in buying decisions of mothers and daughters. *Journal of Retailing*, *49*, 3-18.

Schiffman, L. G., Dash, J. F., & Dillon, W. R. (1977). The contribution of store-image characteristics to store-type choice. *Journal of Retailing*, *53*(2), 3-13.

Scott, C. D. (1985). An application of environmental psychology to retail store design: The perceptual dimensions of department store entrance. *Dissertation Abstracts International*, *47*, 984.

Shim, S., & Bickle, M. C. (1994). Benefit segments of the female apparel market: Psychographics, shopping orientations, and demographics. *Clothing and Textiles Research Journal*, *12*(2), 1-12.

Shim, S., & Koh, A. (1997). Profiling adolescent consumer decision-making styles: Effects of socialization agents and social-structural variable. *Clothing and Textiles Research Journal*, *15*(1), 50-59.

Shim, S., & Kotsiopulos, A. (1992). Patronage behavior of apparel shopping: Part I. Shopping orientations, store attributes, information sources, and personal characteristics. *Clothing and Textiles Research Journal*, *10*(2), 48-57.

Shim, S., & Kotsiopulos, A. (1993). A typology of apparel shopping orientation segments among female consumers. *Clothing and Textiles Research Journal*, *12*(1), 73-85.

Solnick, J. V., Kannenberg, C. H., Eckerman, D. A., & Waller, M. B. (1980). An experimental analysis of impulsivity and impulse control in humans. *Learning and Motivation*, *11*, 61-77.

Sproles, G. B. (1979). *Fashion: Consumer behavior toward dress*. Minneapolis, MN: Burgess.

Sproles, G. B., & Burns, L. D. (1994). *Changing appearances: Understanding dress in contemporary society*. New York: Fairchild.

Squire, G. (1974). *Dress and society*. New York: Viking.

Stoneman, B. (1998, January). Teen spending keeps climbing. *Forecast*. Retrieved from http://www.demographics.com

Torien, E. S. (1987). *Dimensions of clothing interest: A cross-cultural study*. Unpublished master's thesis, Virginia Polytechnic Institute and State University, Blacksburg.

Welles, G. (1986, May 1). We're in the habit of impulsive buying. *USA Today*, p. 1.

Wilson, J. D., & MacGillivray, M. S. (1998). Self-perceived influences of family, friends, and media on adolescent clothing choice. *Family and Consumer Sciences Research Journal*, *26*(4), 425-443.

Zollo, P. (1995, November). Talking to teens. *American Demographics* Retrieved from http://www.demographics.com