# 4

# Special Clothing Needs—and Solutions—for the Physically Handicapped Identified

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Many physically handicapped people face two types of clothing problems: garment design and shopping facilities.

Fasteners too hard to fasten and fitting rooms too small for wheel-chairs are examples of the obstacles identified in a University of Arizona study of the special clothing needs of the handicapped.

The study has pulled together information about the subject from 20 years of publications and other sources. It aims to make the information more accessible for the handicapped themselves and for others who can use it, such as clothing manufacturers and retailers, educators, professionals and paraprofessionals. One part of the study, a survey of handicapped Arizonans, provided useful categories and descriptions of handicaps and clothing problems.

Dr. Naomi Reich, chairman of the Division of Clothing, Textiles and Interior Design at the UA School of Home Economics heads the three-year project. Elizabeth Shannon, vice-chairman of the comparable department at the University of Manitoba in Canada, has worked on the project in Arizona while on sabbatical leave from Manitoba. The Arizona Agricultural Experiment Station is funding their work.

By 1970 figures, 11.2 percent of Americans between the ages of 16 and 64 have long-term physical disabilities. In Arizona, the proportion is 13.0 percent. Reich and Shannon chose the 16-to-64 age group because it covers people who are employable, physical condition permitting. Nearly half of the

110,000 disabled Arizonans in that age group are actually in the labor force.

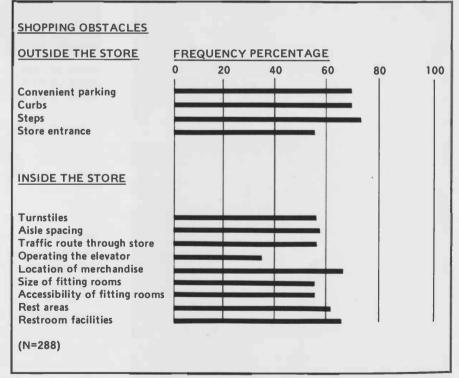
#### **Useful Categories**

The survey of handicapped Arizonans aimed to find useful ways to describe and categorize handicaps and clothing needs. A pretested questionnaire was mailed to Arizona representatives and alternates to the 1977 White House Conference on Handicapped Individuals. Of the 319 respondents, 288 were in the target 16-to-64-year age group. Nearly three-fourths of the respondents had been disabled for 10 years or more.

The largest proportion of respondents suffered from arthritis. The next most common disabilities, in order of frequency, were polio, spinal cord injury, and nerve damage or visual impairment.

From the survey data, the researchers identified six categories of common physical limitations, based on the parts of anatomy affected by a handicap, rather than the medical cause of the handicap. The categories are lower leg, lower torso, hands, arm, upper torso and neck.

A lower torso physical limitation, for example, might be due to arthritis, cerebral palsy, spinal cord injury, muscular dystrophy, multiple



Physically handicapped people in Arizona, ages 16 to 64, identified the above features as areas in which they have experienced obstacles while shopping for clothes.

5

sclerosis, neuromuscular paralysis or polio. It may necessitate the use of braces, crutches, walkers, wheelchairs or incontinence products.

Style features of clothing with which women in the survey group found difficulties also fell into six categories: back closure, front closure, side closure, wrap-around style, one-piece pull-down garment, and one-piece pull-up garment.

## **Barriers and Needs**

Handicapped people of both sexes indicated that the characteristics of ready-to-wear garments which most frequently cause problems are: no give at the waist, openings too small, armhole and sleeve too tight, and no ease in the shoulder. Seams, fasteners and areas of severe wear often need repair, they said in the survey.

Shopping barriers were a significant concern to those people surveyed. Even in Arizona, handicapped people are confronted by a number of obstacles when entering stores and by mobility problems within stores. The survey identified steps outside the store and the location of merchandise inside the store as sources of difficulty for about two-thirds of the survey group. Figure One shows other features identified as shopping obstacles by one-third or more of the age 16–64 respondents.

Almost one-third of the survey group reported an annual income of \$3,000 or less. Researchers Reich and Shannon see this as evidence of a need for many handicap victims to be able to use ready-to-wear clothes with a few simple modifications instead of needing more expensive, custom-designed garments.

The job-age handicapped have many needs. The goal of these researchers is to acknowledge and share solutions that do exist for clothing and daily living needs.

## **Available Information**

Information that has been published about the clothing needs of

physically handicapped people comes from a wide variety of government and private agencies and from both health and clothing professions.

The types of literature are as varied as the sources. One publication deals only with functional fasteners. a second with how to take measurements of a seated person, others with ways to modify existing clothes. Booklets offer clothing suggestions for disabled children, for the elderly, and for a person with an ostomy, mastectomy, arthritis, quadraplegia or stroke. Some journal articles deal with specific support devices or design factors for people with specific handicaps. Filmstrips, slide shows, catalogues, and handbooks also address the daily living needs of the handicapped.

The UA research staff has catalogued all of this information



Dr. Naomi Reich displays dropseat pants with hook-and-loop tape fastenings, designed for people who have trouble balancing while standing.

available by June 1979 in "Clothing for Handicapped People, an Annotated Bibliography and Resource List." The President's Committee on Employment of the Handicapped is publishing the work, and portions are being added to a computerized retrieval system, "Accent on Information."

The researchers are providing information more directly to those who seek it, too. They have answered nearly 150 requests for information either about their findings or about specific personal problems, such as pant designs for a person with a spinal cord injury or clothing labels to indicate colors for blind people. Examples from their mail include:

My daughter, who has cerebral palsy,...can't find a button hook large enough to button pants.

I am a below-the-knee amputee and my pants leg continuously wears out where my artificial limb protrudes around the knee area. Is there a light, soft and strong material which can be glued to the inside of the pants leg to make for longer lasting wear?

I am a rheumatoid arthritic. As the years and the crippling have progressed, so have my clothing problems ... I need a loose, slip over the head garment with deep armholes.

I have a sister ... who is a paraplegic. She has two bags, one for colestomy and another for ileostomy. She has had a difficult time getting pants right for her ... Are there skirts of some kind she could wear?

Forty percent of the inquiries were from handicapped people themselves. Information has also been shared through presentation to UA Extension county home economists and to local agencies that deal with the physically handicapped.