

INTRODUCTION

Clothing is one of the fundamental needs of an individual in every day living. Clothing is a means of self-expression as well as a basic necessity. It also contributes to the attainment of certain desires, social participation, conformity, prestige and aesthetic expression. Most people are interested in clothing that is comfortable, convenient, easy to handle, safe to wear, easy to clean and attractive in design. This is equally true of the handicapped individuals whose needs are even greater than ours because they need special designs and adaptations for comfort and convenience to increase their ability for becoming independent. Hallenback (1966) suggested that "for certain kinds of physical handicaps, specially designed clothing encouraged independence and promoted adjustment to the disability".

We all can remember having problems with hooks that won't close, buttons that are too small to grasp, or zippers that are difficult to reach. For some people this is an inconvenience, for others it is a physical barrier that creates discomfort and prevents independent living (Talon/Velcro Consumer Education).

Uncomfortable clothes can take away the joy of living for anyone and only a strong willed person can enjoy himself

on any occasion in spite of not being well dressed. Handicapped people of all age groups - both children and adults can find the process of dressing and undressing a difficult or laborious task. The problem of dressing can also prove to be a burden or troublesome job for parents and family members. It can also restrict a person's activities and put him at a disadvantage thus giving him a feeling of dependency, inferiority complex and frustration. Ill-fitted clothes can also hamper normal social interaction, education and work.

Clothing can help to minimise the appearance of physical deformities. It is therefore, of primary importance to the handicapped people. Correctly chosen clothing and specially designed garments can aid in developing a higher self-concept and confidence in their appearance.

The physically handicapped must be trained in self-care activity of daily-living which is basic to the process of rehabilitation. Special devices help the handicapped to become independent in self-care activity of daily-living but the process of rehabilitation cannot be complete without making them independent in dressing and undressing.

Although efforts have been made in India to meet the needs of physically handicapped in the area of special appliances, therapeutic aid and self-help devices to enable them to be

independent and self-sufficient, yet, the importance of comfortable, convenient and self-help clothing, to give a feeling of self-confidence to the handicapped is a neglected area.

The investigator observed several instances and occasions where disabled children were dressed in garments worn by any normal child, giving no importance to their specific needs, or ability to dress nor their deformities. They were tramp like in appearance which was a disappointing and sorry sight indeed. However, as a student of Clothing and Textiles, it seemed that there were great possibilities for improving the clothes of the disabled for comfort, independence and the appearance if certain aspects of clothing were considered.

Hence an attempt was made by the investigator to study the clothing problems of such children. A number of problems which appeared to be common in children with physical disabilities were found during the investigation. Many children who were using calipers, braces, crutches and sticks to become mobile, they faced the problem of pulling up the trousers over the calipers and braces. They also had the problems of wear and tear in their garments. Some were dependent on others in their dressing due to inconveniently placed openings and closures with fasteners which they were unable to reach or were difficult to manipulate.

Also clothing the handicapped child was a major problem faced by many parents. Meeting the clothing needs of the handicapped child in choosing suitable clothing as well as making him independent to dress and undress was either a frustration or challenge for such parents.

The problem is one that affects a large group of children in our country. Accurate data concerning the number of handicapped in India were not available. But various estimates of their number have been made by experts from time to time. The Union Minister of Education and Social Welfare, Dr. P.C. Chunder (1978) in his keynote address at the First All India Conference on Work for the Handicapped in Bombay said:

"In our country the main problem is the problem of numbers. We have a huge number of disabled in our country and on a modest computation we find that the number of only the blind will be about nine million and if we take into account other types of disabled, it will be near about 10 percent of our total population and roughly it will be about 6.½ crores by this time".

According to the 1981 census more than one million people in India are totally disabled. The number of totally blind is put at 478,657, totally crippled 363,600 and totally dumb 276,691.

However, the number of partially disabled persons is much higher. To get reliable estimates of their number and the

services required to help them, a survey is being undertaken by the National Sample Survey Organisation. The objectives are to obtain information on the age, sex and the kind of disability suffered by the disabled. The key results of the survey are expected to be available in 1983 (The Times of India, 1982).

Unfortunately the number of the physically handicapped is increasing at an alarming rate owing to the rapid population growth and various other reasons. Dr. (Miss) G.R. Banerjee observed that:

"Physically handicapped children have been found in all times and climes. Their number in our country to-day appears to be greater than even before. This increase may be due to the general rise in our population. Or it may be that due to the advancement of the science of medicine and surgery, many more people who in earlier generations would have succumbed to accidents or diseases are now able to survive in spite of their crippling conditions than was possible about a century ago".

