

SOME GARMENT DESIGN ATTRIBUTES THAT CONTRIBUTE TO PARENTAL
SATISFACTION AND DISSATISFACTION IN CLOTHING
THE PHYSICALLY HANDICAPPED CHILD

by 6791

CHERYL LYNN WILCH JORDAN

B. S., Kansas State University, 1968

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

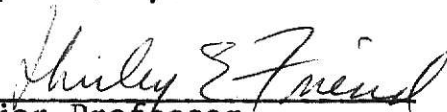
MASTER OF SCIENCE

Department of Clothing, Textiles, and Interior Design

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

Approved by:


Major Professor

LD
2668
T4
1971
J67
C.2

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iv
LIST OF TABLES	v
Chapter	
I. INTRODUCTION	1
OBJECTIVES OF THE STUDY	2
DEFINITIONS OF TERMS USED	3
II. REVIEW OF LITERATURE	4
REHABILITATION	4
THE SOCIAL AND PSYCHOLOGICAL SITUATION OF THE HANDICAPPED CHILD	6
The Self-Concept	6
The Importance of Clothing	7
Clothing and Child Development	8
Specific Clothing Needs of the Handicapped	10
SATISFACTIONS AND DISSATISFACTIONS WITH CLOTHING FOR CHILDREN	13
SUMMARY OF RELATED LITERATURE	15
III. PROCEDURES	18
POPULATION	18
SAMPLE	19
DEVELOPING THE QUESTIONNAIRE	20
INTERVIEW PROCEDURES	21
PRE-TEST	22
ANALYSIS OF THE DATA	22

Chapter	Page
IV. FINDINGS	24
DESCRIPTION OF THE HANDICAPPED CHILDREN	24
DESCRIPTION OF THE EVALUATED GARMENTS	25
RATINGS OF SATISFACTION WITH THE SELECTED GARMENT ATTRIBUTES	28
RESPONDENTS' COMMENTS CONCERNING SPECIFIC ATTRIBUTES	32
THE EFFECT OF HANDICAP ON THE RATING GIVEN OVER-ALL GARMENT SATISFACTION	34
THE EFFECT OF SEX AND GARMENT ON THE RATINGS GIVEN GARMENT DESIGN ATTRIBUTES	37
SUMMARY	38
V. CONCLUSIONS AND RECOMMENDATIONS	41
LITERATURE CITED	45
APPENDIXES	49
A. Questionnaire	50
B. Initial Questionnaire	54
C. Introductory Letter	59
D. Interviewer's Introductory Comments	61
E. Interview Procedure	63

ACKNOWLEDGMENTS

The writer expresses her appreciation to committee members Dr. Jessie Warden and Dr. Charles Hubbard for their interest and helpful suggestions. Special appreciation is extended to my major professor, Dr. Shirley Friend, for her suggestions, criticisms, encouragement, and guidance during the preparation of this study and the writing of this thesis.

To Mr. Ronald Iman and Dr. Arthur Dayton, acknowledgment is given for their suggestions and assistance in the statistical analysis of this study. Particular acknowledgment is made for the cooperation of the parents of handicapped children who so willingly participated in this study.

I am gratefully indebted to my parents, Mr. and Mrs. Clarence Wilch, for their financial assistance and understanding. Finally, I express sincere gratitude to my husband, Jim, for his patience, encouragement, and the maintenance of my morale.

LIST OF TABLES

Table	Page
1. Characteristics of the Physically Handicapped Children Studied	25
2. The Number of Everyday Garments Selected by Parents for Evaluation According to Severity of Handicap and Sex	27
3. Ordered Array of Mean Scores for Each Garment Attribute Studied and Indications of Signifi- cant Differences Among the Means Using Duncan's NMRT	29
4. The Mean Scores for Each Garment Attribute by Severity of Handicap	35
5. The Grand Mean Scores, by Sex and Severity of Handicap, for all Garment Attributes	38

CHAPTER I

INTRODUCTION

Every person wants to be of significance, to be of value as an individual. This is as true for the handicapped as for the able. Each person wishes to think of himself with some measure of satisfaction, and the satisfactions of personal appearance are particularly important.

