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The Reciprocal Effects of Aging and the Ability to Choose and Wear Clothes of One's Choice

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THE RECIPROCAL EFFECTS OF AGING AND THE ABILITY
TO CHOOSE AND WEAR CLOTHES OF ONE'S CHOICE

Patricia A. Forde, B.S.

An Abstract Presented to the Faculty of the Graduate School of
Lindenwood University in Partial Fulfillment of the Requirements for the
Degree of Master of Arts

1998

ABSTRACT

As men and women age, their ability to successfully perform the typical activities of daily living become limited because of physical disabilities associated with the aging process. The ability to perform one of these activities, dressing oneself without assistance, has been demonstrated to be especially vulnerable to age-related physical disabilities.

The inability to dress oneself has been demonstrated to have a negative impact on the independence, sociability and self-esteem of older adults, and is linked to the reliance on personal care assistance, an extra financial burden for the elderly person or a public expense.

Adaptive clothing designed to accommodate for age-related physical disabilities can help the aging person who experiences difficulty in dressing himself/herself to maintain or regain their independence, sociability and self-esteem. Examples of adaptive clothing and accessories are presented.

As the number of aging persons continues to rise in America, health care policy makers should address the personal, social and economic advantages of reimbursing the costs of adaptive clothing and

accessories for persons whose physical disabilities make it difficult for them to dress themselves.

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Patricia A. Forde, B.S.

A Culminating Project Presented to the Faculty of the Graduate School of
Lindenwood University in Partial Fulfillment of the Requirements for the
Degree of Master of Arts

1998

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DEDICATION

To the lady from Bunduff, her son and his son.

ACKNOWLEDGEMENTS

Getting a Master's degree is hard. Many people have made it easier. I would like to acknowledge them here.

First, I would like to thank the members of the Committee in Charge of my Candidacy: Dr. Marilyn Patterson, Dr. Betty Lemasters and Ms. Mona Resnik, for their useful suggestions and ready support to me. As an emerging professional in the field of Gerontology, I feel honored to have such capable and caring role models.

Second, I would like to acknowledge the many contributions of my first gerontology teacher, my Grandmother, Mrs. Winifred Forde. All my life she encouraged me to study hard, all the while teaching me the most important lessons the easy way: by being Nana.

Third, I would like to thank Michael P. Forde and Michael J. Forde for teaching me more things in their short lives than most people can imagine, even if they lived to an old age. Frankly, I would just as soon not have learned all you taught me about physical disabilities, but every time I pass on what I have learned, I do it for you.

Fourth, I would like to thank my daughters Victoria and Patricia for always being amazed at what their mother could accomplish. Come and catch me, because you can.

Finally, I would like to thank my husband, who has been my guardian, my critic, my muse and my best friend. Why I had to come from

The Bronx to Missouri to meet a guy from Jersey is a mystery to me, but it has made the journey worth taking.

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Chapter I

INTRODUCTION

As men and women age, their ability to choose and wear flattering and comfortable clothes of their choice and within their means becomes increasingly limited because of the physical changes that accompany the aging process. Age-related difficulties in dressing challenge the ability of older persons to function, and thereby live independently, and they contribute to reduced sociability and self-esteem in the elderly.

The availability and use of affordable clothing that compensates for the physical limitations presented by the aging process can be very beneficial to aging persons. Such clothing can promote their increased personal independence and their decreased reliance on outside, often costly, personal care assistance. Affordable adaptive clothing can also help aging persons achieve increases in their sociability and self-esteem.

Demographic trends in the United States demonstrate an unprecedented rate of growth in the aging population, especially among American women. Because of the increasing numbers of elderly persons in America, and their disproportionate reliance on public programs for their support, this issue may have an impact on public social policy. The significance of this trend suggests that health care professionals, designers and marketers of products, and the media need to re-examine

how they can support this population segment to *age successfully* and *age in place*.

For Rowe and Kahn (1998), the concept of *aging successfully* incorporates three important characteristics:

1. avoidance of disease and disability;
2. mental and physical function maintenance; and
3. continuity with life engagement.

Aging in place enables the elderly individual to remain in their home environment. The ability to maintain personal independence by continuing to master the normal activities of daily living, including dressing, will help elders to age successfully and in place.

This paper intends to demonstrate that physical aspects of normal aging can lead to serious difficulties in dressing oneself, and that these difficulties may result in a loss of independence, sociability and self-esteem among the elderly, and may prompt their reliance on personal attendant care. Adaptive clothing designed to mitigate the physical effects of normal aging can provide a cost effective and normalizing remedy to these personal, social and economic problems of aging men and women.

Chapter II

CLOTHING AND WELL BEING

Clothing as an Instrument of Culture

Homo sapiens is the only species in the animal world that voluntarily wears clothes¹. All other species are outfitted by evolution with the skin type, covering and coloration necessary to adapt to their physical environments, avoid predators, signal status and attract mates for reproduction. Yet, human beings wear clothes to do all of these things, and several others.

Indeed, in the Judeo-Christian tradition, the experience of nakedness is presented as the earliest behavioral distinction between humans and animals. The third chapter of the Biblical Book of Genesis tells that, prior to banishing them from the Garden of Eden for eating fruit from the tree of the knowledge of good and evil, "the Lord God made garments of skin for Adam and his wife and clothed them."

Clothing is rarely thought of as one of the basic needs for human survival. Yet, Maslow's (1954) hierarchy of needs recognizes clothing, along with food and shelter, as one of the basic needs to sustain life itself;

¹ While some animals are trained and rewarded for wearing clothes, e.g., a dancing circus elephant in an oversize tutu, or forced to wear clothes, like a pampered Westie in a cable knit sweater, these animals would neither select nor wear such outfits without human persistence.

needs which, until they are met, deflect motivation for a person to move on to the next level of the hierarchy of needs.

Clothing was initially meant to protect our bodies from the elements of nature including rain, snow, cold and sun. Later, clothing adaptations such as body armor became a means of protecting the body from aggressive threats, while other garments such as shoes enhanced body functioning. Over time, this basic need for protection from the elements evolved into a medium for elaborate representation of cultural, social and personal preferences.

In addition to being born without the clothes they need to protect themselves from the elements and attackers, members of the species *Homo sapiens* are born without something else. According to Geertz (1973), humans are outfitted at birth with few genetic rules and signals that direct their adaptive behavior. By contrast, lower animals are outfitted at birth with many more genetic rules and signals.

Lower animals are born with such genetic information in the form of instincts; *Homo sapiens* is not. Humans are born functionally incomplete, outfitted only with genetically determined general response capacities. Although these built-in general response capacities make possible behaviors that can be dramatically more flexible, complex and effective than the range of behaviors in lower animals, they leave human behavior less precisely and predictably determined. Without regulation, human behavior would be random, shapeless and meaningless.

To compensate for their lack of genetic sources of information for controlling behavior, *Homo sapiens* has developed as a social and public creature. And this species has invented culture as a non-genetic control mechanism used by human social and public networks to moderate human behavior, at least partially in each of the three functional areas of culture: orientation, communication and self-control (Geertz, 1973).

Clothing as a Medium for Orientation and Control

Among humans, clothing has long been a primary device for self- and other-orientation. The way a person dresses is the most visible statement he or she can make about himself or herself and who he or she considers himself or herself to be.

Clothing styles and materials help individuals identify themselves as a member of a nation, ethnic group, social class, profession or group. Among the university educated, for example, robes, headgear and hoods distinguish among graduates of different universities and disciplines across all universities. They also differentiate the level of academic achievement across all universities and disciplines as well as the overall education tradition of the institution across universities, disciplines and levels of achievement.

A common uniform and accessories distinguishes among several professions. Often, clothing prerogatives earned by a group are very difficult to take away. For example, in the early 1970s, the senior administrators at a prominent U. S. Naval Hospital, all of whom were

physicians, attempted to limit the number and types of health-related professionals who were allowed to wear the standard long, white starched lab-type coat typically worn by physicians over their shirt, tie and trousers. Different specialties were assigned different colored coats, with white reserved for the physicians.

The staff psychologists were required to trade their starched white cotton coats for blue ones. In a remarkably insubordinate manner, the psychologists refused to cooperate with the orders, primarily because the staff barbers assigned to the same building wore similar, although short polyester, blue coats. The officer psychologists thought they were being publicly diminished to the level of enlisted barbers. Eventually the entire initiative was scrapped (Ahr, 1998).

National, racial and ethnic groupings and religious sects distinguish themselves on the basis of clothing differences. Within these groupings, the choice of attire of children, adults and the elderly, as well as of women and men are frequently prescribed and limited.

Whether the pinstripes of the New York *Yankees*, or the war stripes of a native warrior, common clothing and accessories perform one very important function: facilitating the easy and early recognition of a member of the same tribe, clan, team or group. This recognition helps assure a set of common basic values among members, and quickly identifies friends from foes in combat, whether a World War or a World Series.

Just as individuals may have numerous social identities that make up the personalities, each of these identities may have a different style or look. For example, a business executive who coaches his son's wrestling team has two very different clothing looks at work and on the mats.

Clothing as a Means of Communication

Clothing has also served as a vehicle for cultural communication for centuries. Dress has been a primary signal of social status and personal worth in aristocratic societies. In the United States, where there was no aristocracy, customs of dress were copied from abroad. As early as the 1820's, magazines such as *Godey's Lady's Book* (as cited in Roach & Eicher, 1973) made recommendations for establishing etiquette and dress which modeled the European standards.

Following the Civil War, there emerged a *nouveau riche* who were influenced by many popular manuals on ways to establish oneself as a socially proper person. These manuals described a code for appropriate dress and etiquette (Roach & Eicher, 1973).

By 1876 there emerged in America a cultural struggle between emulating European style versus developing an indigenous style. Americans were becoming self-conscious about their dress and manners as they compared themselves unfavorably to the French and English,

In 1920, Emily Post wrote,

If you would like to dress like a gentlemen, you must do one of two things, either study the subject of a gentleman's wardrobe until you are competent to pick out good suits from freaks, or buy

only English ones. It is not Anglomania, but plain common sense to admit that, just as *Rue de la Paix* in Paris is the fountainhead of fashions for women, Bond Street in London is the home of irreproachable clothes for men. (Roach & Eicher, 1973, p. 22).

However, later in the post-World War I period, the code of dress became more relaxed and focused more on the masses than on the well-to-do. The Women's Dress Reform Movement, an arm of the Women's Rights Movement made tremendous advances in women's clothing with the introduction of trousers for women. In the past, many of the *dos and don'ts* suggested for dress were stated as absolutes that could not be challenged, rather than as the social conventions they were. (Roach & Eicher, 1973).

Clothing guides in circulation today are more prescriptive in nature. In addition, they focus more on facilitating social relations and personal satisfaction than on emulating foreign styles of dress (Roach & Eicher, 1973).

Dress codes, whether written and formal or unwritten and informal, also help control behaviors that have been deemed socially inappropriate. Clothing may also reflect appropriateness to a social occasion. For example, a reasonable person would not wear pajamas to church, nor would it be acceptable to wear a bathing suit to a funeral. A gentleman wearing a sport coat to a *black tie* affair would be considered underdressed and in certain social situations not permitted to participate in the affair.

While cultural attitudes and standards change, they continue to shape the qualities of clothing that are desirable. As individuals adhere to the cultural dress standards they are, in effect, seeking social acceptance and approval, whether or not they are consciously aware of it. When a person is dressed appropriately, he or she feels comfortable and accepted by his or her contemporaries.