The terms "physically handicapped" and "disabled" have been defined in various ways by various authorities. The Government of India (1951-61) defines orthopaedically handicapped persons as those whose physical capacity is impaired by the loss, deformity or paralysis of one or more limbs. They are the victims of diseases or injuries which though cured leave behind a certain disability which is permanent and life long.

Nimbakar (1965) defines orthopaedically handicapped persons as those who have a deformity of one or more of their four limbs which is due to disease, accident, an ailment of the locomotor apparatus, especially affecting the limbs, bones, muscles and joints or an amputation.

Taylor and Taylor (1970) define orthopaedically handicapped as those who have a physical defect or deformity which causes an interference with the normal functioning of the bones, muscles and joints.

According to Bhatt (1963) the chief causative factors of crippling are:

- (A) Hereditary
- (B) Congenital, and
- (C) Acquired.

(A) Hereditary: A hereditary defect is one that passes down from generation to generation because of some sort of disturbance in the working of inherent gene mechanism.

(B) Congenital Defects: Congenital defects are those that are present at birth.

The most common among the congenital defects are: hare lip and cleft palate, webbed fingers, club foot, bow leg, dislocation of the hip, missing bones and amputations.

(C) The term "acquired defects" includes many conditions. The defects may be acquired due to (1) birth injuries, (2) pathological conditions and diseases, (3) accidents, (4) nutrition deficiencies, (5) defective postures, (6) consequences of war, (7) poverty and (8) other causes.

(1) Birth Injuries: Many of the brain disabilities result from birth injuries. Premature birth, caesarean birth, long and difficult labour, precipitate birth, haemorrhage, improper use of forceps and of anaesthetics and drugs, such as morphine, may result in severe brain injuries like brachial palsy or cerebral palsy.

(2) Pathological conditions and diseases: Infectious diseases like whooping cough, measles, scarlet fever, meningitis, encaphalitis, tuberculosis of bones and joints, and poliomyelitis, typhoid, influenza or encephalitis are likely to result in crippling.

The classical causes of crippling are cerebral palsy, poliomyelitis, and tuberculosis of the bones and joints. Other widely prevalent conditions are: rheumatism, arthritis, paraplegia, hemiplegia and osteomyelitis. Some diseases which are rare but significant are: multiple sclerosis and muscular dystrophy.

(3) **Accidents:** Disabilities resulting from accidents, such as industrial, traffic, falling on roads or slipping indoors, fire, crackers and other explosives, dangerous acrobatic feats, adventurous games, kite flying etc.

(4) **Nutrition Deficiencies:** Low resistance against diseases due to poor diet and nutrition deficiency which may result in disablement.

(5) **Postures:** Poor posture is caused by general debility, malnutrition, fatigue, repeated and prolonged infections, such as adenoid and tonsil infections, deformities, such are caused by rickets, poliomyelitis and bone T.B., defective vision and audition, wearing of badly-fitted clothes, sitting too long in uncomfortable chairs, and sleeping in a sagging bed.

(6) **Consequences of War:** Permanent disablement caused by war.

(7) **Poverty:** Poverty with ignorance and disease results in disablement.

(8) **Other Causes:** Of physical disabilities are illiteracy, shortage of medical personnel, want of requisite institutions, traditional fatalism of the Indian masses and fear of the surgeon's knife.

The magnitude of the problem has been shown by the fact that there are millions of children with physical handicaps.

A number of researches concerning clothing for different disabilities and age group for handicapped children have been conducted in Western countries, however this aspect has been overlooked in India. Therefore, a need was felt for planning a research to fill up the research gap.

Specific Statement of the Problem

The purpose of the study was to develop designs for garments to meet every day clothing needs of the children with different disabilities; after obtaining information from parents about disabilities and clothing problems of their handicapped children.

To construct garments that were comfortable and had easily manageable fasteners and enlarged openings that could be closed by the children with limited range of joints and weak finger actions.

To allow extra fullness and reinforcements for accommodating orthopaedic appliances.

To design garments according to current style and fashion to meet the physical and psychological needs of the handicapped children.

Assumptions

The study was undertaken on the basis of the following assumptions:

Specific features in garments could help the handicapped child to get more fun and comfort from his/her clothes, could help him/her to dress and undress himself/herself more easily and quickly, and make his/her home, school and social life easier.

Desirable features in garments could be achieved by making garments similar to those worn by other children in group in the school.

Suitable outer wear for the handicapped children was not available and therefore there was a definite need for specially designed clothing for such children.

Parents could be made aware of specific features in the garments that would help them provide proper clothes for their disabled children who could become independent in their dressing.

Limitation

The study was limited to the designs of garments suitable for children suffering from the diseases poliomyelitis, cerebral palsy, tuberculosis of the bones and congenital defects which render the children disabled or handicapped.