It is estimated that there are twenty-two million individuals with physical disabilities in the United States. Each year 425,000 individuals are added to this group through accident and disease (31). Much is known about the physical aspects of disability; however, effective rehabilitation cannot be attained without additional knowledge of the handicapped person's psychological and social situation. Many authorities agree that one of the biggest problems for a disabled person is his own feeling toward the handicap and the attitudes and feelings of others toward him.

Clothing can play an important part in the rehabilitation process if the clothing needs of the handicapped are satisfied.

For most people, clothing provides a positive means of satisfying the need for self-enhancement. It can beautify the appearance, make the physical self more desirable, increase acceptance by the group, and prevent rejection. It may be a source of overt admiration, resulting in increased self-esteem, self-respect, self-confidence and security (15:105).

Studies on clothing for the physically handicapped person indicate that garments should be comfortable, easy to fasten, and becoming. Yet, if their clothing is different in appearance from

current styles, disabled individuals may tend to feel that it emphasizes rather than minimizes their handicap. Psychologists have found that it is important to conform to the style of dress adopted by one's peer group and this is particularly true for children (20).

OBJECTIVES OF THE STUDY

Several previously conducted clothing studies have dealt with the satisfactions and dissatisfactions of family members with their clothing, but little has been done to find the extent to which the physically handicapped are satisfied with their clothes.

The purpose of this study was to (1) investigate the feelings of satisfaction and dissatisfaction derived from three types of everyday garments worn by physically handicapped children as expressed by their parents and (2) to identify any specific clothing needs of handicapped children according to the severity of their handicap.

Assuming that parents are sensitive to the clothing likes and dislikes of their handicapped children, the following hypotheses were formulated:

1. There are no significant differences among the parent's ratings of satisfaction with each specific garment design attribute.
2. There is no significant difference between the ratings given by parents of severely handicapped children

and those of mildly handicapped children when evaluating over-all garment satisfaction.

DEFINITIONS OF TERMS USED

Certain words used in the study could be interpreted in various ways. The following terms are defined for clarity of meaning.

Everyday Garment: A garment worn by a child for his daily activities, for play, and/or school. In this study respondents were asked to describe one particular everyday garment: pants, a shirt, or a dress.

Severity of Handicap: For the purposes of this study the physically handicapped children were classified as either mildly or severely handicapped. Parents were asked to indicate the ways in which their child was handicapped from seven categories. These were: poor hand control, braces on legs, uses wheel chair, limited use of arms, uses crutches, poor bladder control, and other. Children handicapped in three or more of these ways were classified as Severely Handicapped, those children with two or less handicaps were considered Mildly Handicapped.

Garment Attribute or Characteristic: In this study 13 garment design attributes were chosen for investigation. The terms attribute and characteristic are used in reference to these selected design attributes. These particular garment design attributes were believed to be particularly important in clothing for the handicapped child (see Appendix A).

CHAPTER II

REVIEW OF LITERATURE

REHABILITATION

Historical accounts indicate that emphasis upon the philosophy of "the survival of the fittest" influenced the early treatment of the handicapped. Exposure, abandonment, and destruction were practiced to some degree in almost every country (9). Fortunately, this is not the adopted procedure today.

The current belief in the United States, regarding the handicapped child and rehabilitation is based upon the concept of the worthiness of the individual and upon the idea that every individual should have an opportunity to realize his full potential (9). Value is placed on understanding the problems experienced by the handicapped and on helping him to adjust to these problems. The American Home Economics Association has designed its special programs for the handicapped under two assumptions (34:408):

1. Every member of a democratic society has an inherent right to earn a living and make a contribution to society.
2. Society has an obligation to equalize, as best it can, the opportunities of the disabled and of the nonhandicapped to earn a living.

The United States Department of Health, Education, and Welfare (32:1) defines rehabilitation of the disabled as "a humanitarian endeavor having a salutary effect on both economic and social developments." Employment of the handicapped increases their

dignity and worth. The employed disabled person becomes a taxpayer rather than a tax consumer.

Jewson (17) expanded the definition of rehabilitation to include family and community aspects and their effect on the rehabilitation of the individual.

Rehabilitation in a broad sense involves the greatest possible restoration for the total person not his physical and vocational restoration alone but a total improvement of his adjustment to his environment. He can hardly be treated without taking his environmental and social situation into consideration (17:624).