Clothing as a Source of Self-Esteem

Numerous studies (Bader, 1963; Liskey-Fitzwater, Moore, & Gurel, 1993; Shin & Bickle, 1994), document that clothing influences self-esteem for the elderly. As a person becomes older, appearance may become more of a liability than an asset. Clothing selection can enhance both appearance and self-esteem. For Chowdhary (1988), clothing is a form of non-verbal communication that boosts self-esteem. Self-worth and self-respect are important needs of older individuals. Clothing promotes appearance and a sense of well being and accomplishment (Bader, 1963 as cited in Chowdhary, 1988).

One of the important counterparts of the role of selecting and wearing clothing as a form of self-expression, is the impact of clothes on feelings of general well-being. Hogge and Baer (1986), cite Hoffman's research that,

Clothing for older women is an important source of ego support and enhancement of the self-image as well as the basis for social acceptability and expression of personality. As women age and their figures change, they become more interested in their

appearance, and therefore, the clothing they wear may be more important than in their younger years (p. 334).

Sontag (1985) states that clothing can provide both psychological comfort and social comfort. Psychological comfort entails,

...a mental state of psychological well-being expressive of satisfaction with the desired affective states, such as femininity, sophistication, or having fun. Psychological comfort can also be derived from a sense of being dressed in a manner congruent with or expressive of one's self-concept. Enhancement of self vis-à-vis aesthetic characteristics of clothing also affects psychological comfort (p. 10)

She describes social comfort as:

...a mental state of social well-being expressive of appropriateness of one's clothing to the occasion of wear, satisfaction with the impression made on others or with the degree of desired conformity of dress to that of one's peers. Dress may also serve to attract oneself to others. Most people at some time in their lives have experienced social discomfort as a result of over-dressing or under-dressing for an occasion (p. 10).

For Sontag,

Although a particular clothing attribute may be associated primarily with one comfort dimension, it may have some effect on the other comfort dimensions. For example, tactile properties of garments may be most directly associated with physical comfort. But they may have some effect on psychological and social comfort. A person may choose a soft garment primarily because of its feel against the skin. But the garment may also be chosen to enhance a particular mood (psychological comfort) and in turn give a desired impression to others (social comfort) (pp. 10 & 11).

Physical appearance, including clothing, is often used as a basis for forming impressions of other people. By presenting ourselves as well groomed in appropriate clothing we send a message that we care about how others perceive us.

Human beings select clothing to express themselves and to recognize their membership in a particular social group or culture. Acceptance by the social group provides a feeling of belonging; the accompanying sense of approval enhances self-esteem.

Events that raise self-esteem have a tendency to emphasize the achievement of social belongingness. Self-esteem is linked to satisfactory interaction with others. The loss of self-esteem is associated with rejection, exclusion, ostracism or other failures that satisfy the need to belong (Baumeister, Dori & Hastings, 1998).

A person who is unable to connect with others loses self-esteem. Persons with high self-esteem have a sense that other people want to be associated with them. In contrast, a person with low self-esteem has lower confidence in their social-self appeal.

Leary and his colleagues (Leary & Downs, 1995; Leary, Haupt, Strausser, & Chokel, in press; Leary Schreindorfer, & Haupt, 1995a; Leary, Tambor, Terdal, & Downs, 1995b) have espoused an alternate theory of self-esteem. These authors describe self-esteem as a sociometer, or a measure of a person's connectedness.

Leary and his colleagues believe that people have a deeply rooted need to develop and maintain a certain number of social connections. To fulfill this innate need, individuals cultivate traits like competence and likability in order to make themselves more appealing to others. Self-

esteem is the meter or the device that tells them how well they are fulfilling this need.

For example, on occasion one woman will compliment another woman about the outfit the other is wearing. The woman receiving the compliment, typically smiles and thanks the person paying her a compliment. The woman who received the compliment feels accepted; her self-esteem is lifted because she knows her clothing is socially acceptable. If the clothing a person wears is inappropriate to the social or cultural setting which he or she is in, that person tends to feel uncomfortable or not accepted and their feelings of self-esteem may decline.

Baumeister et al. (1998) posit that self-esteem is a personality trait that is resistant to change. Elderly persons go through more emotional and social changes than any other group. Their experience of loss of loved ones, compounded by the loss of control, physical and cognitive function can be emotionally debilitating and ultimately effect self-esteem in a negative way. Major events that alter an individual's interpersonal status may be one of the few things that can bring about personality trait changes such as self-esteem (Baumeister et al., 1998).

Choosing clothing gives people a sense of control over their bodies and external selves. The feeling of personal control raises self-esteem and that events that decrease self-esteem are perceived to be outside a person's ability to control that particular situation (Baumeister et al., 1998).

Clothing can also negatively impact self esteem if there is a negative stereotype attached to the type of clothing, the person wearing the clothes, or both.

The Impact of Aging

One out of every five people in the United States is age 55 or older. According to Butler, Lewis and Sunderland (1998) in 1995, the United States had approximately 33.5 million people age 65 and older, representing 13% of the population. These persons are distributed by age groupings as follows:

65-74 years old:	18.8 million
75-84 years old:	11.1 million
85 + years old:	1.3 million
90 + years old:	1.2 million

Of the 50 million Americans aged 55 and older, three fifths, or 30 million are women. This segment of the population is expected to double by the year 2030, reaching 101 million persons. The increased prevalence of persons age 55 and over is due primarily to the expectation that they will live longer than their counterparts lived in past generations, reaching a life expectancy of 79 years old in 2030, as compared with 75 in 1995.

Rowe and Kahn (1998) discuss the remarkable longevity phenomenon that is taking place today, as follows:

It is estimated that in the forty-five hundred years from the Bronze Age to the year 1900, life expectancy increased twenty-seven years, and in the short period of 1900 to 1990 it increased at least that much. The changes have been so dramatic that it is currently

estimated that of all the human beings who have ever lived to be sixty-five years or older, half are currently alive (p. 3). ...Life expectancy at birth in the United States increased from forty-seven years in 1900 to approximately seventy-six today (p. 4).

According to the *compression of morbidity theory* (Rowe & Kahn, 1998) the elderly in America will continue their patterns of prolonged and active life and delayed disability. One example of the long term expansion of the ranks of the elderly is the finding that the 75+ and 85+ age groups are the fastest growing age segments in the country. Further, since 1980 the number of centenarians in America has grown from 15,000 to approximately 53,000, 83% of whom are women (Butler et al., 1998).

Most elderly Americans live in the community, not in institutions. In 1994, 30% of older Americans lived by themselves, 55% with spouses, 12% lived with children or other relatives, and 2% with non-relatives (Butler et al., 1998).

At any given time, only 5% of the aging population live in an institutional setting. Over 40% of nursing home residents are age 85 and older, and 75% are at least age 75.

The annual per capita expenditure for the health care of older persons in 1987 was \$5,360, which was 4 times higher than expenditures on the average person under 65 years old (\$1,286). The average annual health care expenditure for those 85 and older was \$9,178. Eighty to ninety percent of home care of sick or frail elderly is provided by families, and 70 to 80% of that family care is provided by women (Butler et al., 1998).

The Physical Effects of Aging

There are many physiological changes that occur during the aging process. For example, hair begins to lose color and turn gray, skin loses elasticity and begins to wrinkle and the shapes of our bodies begin to change.

Woodson and Horridge (1990) and Goldsberry, Shim and Reich (1996) point out that aging brings about many common changes in the body. Stature is decreased because of changes in the spine and gradual bone loss resulting from osteoporosis. This decrease in stature may be accompanied by an increase in girth measurements, particularly in the waistline, stomach and hips, and may come about without an increase in weight.

Research conducted in the early 1940s defined the typical physical measurements of over 1,400 women. These measurements, referred to as PS 42-70, were used to set a standard that many clothing manufacturers still use today for sizing garments (Woodson & Horridge, 1990).

In 1984, Patterson and Warden reviewed the PS 42-70 data on women age 65+ in the original sizing studies of 1941. They documented that of the 33 measurements compared, 25 were significantly different in the older women age 65+. Specifically, they found that the average body weight and most of the horizontal measurements, which include bust, waist, abdominal extension and hips were significantly larger for the elderly women (cited in Woodson & Horridge, 1990). These findings are

in agreement with other Goldsberry et al., 1996; Hoffman, 1970; and Brunn, 1983), which concluded that standard pattern sizing for elderly women would not meet their changing body shape needs.

Another significant sizing study for older women was conducted under the auspices of Cooperative Extension Specialists and Clothing and Textile faculty at Land Grant Universities. This study, which involved a total of 6,652 subjects, documented significant differences between the current body measurements of women 55 years and older, and the body measurements of the PS 42-70 data. Of the 45 body measurements compared, 27 measurements tended to be greater than those of the PS 42-70 standard. There were 12 measurements that were greater or less than the PS 42-70 data. The remaining 6 measurements were less than the PS 42-70 data (Goldsberry et al., 1996).

The Land Grant research findings also concluded that regardless of body type, measurements in the torso, bust-height, sitting spread, waist, hip, back-width, chest-width, and hip-arc tended to measure greater for the current sample of women age 55 and older.

Some countries have recognized these physiological changes in older females by setting standardized size specifications for the older population. For example, the Swedish Institute for Textile Research has developed a sizing system for females 65 years and older, and use the same sizing but place the letter "E" after the size, e.g., size 10 E. The new specifications use the same bust size, but the measurements for the

new "E" sizing, reflecting standard physical changes in older women, are as follows:

1. hip measurement is two centimeters larger;
2. waist measurement is 6 centimeters larger;
3. inseam is one centimeter less;
4. center back length measures 2.2 centimeters longer for the rounding of the back; and
5. crotch seamline from the front to the back measures 3.5 centimeters greater (Goldsberry et al., 1996).

West Germany and Japan have also adopted new sizing for the elderly population. These adaptations suggest that women 65+ have fitting problems based on standard size specifications, which do not take into consideration the physical aging process (Goldsberry et al., 1996).

The Effects of Age-Related Physical Changes

Most people do not fear growing old as much as they fear becoming dependent due to chronically illness or frailty. The vitality of older people, their ability to remain functionally independent, or minimally dependent, is a fundamental characteristic that determines their quality of life. The number of diseases an individual has is not as important as the impact that these diseases have on a person's ability to function (Enders, 1995).

As people age, the likelihood increases that they will develop a disability. According to Fried and Guralnik (1997), functional status declines rapidly in later years, and

the major underlying causes of physical disability are chronic diseases, including both acute events, such as hip fracture and

stroke and slowly progressive diseases such as arthritis and heart disease.

These authors (Fried & Guralnik, 1997), have identified the chronic diseases associated with the development of a physical disability in older adults to be the following:

1. Arthritis
2. Heart disease
3. Stroke
4. Knee osteoarthritis
5. Osteoporosis, falls and hip fracture
6. Diabetes, amputees, neuropathy
7. Myocardial infarction
8. Angina
9. Congestive heart failure
10. Claudication
11. Chronic obstructive pulmonary disease
12. Visual impairment
13. Depression and
14. Cognitive impairment

Rowe and Kahn (1998) concur that,

The most common ailments in today's elderly include the following: arthritis (which affects nearly half of all old people), hypertension and heart disease (which affects nearly a third), diabetes (11 percent), and disorders which influence communication such as hearing impairment (32 percent), cataracts (17 percent), and other forms of visual impairments including macular degeneration (9 percent) (p. 13).

The onset of a disability may be a slow and progressive set of conditions resulting from a chronic disease or simply the physiological changes that come with the aging process. Physical disability and weakness may be associated with a decline in the general condition, physical and emotional constitutional status, and age-related changes resulting in physical frailty. Changes in the physical constitution of an

elderly person may be exemplified by muscular weakness due to atrophy, balance and gait changes which may result in a history of falling. These are significant risk factors for the onset of a disability.

Fried and Guralnik (1990), summarize the extent to which numerous diseases cause disabilities. The studies they reviewed found that:

1. arthritis accounted for 34% of physical disability;
2. stroke, visual impairment, heart disease, and dementia together accounted for 50%; and
3. peripheral vascular disease, lung disease, depression, diabetes, hearing impairment and hypertension accounted for 15%.

An arthritis study conducted by Reich and Otten (1991), found that the parts of the body most affected by arthritis included fingers (70%), hands (64%), knees (62%), shoulders (54%), and wrists (53%). These difficulties are not mutually exclusive and often occur simultaneously. Ultimately the limitations created by arthritis effect activities of daily living.

In addition to chronic disabilities, there are other physical concerns described by Pirkl (1995) that detract from a person's ability to function. The lenses of one's eyes lose transparency and become more yellow making it difficult to perceive greens and blues and closely related colors. This change could make reading packaging or care label information difficult.

Skin becomes thinner, decreasing the number of receptors and causing their size and distribution to become irregular. Receptor loss

affects the ability to distinguish between hot and cold, as well as sensitivity to pressure and touch. Manual dexterity loss affects one's ability to use certain products that require grasping, gripping, twisting, turning, walking, bending, sitting, climbing and reaching.

Older persons with disabilities have to overcome physical, psychological and social obstacles, some of which are permanent, while others may be temporary with proper rehabilitation. The most severe disabilities result in the use of wheelchairs and/or walkers.

Other disabilities may affect a person's fine motor skills, while diseases like osteoporosis weaken the skeletal structure, and dementia may diminish cognitive ability. Incontinence presents another set of obstacles. The psychological effects of age-related loss of functioning presents dramatic compromises in social activities, role definition, self-esteem and self-identity.

Chapter III

CLOTHING AND THE AGING PERSON

Clothing Preferences of the Elderly Person

In 1920 Emily Post wrote,

The French, whose taste in dress is so far in advance of our own, say that ladies who are *cinquante ans sonnes* (on the wrong side of fifty), should neither wear gay colours, nor dress of slight materials, flowers, feathers, or much jewelry: that they should cover their hair, wear high dresses, and long sleeves (Roach & Eicher, 1973, p. 22).

Many older women still dress according to this standard. The basis for the clothing preferences of older women has been the focus of studies and discussions in various disciplines on the social psychology of aging. Much of the research in this area focuses on the message our youth-oriented society sends through the media that youth and attractiveness are most desirable qualities. Lennon (1997) suggests that thinness and youth are accepted components of a cultural idea of attractiveness. Therefore, women often see aging as a negative experience and regard positively valued age-related characteristics such as wisdom as having no value for them (Jackson & O'Neal, 1994).

These stereotypes have been substantiated through the participant-observer research of Moore (1985). Moore studied many issues about appearance and first impressions of the elderly. Over a three-year period she disguised herself as an elderly woman to find out how people treat

elderly persons and to find out how it felt to be old. This participant-observer research approach provides important information on how the elderly are treated by different population segments, including aged contemporaries (Moore, 1985).

According to Moore, the primary challenge an elderly person must overcome during a first impression or meeting is discrimination often associated with *ageism*. Generally, *ageists* perceive older persons as being weak, fragile, burdensome and without any value to society.

To test this, Moore went into a business supply store on two occasions, once dressed and disguised as an elderly woman, the second as herself, a young and attractive professional. Moore's behavior and actions were identical during each of her two visits, but the reactions of the same store clerk were very different.

When she dressed as an old woman, Moore felt that the clerk treated her shabbily, as though she were invisible. When she asked for help, he was rude and condescending. However, when she dressed as a younger woman, the same clerk was quite friendly and helpful. This example was a powerful statement about how the elderly are often perceived and treated.

The particular clothing items that an elderly person wears also have a powerful and predictable impact on how the elderly person is treated by others on their first encounter (Moore, 1985). According to Moore, an elderly woman wearing a fur coat is seen as having more power, and

commanding more respect and consideration because of what is perceived as her social status, than another older woman walking down the street in a cloth coat.

Moore's findings lead her to believe that wealth negates age. The woman in the cloth coat is perceived as being more vulnerable and easily taken advantage of by comparison. Older women are often perceived as having lost power. To be old and poor is a combination which she believes renders a person as being invisible to polite society.

Prevailing attitudes such as these help explain why, at the first signs of aging, many women try to hold onto a youthful image through the use of cosmetics, girdles, control top panty hose, and plastic surgery.

Jackson and O'Neal (1994) analyzed 29 research studies of aging and appearance-related behaviors. In order to be included in their meta-analysis, the authors required that all studies deal with two components:

1. respondents' perceptions of their aging, including findings related to body image, self-image, attractiveness, femininity; and changes in face, figure, and skeletal structure; and
2. appearance-related behavior change that took place as a result of the respondents' perceptions of their aging covering the broad category of dress/adornment/appearance (p. 10).

Elderly women in the studies recognized some of the physical signs of aging in their own bodies and used "appearance management" activities to ameliorate the effects of growing old. Gradual and normal changes in the body lead to selecting clothing styles that were more flattering to the individual. Other findings included:

1. perception of changes in body structure and physical impairment increased choices of apparel that provide comfort and other self-help features (p. 15);
2. attitudes about clothing, indicating the importance of appearance to the aging individual, were most significantly related to attempts to achieve the most flattering fit in apparel; and
3. alterations of ready-to-wear and custom tailoring were used to achieve good fit.

This research suggests that perceptions of aging can have a direct impact on appearance-related behaviors and that age and physical condition can affect this relationship.

These findings also indicate that there are three very distinct elderly female customer types. The first type of customer perceives that she has a significant physical disability and prefers clothing that provides comfort and self-help features. The second type of customer believes that her body has undergone undesirable physical changes and is concerned to find clothing styles that will minimize the visual effect of these changes. The third type of customer changes her attitudes toward clothing and fashion as she ages. This group prefers to have alterations of ready-to-wear or custom-tailored designs (Jackson & O'Neal, 1994).

A study by Spruiell & Jernigan (1982), describes many of the clothing preferences of women age 65 and older. The categories evaluated consisted of color, fabric design, skirt styles, necklines, collars and sleeve styles. In this study, colors were ranked as follows; blue was by far the most favored followed by pink. These colors are typically the

most flattering for women with gray/white hair. Blue and pink were followed in preference by red, navy, white, rose and green.

The experience of *Forde's Functional Fashions*, a manufacturer and distributor of adaptive clothing for disabled and other physically challenged persons, validates that blue and pink are favored by the elderly, followed by rose which is also flattering to the skin tone of the elderly. These three colors are preferred in tops and dresses of an older person. White is primarily used for knit or woven shirtings. Black and navy are more predominant bottom colors in skirts and slacks.

Spruiell & Jernigan (1982) state that although red and rose have a tendency to overwhelm the person, they are colors that evoke feelings of excitement, activity, and cheerfulness. These tend to be colors worn by older women who chose these colors when they were in their fifties.

Next, Spruiell and Jeringan (1982) evaluated fabric design. Most older women preferred solid colors followed by florals, prints, stripes, dots, and plaids. The A-line silhouette was the most preferred skirt preference, followed by straight, gored, yoke, pleated, single pleat front and gathered.

In the category of necklines, Spruiell and Jernigan (1982) found that older women ranked V-necks first, followed in preference by jewel, cardigan, scoop, square, u-neck, boat and cowl neck. Collar styles, in order of preference, were convertible collars, shawl, tie, mandarin, low round, peter pan, chelsea, high round, tailored and puritan.

Sleeve length is a very important consideration because many older women like to hide the upper arm. Long sleeves with cuffs was the favorite followed by $\frac{3}{4}$ length, short, long, raglan, sleeveless, and cap (Spruiell and Jernigan, 1982).

Another study (Bartley & Warden, 1962) agreed with many of the preferences of the Spruiell & Jernigan study and added that a front opening to the waistline with an underarm placket, shirt dresses, jacket and two piece dresses were a universal preference.

Alterations are a key component to successful clothing suppliers. Older women's satisfaction with ready-to-wear fit is very low, especially with pants. Sometimes these alterations are very simple, like shortening slacks. One study indicated out of 6,081 subjects, 77% indicated that fitting adjustments were a necessity (Goldberry, et al., 1996).

Garments that are too long are a significant problem for many elderly women. One study based on a "yes" or "no" response regarding length showed respondents difficulty as follows:

- 73% had length problems with pants
- 65% had problems with dress length
- 65% had problems with sleeve length

Older women prefer one piece dresses/shifts without a defined waist, front opening garments, larger armholes, and longer sleeves (Goldsberry et al., 1996).

Advancing age does not significantly affect apparel expenditures. (Jackson, 1992). Numerous studies have documented that clothing plays

a significant role in social interaction, personal acceptance, and perceived sociability and that older people exhibit values and needs similar to other age groups. Some believe that women demonstrate a greater interest in clothing needs as they age, because they are even more concerned about their appearance (Goldsberry et al., 1996).

In their clothing studies, Darden & Roper (1987) and Hogge, Baer & Kang-Park (1988) found that older men experienced many of the same clothing-related difficulties that elderly women had.

Activities of Daily Living

A person's ability to function independently in his/her environment is measured by what is known as activities of daily living (ADLs) and instrumental activities of daily living (IADLs).

According to Rodgers and Miller (1997), ADLs are the every day tasks a person performs necessary to maintain personal care. The ability to perform these activities without assistance is how independence is measured. These activities are:

1. bathing;
2. eating;
3. dressing;
4. transferring; and
5. toileting.

Branch and Hoenig (1997) add to this list of ADLs, "going to the toilet room as well as cleaning and refastening clothes afterwards, ...continence."

Branch and Hoenig (1997) discuss five ADL scales, of which they consider the Katz Index to be most appropriate for assessing frail older adults. These scales are:

1. The Katz Index of ADL;
2. The PULSES Profile, the Kenney Self-Care Evaluation, and the Functional Status Rating Scale;
3. The Barthel Index;
4. The Physical Self-Maintenance Scale; and
5. The Medical Outcomes Study Physical Functioning Measure .

Objectives of the ADL assessment are to:

1. determine the current level of functional health at each interview;
2. assess changes in the level of functional health from one interview to the next;
3. estimate the current level of consumption of help and the financial resources used resulting from functional limitations in health;
4. assess the level of change in the consumption of help and financial resources from one interview to the next;
5. determine the need for a change in housing status and the consumption of help and other resources (Rodgers & Miller, 1997).

ADL impairment is one of the most important predictors of a person's need to be placed in a nursing home. Furthermore, according to Oxman and Hull (1997), ADL impairment is also used as a predictor of depression.

Instrumental Activities of Daily Living.

Rodgers and Miller (1997) document that IADLs were developed to measure more complex activities that maintain independent living in the community. Furthermore, IADLs are used to see how an individual adapts to their environment. These activities include:

1. getting to places out of walking distance;
2. shopping for groceries or clothes;

3. preparing own meals;
4. doing housework; and
5. handling money.

Branch and Hoenig (1997) concur, adding shopping for clothes as part of the IADLs in their assessments. Butler et al. (1998) add to the prior lists of ADLs and IADLs, as follows:

1. orientation to time, place, person
2. grooming;
3. continence;
4. standing and walking;
5. climbing stairs;
6. fire and accident security;
7. ability to follow instructions;
8. ability to seek assistance when needed;
9. social participation (p. 274).

Branch and Hoenig (1997) discuss nine instruments that are available for measuring IADLs, recommending the use of the abbreviated version of The Functional Status Index. These instruments are:

1. The Functional Status Index;
2. The Rapid Disability Rating Scale;
3. The Patient Evaluation Conference System;
4. The Functional Activities Questionnaire;
5. The Lambeth Disability Screening;
6. The Disability Interview Survey;
7. The OECD Long-Term Disability Questionnaire;
8. The Health Assessment Questionnaire;
9. The Functional Independence Measure.

ADL and IADL measurement has become an integral part of the health care system's repertoire for determining both specific clients' service needs and clients' eligibility for Medicare and Medicaid reimbursement for these services.

A large proportion of the older population reside in their homes in communities, and many receive home care from informal or formal sources. The National Center for Health Statistics estimates that 84% of persons 65 years of age and older who are dependent in activities of daily living or instrumental activities of daily living live in the community. Of those who are 85 years and older, 64% who have disabilities live outside nursing homes. In other words, the majority of functionally limited older adults live in the community and will require care in outpatient or home settings. (Fried & Guralnik, 1997).

Butler et al. (1998) report that:

The 1986 National Health Interview Survey on Functional Limitations found, that about one-quarter (23%) of the 65-and-over population living in the community had difficulty with one or more of the seven personal care activities (ADLs) inventoried, and about the same proportion (28%) had difficulty with at least one of the six home management activities (IADLs) (p. 17).

The Impact of Age-Related Physical Disabilities on Dressing

Clothing is an integral part of each person's sense of physical, psychological and social well being. The importance of the activities of daily living demonstrate that the ability to dress oneself is critical to maintaining independence:

The satisfaction gained from independence in dressing as well as personal pride and enhanced self-esteem that comes from looking attractive...are conducive to psychological well-being. ...clothing that meets functional requirements contributes to social adjustment of the physically disabled person (Kernaleguen, 1978 as cited in O'Bannon et al., 1988, p. 15).

Yet, according to Hogge and Baer (1986), "the clothing needs of this age group have not received as much attention as has been given to other needs of the elderly" (p. 335).

The Reich and Otten (1991) study found that back closures, long sleeves with buttoned cuffs, turtlenecks and bras were the most difficult clothing items for women with arthritis to manage. Women also found difficulty dealing with side closures.

Men with arthritis found socks to be the most difficult article of clothing to put on; one piece pullover sweaters, pull-down styles, t-shirts, and ties were also difficult to manage. Turtlenecks and one-piece pull-on and one-piece pull-up styles were difficult for both men and women. Lack of grip or hand strength and limited range of motion accounts for these difficulties.

Physiological changes of aging occur gradually with time. Clothing choices must take into consideration these changes, which are made worse by crippling conditions as arthritis or stroke. Many chronic conditions result in limited range of motion that may require modifications to clothing such as the type of fasteners used.

Finding clothing that fits properly can be most difficult for older women, particularly women who must accommodate rounded shoulders, shorter backs from the neck to the waist, thicker waists, sagging busts, flabby arms or protruding abdomens. Current government sizing specifications, PS 42-70, do not take into consideration body changes of

elderly women. This does not prevent manufacturers from developing their own size specifications based on new trends in demographics to support these revisions. However, if each manufacturer creates their own size specifications, there is a good chance of inconsistency and confusion for the customer purchasing clothing.

Shopping from the Perspective of a Person with a Disability

Persons with a physical disability face many obstacles when shopping, the first of which typically deals with the store itself. Challenges include whether curbs are cut out to provide access for wheelchairs and walkers, whether the store itself is accessible, and whether there are stairs or ramps influence whether a person with a disability can go store shopping at all.

Shopping for clothing and accessories can be especially difficult, exhausting and frustrating. Often the store aisles are narrow, making it difficult to maneuver wheelchairs and walkers. The clothing racks may be too high for a person in a wheelchair to reach. Finally, the dressing rooms may not be large enough to accommodate the wheelchair, and a personal attendant may be needed to assist with dressing and undressing. These difficulties contribute to the reasons why many disabled consumers rely on catalog shopping.

In addition to these shopping inconveniences that are experienced solely, or more dramatically, by persons with a disability, there are several consumer-oriented risks that are shared with the general population, but

are potentially more serious for a person with a disability. O'Bannon et al. (1998) detail several of these risks, as follows:

1. economic risk: the importance of avoiding clothing which causes the person to lose money;
2. performance risk: the uncertainty of selecting a quality garment and the importance of avoiding poor quality clothing;
3. physical risk: the uncertainty of selecting physically uncomfortable clothing and the importance of avoiding physically uncomfortable clothing;
4. psychological risk: selecting clothing that is not consistent with the way a person thinks about himself or herself and the importance of avoiding clothing that is not consistent with one's self image;
5. social risk: selecting clothing that will cause others to think less of the purchaser and the importance of avoiding clothing that cause others to think less of them; and
6. overall perceived risk: unfavorable consequences of a clothing purchase and the avoidance of all unfavorable consequences occurring from a clothing purchase (pp. 15 & 16).

These risks become greater for the disabled person because of the difficulty in returning the item and the perceptions of those around the disabled person. Apparel is perceived as a category of purchases that has a relatively high-perceived risk, because it is socially visible.

Winter coats and suits were reported to have the highest correlations between risk and performance risk in the apparel categories. Typically these are *big-ticket* items, that frequently need alterations, making them appear risky, since the typical return policies on altered clothing are quite strict (O'Bannon et al., 1998).

Risks are also great for the elderly at large, who are perceived as vulnerable, even if they are not disabled. A survey of 331 police

departments across the country demonstrates that females aged 65 to 79 who live alone are most likely to be victimized by consumer scams (Norrsgard, 1995).

Adaptive Technology as an Aid to Independent Living in the Elderly

Adaptive technology makes older persons with disabilities feel more comfortable, physically safe and emotionally secure, while at the same time this technology enhances independence which enhances self-esteem.

The use of adaptive technology is growing dramatically. From 1980 to 1990, the use of assistive technology devices grew more rapidly than the population during the decade (LaPlante et al., 1992). In 1990, more than 25 million Americans said they need assistive devices that they do not have, primarily because they cannot afford them (Wylde, 1995).

A 1990 National Health Interview Survey on Assistive Devices (Gitlin, 1995) shows that 52% of people who use any assistive technology were over 65 years old. Adaptive technology users typically fall into five categories:

1. persons who are caring for a family member and for whom technology may lighten the burden of care;
2. older persons who perceive this type of technology as promoting safety or reduced risk of injury;
3. persons who experience age-related changes or functional decline for which technology would enable independence and minimize disability;

4. persons with a first time disability or experience multiple chronic conditions that may require technology devices to perform personal care; and
5. people who are aging with a disability and who may use assistive technologies over the long term to sustain daily activities.

Gitlin (1995) conducted an extensive literature review on assistive technology and the elderly. She found only eleven studies conducted in the United States that included a sample of persons who were 55 years of age or older. These studies reported averages of 2 to 13.7 devices in the homes of older people and a wide variation in use. She reports another study of 139 older rehabilitation patients discharged to their homes who received an average of 8 devices (a range of one to eighteen) for home use to facilitate mobility, dressing, bathing, feeding, seating and grooming (Gitlin et al., 1994).

During the first month home, 47% of the issued assistive devices were being used on a regular basis. Subjects either rejected or abandoned a device or accepted and used it regularly. Very few used a device on an occasional or infrequent basis.

A Canadian study of 1,400 community dwelling elders with mobility impairments found that the most important determinant of the use of a mobility device was the number of mobility problems a person experienced, as opposed to the level of severity of the problem. Persons who reported three or more mobility restrictions were more likely to use a mobility aid than those who reported fewer difficulties (Zimmer & Chappel, 1994 as cited in Gitlin, 1995).

Adaptive technology may be viewed as a positive mechanism to regain independence, or it may be perceived negatively, representing a symbol of lost function. For example, stroke patients express a high level of negativity towards disability and the devices issued to them. It has also been reported that stroke victims experience severe disruption in personal identity, thus putting this group at greater risk of abandoning their devices (Becker, 1993 as cited in Gitlin, 1995).

A positive attitude towards devices, one that views them as tools for independence, is important to successful and continued use. Persons who are willing to experiment with assistive technology will find successful ways to minimize functional loss. These are people who value their independence more than they are concerned about the social stigmas that may accompany the use of adaptive devices.

Gitlin studied 86 older rehabilitation patients who were first time device users, who experienced either a stroke, orthopedic deficit or lower limb amputation. For this study involved subjects for whom the device need was identified by a health care professional, instruction was provided in the hospital and the subjects were sent home with their devices and no out-of-pocket costs. This group of patients experienced none of the potential reasons for the abandonment of device. These reasons included the lack of knowledge, access, cost or instructions on how to use devices. According to Gitlin (1995):

During the first month home, greater frequency of device use was found for those who held a positive orientation toward devices and

who during hospitalization expected to use the device upon return home. A positive orientation toward devices included viewing the devices as tools for independence as well as a willingness to experiment with different strategies to compensate for functional loss (p. 42).

Use of a device in the home in month two is predicated on the frequency of use in month one, and month three use is based on the amount of use in month two and the type of disability. For example, those who live alone and those with less formal education tend to use devices more frequently by month three. This may be because they have depleted the good will of their friends and relatives who were caring for them. Also, persons with greater psychological adjustment and lower morale use devices with greater frequency in month three.

Adaptive devices are often abandoned because of inadequate instruction. Special attention should be paid to the specific setting in which the device will be used to assure proper utilization. Health care professionals should periodically re-evaluate the continued use of an adaptive device based on circumstances that may change in the home life. Older people will use adaptive technology if they feel that it will help them to perform meaningful and satisfying tasks.

The positioning of assistive products is critical to the success of the item in terms of customer acceptance. The same technology presented two different ways may have two different levels of acceptance (Wylde, 1995). For example, positioning an item as a time saver may result in greater acceptance than if it is presented simply as a convenience.

Likewise, presenting a device as an aid in preventing accidents may boost acceptability over positioning the product as a device to compensate for the loss of a physical function.

Many disabled elderly people worry that assistive technology is replacing personal assistance, a trend that they view very negatively. On the positive side, however, assistive technology can save money that can be more effectively used to reach and care for more people.

Chapter IV

CLOTHING AND THE AGING PROCESS

A Functional Approach to Fashion for the Elderly and Persons with a Disability

While it is clear that clothing is one of the ways aging persons can manipulate their appearance to adapt to the physical signs of the aging process, adaptive clothing can take this process one step further by minimizing the impact of the disabling effects of the aging process.

Reliance on assistive/adaptive technology is growing in all areas in the marketplace (Enders, 1995). The adaptive approach is also becoming more prominent in the basic personal care area of clothing and dressing.

Adaptive clothing benefits both the caregiver and the person receiving care by making the tedious task of dressing much easier for the person who needs assistance as well as the person who can dress independently. This is an important consideration since family members provide nearly 90 percent of the support for older persons with long term chronic conditions (Gitlin, 1995).

Persons with disabilities face many mobility challenges, from movements as small in range as finger usage to as big as taking a step, standing or walking. With a loss of mobility and depending upon the severity of the disability, comes loss of independence, self-esteem and sometimes even social status.

For a person with a disability, dressing can be painful, fatiguing and in some cases impossible unless special needs are taken into consideration to compensate for the loss of mobility. Adaptive clothing and accessories provide one strategy for enhancing independence, preserving self-esteem and maintaining social status for a person with a disability.

Adaptive clothing also preserves personal dignity and minimizes feelings of being a burden, which frequently negatively impacts self-esteem for persons who must rely on caregivers as a support system for the ADL of dressing.

There are two populations that adaptive clothing and accessories serve:

1. persons with disabilities who can maintain their independence with the use of assistive technology which includes adaptive clothing and accessories; and
2. caregivers of persons with disabilities, whether it be in the home by a family member giving care, assisting the person, or in an institutional setting with a professional caregiver.

Many elderly persons have serious mobility problems caused by arthritis. It is a common occurrence for persons with arthritis to have difficulty with closures such as buttons and zippers. It is also hard for them to pull on and take off pants, put on and take off pull-over tops.

Some people with arthritis have difficulty simply getting into a button-front shirt because of a limited range of mobility in the shoulders and arms.

There are numerous causes of disabilities and many of the modifications to clothing and accessories that work to accommodate one disability can also accommodate another disabling condition, thereby simplifying dressing problems associated with some other disabilities.

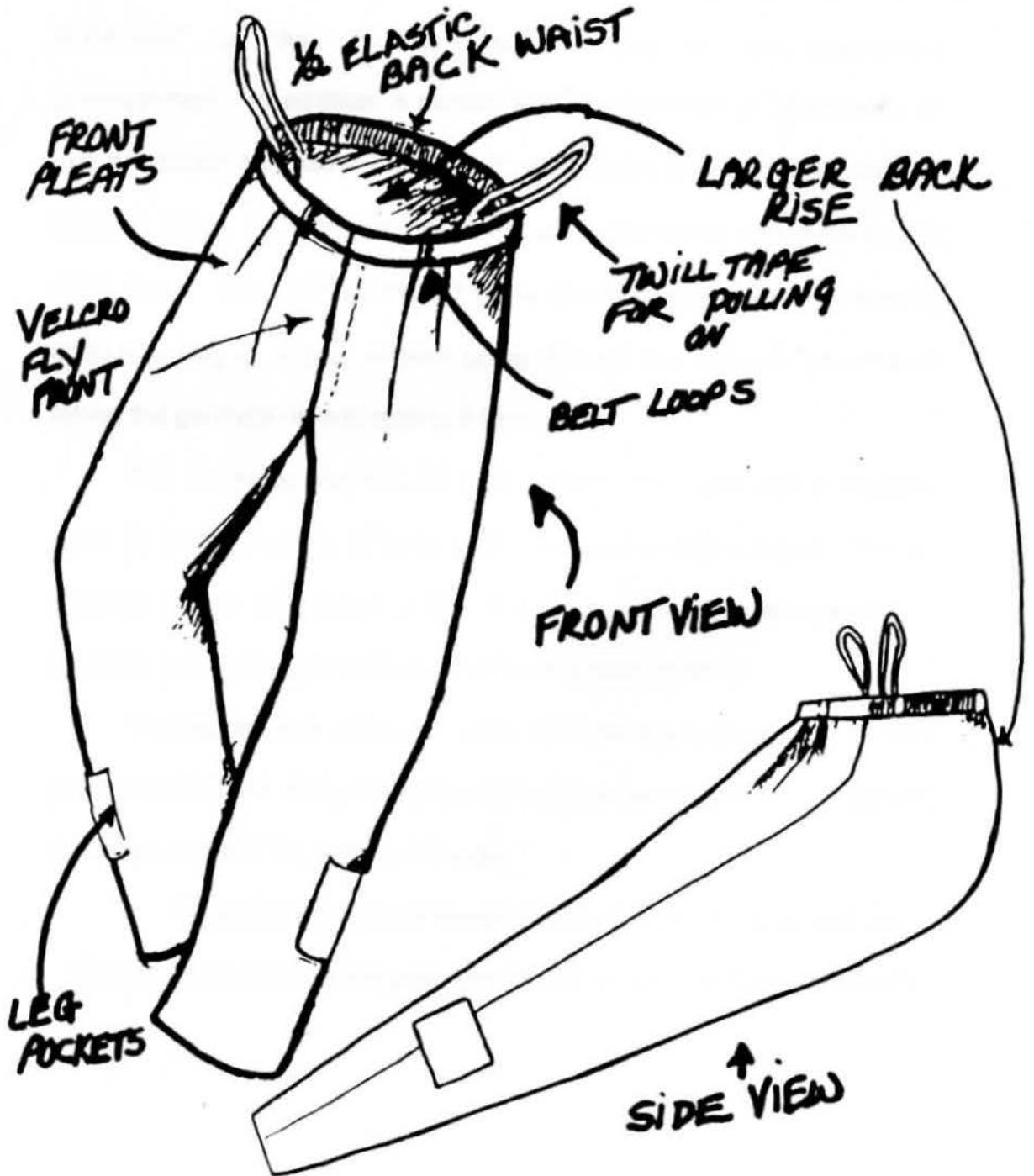
One of the most difficult problems for a person confined to a wheelchair is getting dressed. Often a wheelchair-bound person must stand up to get a garment on. Paradoxically, if the person had enough strength to stand, they might not need to be in the wheelchair.

Conventional jacket and outerwear styles are bulky and uncomfortable to wear for a wheelchair user, because sitting on the extra fabric in the back is uncomfortable and often restricting. Discomfort is also caused by fabric that is bunched up in the back of the wheelchair because there is nowhere else for it to go.

Forde's Functional Fashions has developed innovative designs to minimize the handicapping effects of a physical disability on a person's ability to wear clothes and styles of their choice.

High rise back slacks are represented in Figure 1. These slacks are designed so that the back rise is longer and the front rise is shorter than conventional slacks to adjust for a wheelchair-bound person remaining in the seated position for long periods of time. This design is more comfortable for a seated position because the back does not ride

Figure 1
High Rise Back Slacks



down exposing the person's derriere. In addition, this design compensates for the sitting position because the front does not feel as tight across the stomach.

Double pleats in the front provide extra room for someone who is sitting all the time. The pleats also provide room for a person who is incontinent to accommodate the bulkiness of an incontinent undergarment. In addition, a person who is incontinent or who needs to use a catheter can use a modification to the pant with a hidden Velcro® opening on the inseam from one knee, up to the crotch and down to the other knee. This hidden Velcro® close crotch provides an easy way to change a bag or a pad, without going through the stressful process of taking the garment off and putting it back on.

For someone who has no grip strength, this pant with a Velcro® close fly front, is easier to close than one closing with a zipper. The fly extends all the way down to the inseam to maximize the opening to facilitate putting the garment on, and to allow easy toileting.

Two hidden twill pull loops, sewn into both sides of the pant, allow a person without the ability to grip and pull on the pant to slip their wrists into the loops and pull the pant up his legs.

Typical quarter top or western pockets in the front, as well as pockets on the back of the pant, are difficult to reach and uncomfortable

for a person who is in a seated position. Pockets are placed on the pant leg outseam, just below the knee. This enables easy access to the pockets, making this pant more functional for a person in a wheelchair.

Some people prefer no pockets at all to having non-normalized pockets that may draw unwanted attention. For those individuals who prefer no leg pockets, a bag with pockets that attaches to the wheelchair, helps compensate for the lack of garment pockets. This is not an inconvenience for them as long as the wheelchair goes where they do.

Slacks that are designed with a half elastic back and belt loops have the appearance of being dressy while still ensuring proper fit at the waist.

Putter pants are shown in Figure 2. This silhouette is popular with men and women without any modifications to the garment. Slight adaptations to the garment make it a very simple garment to put on. For example, an elasticized waist means that fasteners are not necessary.

Twill pull loops sewn inside on both sides of the garment enable a person who has no grip strength, to slip his or her wrists into the loops and simply pull up the garment by the wrists. There are two on seam side pockets for a person who is ambulatory. The person using a wheelchair may not choose to use the pockets.

Women's front closure skirts are depicted in Figure 3. Because dressing in this type of skirt requires minimal lifting, the front closure or

Figure 2
Putter Pants

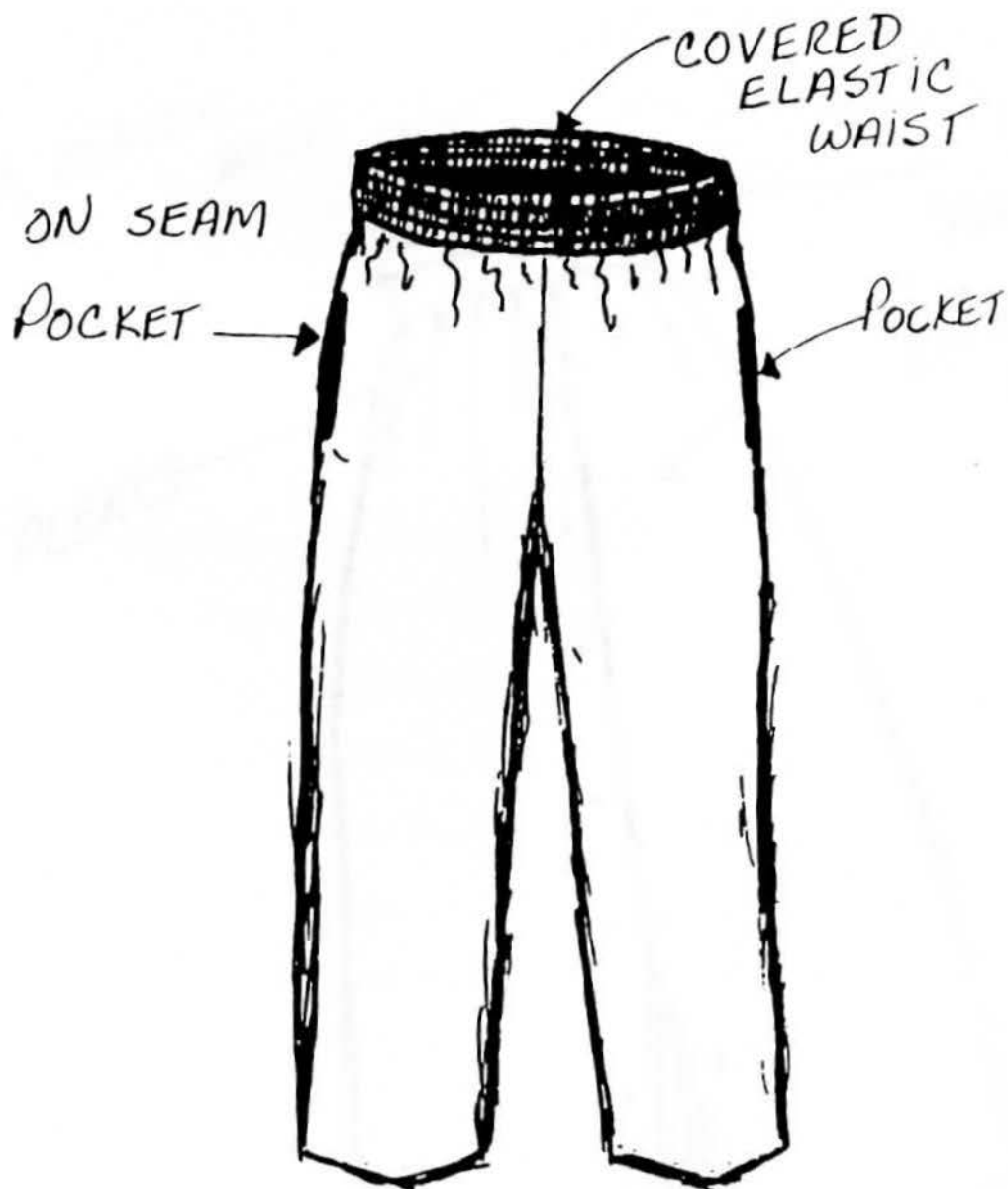
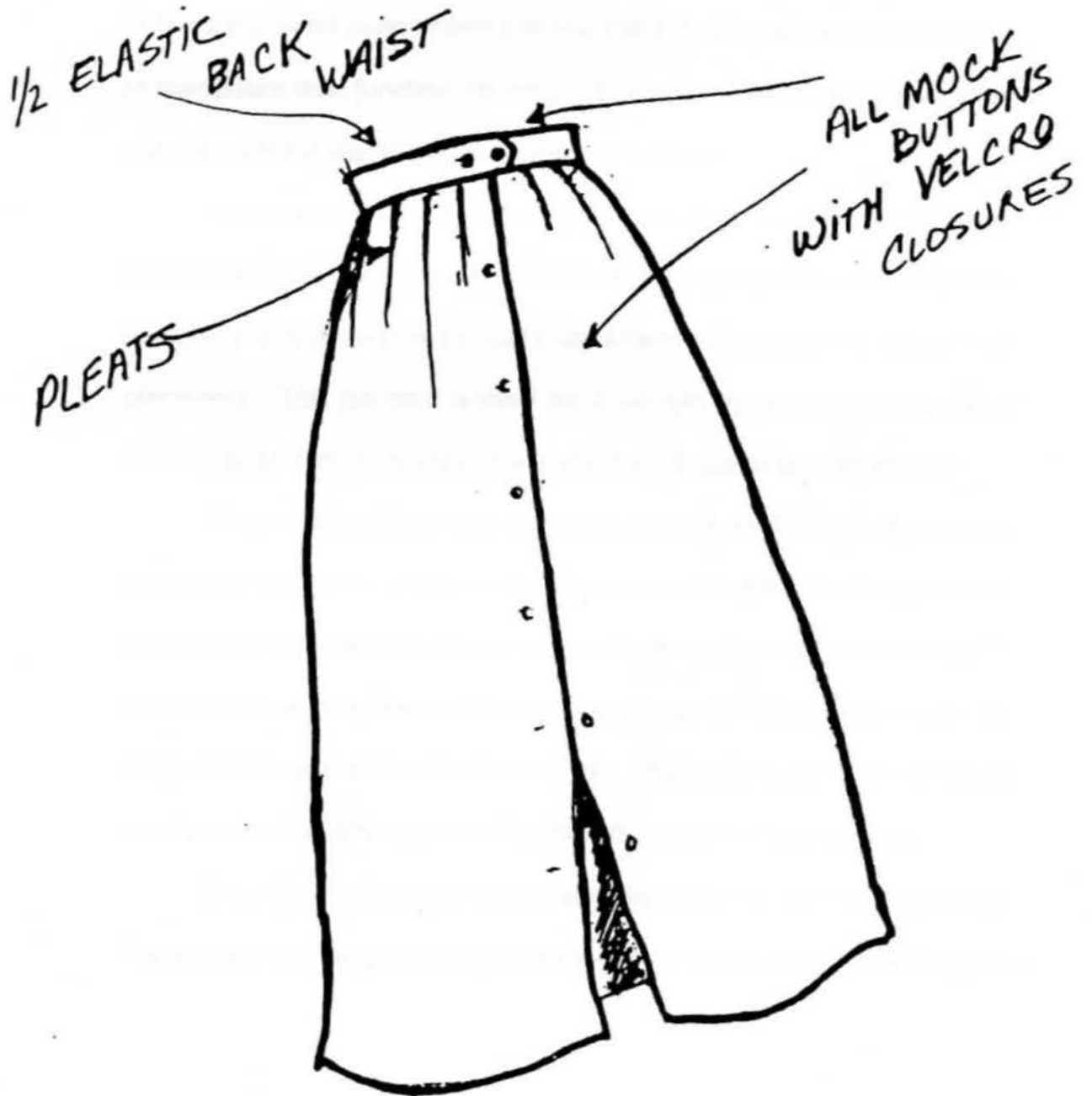


Figure 3

Women's Front Closure Skirt



wrap skirt is one of the most practical items a woman in a wheelchair can purchase if she is unable to stand. A wrap or front closure skirt can be opened up and laid flat across a wheelchair seat so that the woman gets into the skirt as she transfers into her chair.

The half elastic back ensures proper fit around the waist. Mock buttons with mock button holes conceal Velcro® closures which are easier to manipulate than functional buttons. The mock buttons and button holes give the skirt the appearance of being normalized.

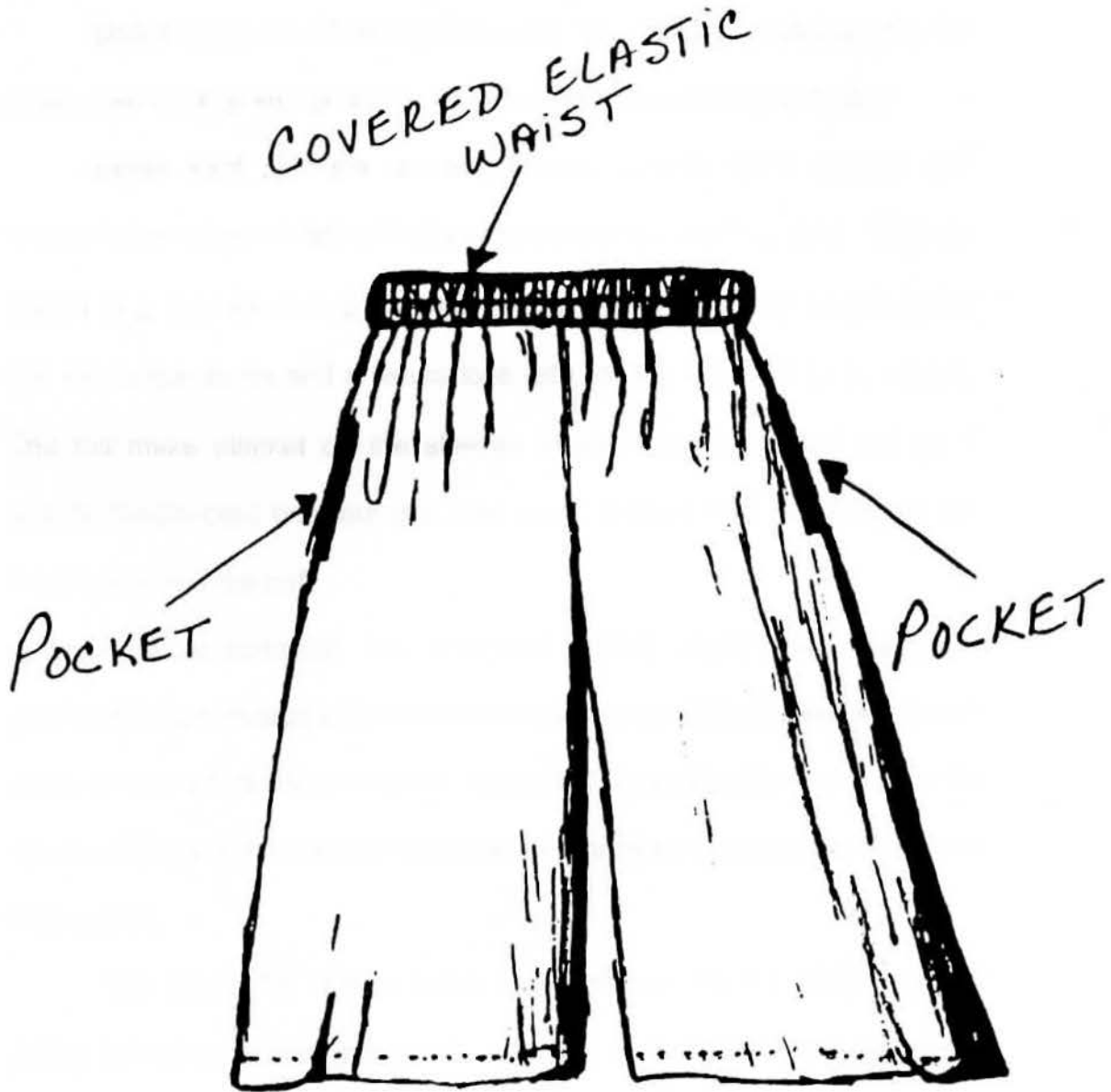
Placement of the pocket on the front of the skirt below the knee makes the pocket more accessible. The front pocket can be eliminated for persons who believe that it would draw unwanted attention by its unusual placement. This garment is ideal for a woman making a doctor's office visit because it minimizes the strain of getting dressed and undressed.

Women's split skirts are represented in Figure 4. This silhouette is frequently found for women without any modifications to the garment. Slight modifications make it a very useful garment because the design is such that a woman does not have to worry about sitting "like a lady" as she would in a traditional skirt or dress. The roominess of the garment provides comfort and does not restrict body movement in any way.

The fully elasticized waist means that fasteners are not necessary. For women with no grip strength, twill pull loops sewn inside on both sides

Figure 4

Women's Split Skirt



of the garment enable her to slip her wrists into the loops and simply pull up the garment by the wrists.

Deep on-seam pockets are handy for a person who is ambulatory; they do not pull or restrict the garment because of the loose flowing fit. The person using a wheelchair may not choose to use the pockets.

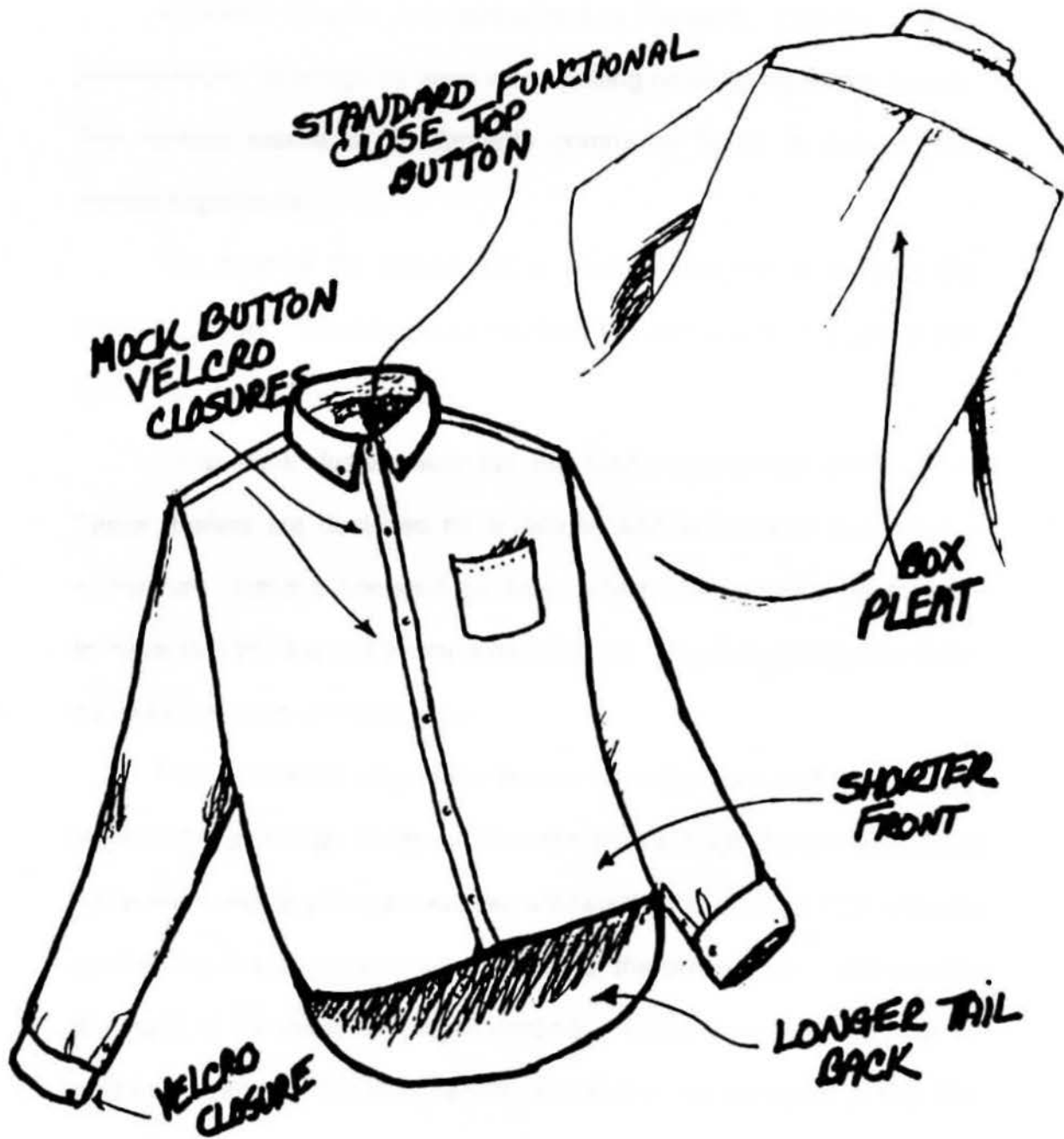
Dress shirts are shown in Figure 5. The detail and styling of a full make men's dress shirt is a critical component of a man's wardrobe.

Dress shirt plackets are engineered so that mock buttons and button-holes conceal Velcro® closures on the front of the shirt. The top button is a fully functional/standard button, because many people leave the top button open and it would look odd for the Velcro® to be visible. The full make placket on the sleeves makes this shirt stand out as a quality constructed garment and has mock buttons and button-holes on the placket and the cuff.

Armhole openings are designed slightly larger than traditional men's shirt specifications to enable the disabled person or caregiver to get arms in and out of the armholes. The back pleat provides more room to get in and out of the garment as well as promotes maneuverability in the wheelchair.

The longer tail bottom in the back ensures that the shirt does not come out when tucked into pants, and the shorter shirt front minimizes bulkiness and excess uncomfortable fabric.

Figure 5
Dress Shirt



The chest pocket, an important feature for men in wheelchairs, is designed so that the corners are slightly rounded. This prevents articles from getting stuck in the corners of the pockets.

Women's blouses are represented in Figure 6. Dolman sleeves provide roomy openings for arms when putting on or taking off the blouse. The dolman sleeve is a silhouette commonly found in conventional women's garments.

The front of the blouse has a placket designed to conceal the Velcro® closure. There is also a mock button and button hole on the cuff to conceal the Velcro® closure.

Snap back dusters with cut out backs are shown in Figure 7. These dusters are designed for a woman who is confined to bed or a wheelchair. When a woman is confined to bed, she may be embarrassed to have visitors see her in her night clothes. Psychologically, she feels much better when she is dressed.

This duster is very easy to put on and does not require the individual to stand up. It slips on from the front through the armholes, and the woman wearing the garment leans forward (with or without assistance) so that the caregiver can snap the back of the dress closed and smooth the front of the dress for proper draping. There is no waist to bind or restrict movement. Another benefit provided to the caregiver is that this garment will not become soiled or stained if the person is incontinent.

Figure 6
Women's Blouse

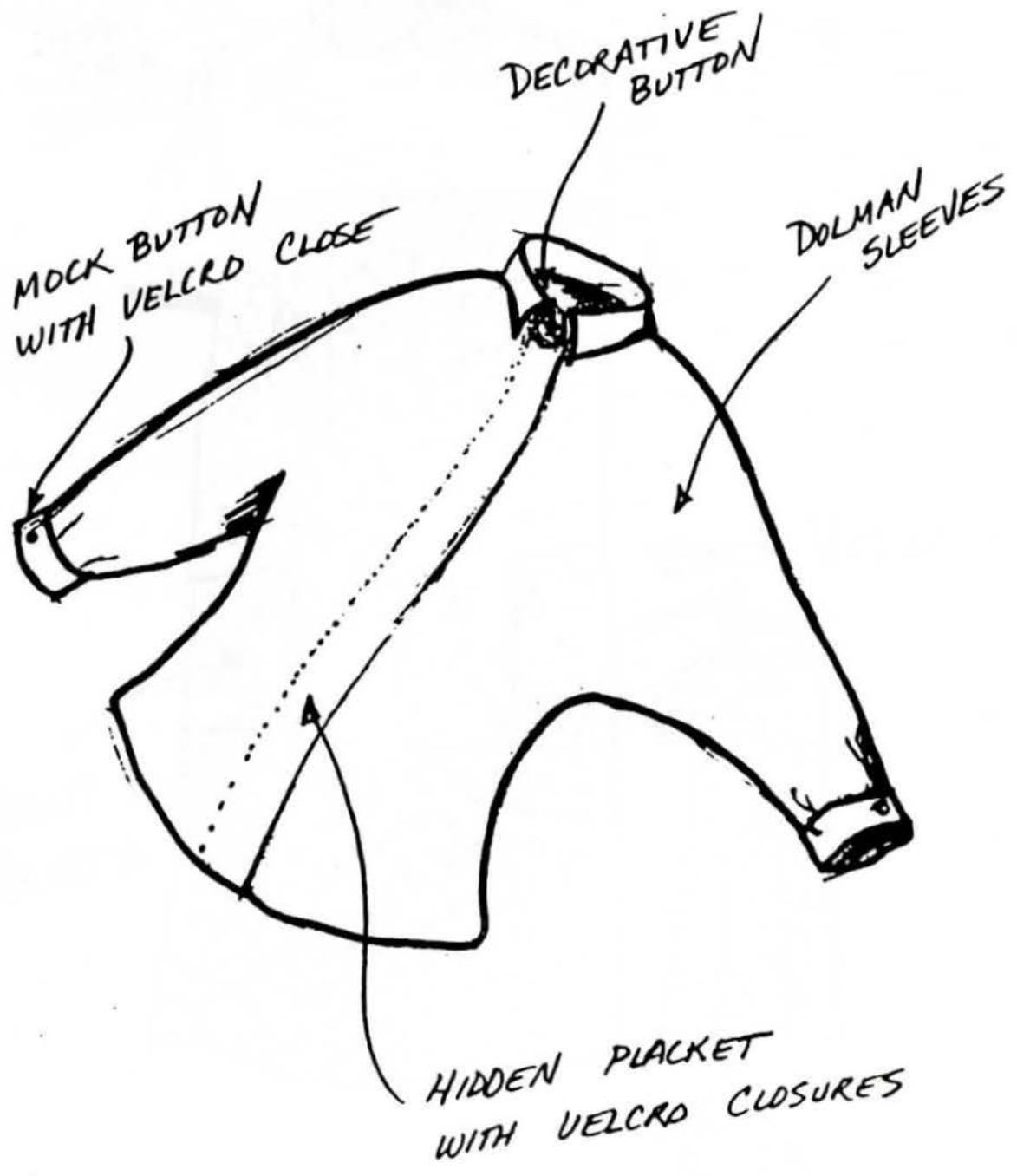


Figure 7

Snap Back Duster



Slips with cut out backs offer an alternative for a woman who cannot put on undergarments yet feels uncomfortable without them.

Raglan sleeve pullover tops are displayed in Figure 8. Tops with raglan sleeves are commonly found in both men's and women's clothing. A raglan sleeve is designed so that the seam is sewn from the shoulder closer to the neck diagonally down to under the arm. This type of sleeve allows more room to get arms in and out of the garment, which is particularly helpful when pulling the garment off or on over the head.

Another feature of this pullover top is the placket that goes down approximately one third of the front of the garment. When the front placket is open, it provides more head room, and the raglan sleeves make it easier to pull the garment on or off over the head and arms.

The placket is engineered with hidden Velcro® closures and two mock button and button holes for those who have difficulty with small buttons. The top button at the neck is a standard functional button so that if the individual chooses to leave the top button open there is no Velcro® exposed, giving it the appearance of a normalized garment.

Wheelchair bags are shown in Figure 9. This wheelchair bag primarily benefits the caregiver who takes the wheelchair bound person out into the community. It attaches to the wheelchair push handles with adjustable Velcro® straps. Zippers have rings for quick and easy pull.

The main large pocket has two compartments, which are especially helpful for keeping soiled items separate from clean items. The extra front

Figure 8

Raglan Sleeve Pullover Top

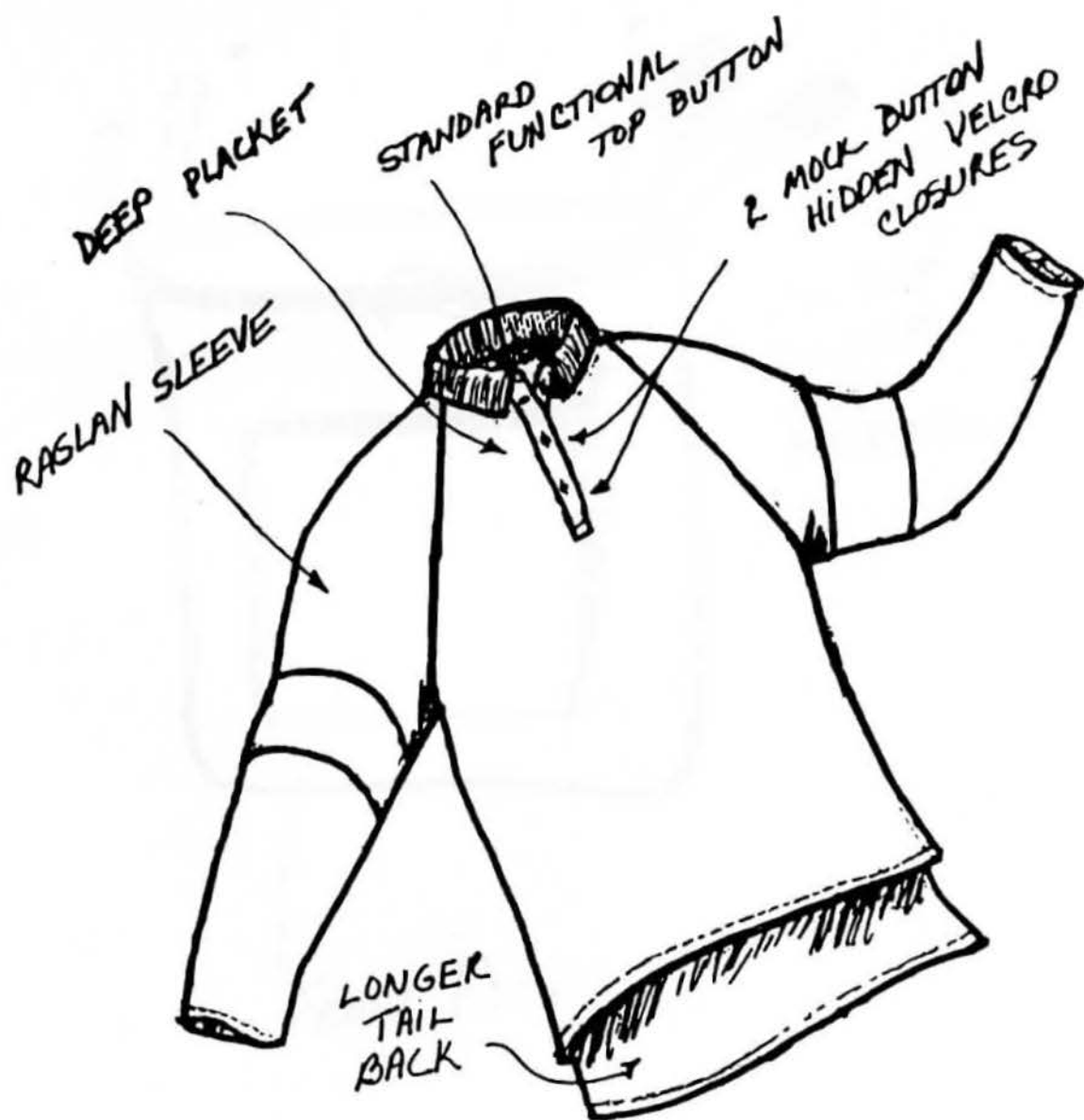
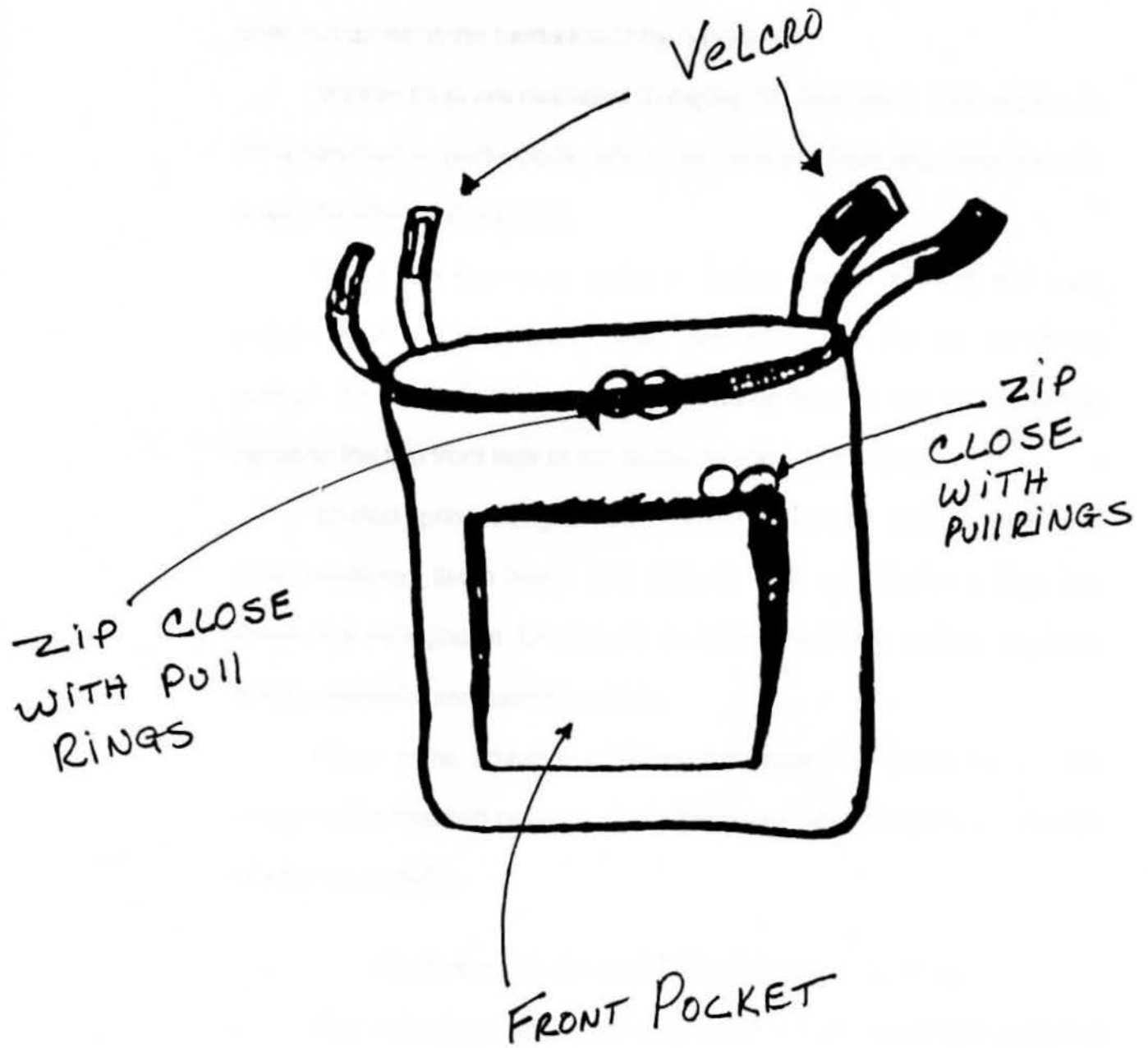


Figure 9
Wheelchair Bag



pocket is designed to keep an 8 ½" by 11" binder in the front if medical records need to follow the individual in the wheelchair.

Occupational therapists prefer these bags to other types of bags (plastic grocery bags, or regular backpacks) because the wheelchair bag does not damage the hardware of the wheelchair.

Walker bags are displayed in Figure 10; they are a good substitute for a handbag or pocketbook, which can be impractical and dangerous for a woman who uses a walker.

There are numerous types of walker bags. One of the most popular is designed to snap closed and hang from the top bar of the walker. If the individual chooses, the bows on the side can be untied and retied to the two front legs of the walker to stabilize the bag.

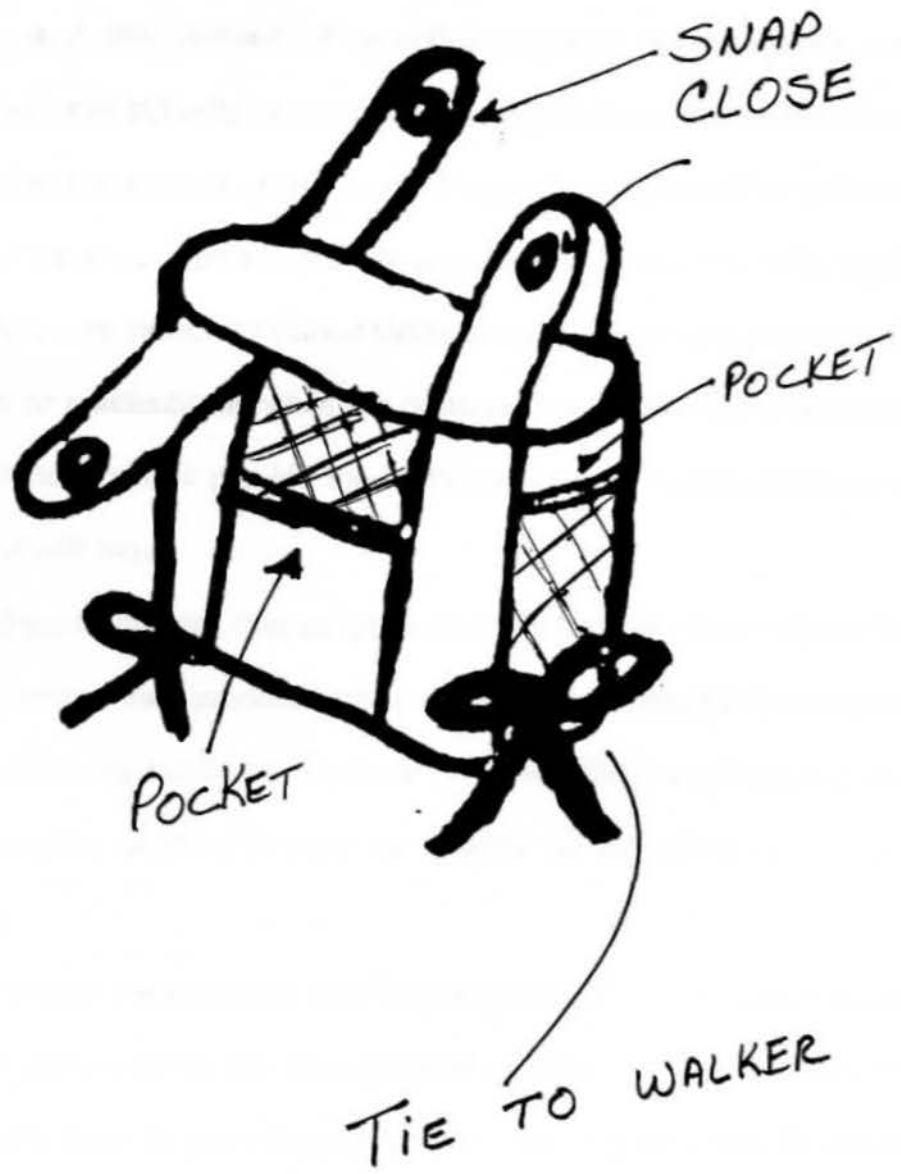
Quilted print designs are visually attractive and do not look institutionalized, like a health care product. The main pocket is large and there is a side pocket for glasses or pens. The front pocket can keep money separate and easy to access.

Many more adaptive clothing and accessory items have been designed for disabled persons, these items are just a small representation of what is available.

Limitations on the Availability of Adaptive Clothing

The individuals who need and would benefit most from adaptive clothing and accessories most often are not aware that these types of products are available. According to Norrgard (1995), consumers do not

Figure 10
Walker Bag



know what they do not know or how to readily acquire shopping information.

Adaptive clothing products are primarily marketed to the professionals who work with disabled people. This information is not always passed on to the ultimate consumer in a timely fashion.

Health care professionals often do not consider adaptive clothing a priority, and the subject of adaptive clothing is sometimes never addressed with patients or residents. Therapists have stated that there is no need to include technology in discharge planning until the last minute because "local vendors can provide anything in 24 hours" (Wylde, 1995).

It is very difficult to market these products to the end users because patients' or residents' identities are protected by law; therefore health care professionals cannot provide the marketer with the names of those who would benefit most.

Despite the fact that adaptive clothing suppliers incur higher costs to manufacture their products, these clothes are not eligible for reimbursement benefits by Medicare, Medicaid (Weiner, 1995) or private insurance. Most adaptive clothing is paid for directly by the users or the user's families.

Product development and final approval of a prototype is a costly process compared to the development of discount merchandise, even before the item is put into production. The higher costs in adaptive apparel are associated with engineering the garments to make them

appear to be normalized. Normalization is the most critical component to a successful adaptive garment.

Disabled persons do not feel like they have to wear the latest fashion trend, but they do not want to look different from the general population. If a garment does not have the appearance of a "normalized" garment, then the consumer can be faced with psychological and social stigmas that can impair self-esteem.

Changing Clothes

Age-related changes challenge older persons to maintain their identity as their physical bodies, their social networks and their culture's concept of their value also change. Each of these potential threats to the aging person's self identity is also a potential threat to the aging person's psychological well being. As Jahoda (1958) has written about emotional health, "a healthy person knows who he is and does not feel basic doubts about his inner identity."

Clothing, a major form of non-verbal communication between an individual and his orienting culture, plays an important role in helping persons of all ages to know who they are so that they do not feel basic doubts about their inner identities.

Aging persons need access to affordable clothing of their choice that accommodates the physical changes that co-occur with aging. But many lack knowledge of this type of clothing, or lack resources to secure

it. For such persons, the aging process risks taking a double toll, once on their physical well being and a second on their emotional well being.

Professionals who work with aging persons, especially those aging persons who are developing physical disabilities as they age, should promote and provide attractive and adaptive clothing (of their choice) to their aging clients and patients. For these seniors, such clothes will allow them to change with the times – changing clothes.

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