The 1968 Amendments to the Vocational Rehabilitation Act (33) broadened the rehabilitation services to include family services when services to the family will make a meaningful contribution to the rehabilitation of the individual. New (21:130) stated that while patients are adjusting to new situations and living in the home, "their friends and relatives must also undergo a certain amount of adjustment." This adjustment made by family and friends can be most critical to the restoration of the disabled individual. Their attitudes toward disability can encourage the patient in the promotion of a positive self-image or one of deficiency and self-contempt.

Siller (27) pointed out that the goal of rehabilitation is always "directed toward promoting ego integrity and feelings of self-worth." Those involved in a rehabilitation unit must continuously shift operations to meet the physical, psychological, and social realities of the rehabilitant.

THE SOCIAL AND PSYCHOLOGICAL SITUATION OF THE HANDICAPPED CHILD

Human behavior is considered by Litman (18:552) as a complex "of three primary sets of influences: biogenic, sociogenic, and psychogenic." Most human reactions involve a complicated combination of all three influences. The fact that social and psychological factors may play an important part in the treatment of a patient has only recently been recognized.

The Self-Concept

The social and psychological needs of the handicapped child are the same as those for their physically normal counterparts. Cruickshank (6) explained that when the normal child is confronted by a barrier to achievement he develops substitute satisfactions, but substitute satisfactions are rarely possible to the handicapped child because his handicap bars his way in all situations. "The physically handicapped child many times feels that his social adjustment and acceptability is frustrated by the obviousness of his defect" (6:8). In our society where the "body beautiful" has attained high social value, Litman (18) pointed out that the disabled is often regarded by himself and others as inferior, not only physically but also as a person. The handicapped are faced with a serious situation because two of the basic psychological needs of man, that of self-esteem and social status, are not being satisfied.

Richardson, Hastorf, and Dornbusch have conducted several studies concerning the effect of disability on the self-concept

of the child. They found the "differences in self-descriptions between children with and without handicaps reflected the functional restriction of physical activity, deprivation of social experience and the psychological impact of the handicap" (25:893). Interviews indicated the handicapped children were quite realistic in their self-descriptions. They have the same values as those of their peers but they are aware that they cannot live up to the expectations. They also found that physical disability does not have the same consequences for boys as for girls. Girls turn to non-physical activities, but this is less acceptable for boys because physical activity is more highly valued. The disabled child seems to receive less social and interpersonal experience, less responsibility, more maternal nurturance and protection, and have less esteem for himself than the non-disabled child.

Stolz (28) emphasized that although physical appearance is but one aspect of personality, it is the simplest and most obvious symbol of the self. First impressions are made on the basis of personal appearance. Children desire to be like their friends, and their awareness of being different tends to modify their thinking and behavior. Learning to accept handicaps which alter personal appearance during childhood, when appearance is of consequence, affects an individual's personality development.

The Importance of Clothing

Many authorities agree that the role of clothing in an individual's life is a significant one. Clothes can alter one's personal appearance which influences the impressions he makes

upon others. They also affect the inner self, establishing feelings of confidence and security (20). Stone (29) discussed the importance of dress in reinforcing the self-concept. "As the self is dressed, it is simultaneously addressed, for wherever we clothe ourselves, we dress toward or address some audience whose validating responses are essential to the establishment of the self" (29:110). Trotter (31:405) stated that "clothing should enhance one's self-esteem and be psychologically satisfying." Clothes are useful in understanding one's self as well as one's relation to others.

Attractive clothes for the handicapped possibly could do much to promote a positive self-concept. The value of clothing for the physically disabled was expressed by Olive Bannister and Dorothy Behrens at the Seminar on Functionally Designed Clothing and Aids for Chronically Ill held in Cleveland, Ohio in 1966 (11:iii).

Today the thrust of rehabilitation is to minimize the handicap and emphasize the likeness to the nonhandicapped person. Surely special clothing designed to minimize a physical disability, to increase comfort and self-assurance should be recognized as a vital ally in the rehabilitation process. Unfortunately, it has not generally been recognized as such.

Clothing and Child Development. For the child, clothes may make growing up easier or harder. They may become an extension of self, a symbol of security, a means of identifying with someone, and a source of satisfaction (23).

Florence Young, author of the book Clothing the Child, discussed the child's clothing awareness (38). In the beginning the child has no conscious psychology in relation to clothes.

He responds only to the physical comfort which they offer. She stated that little observation is necessary to realize that reaction to clothes is an important factor even for very young children. They associate various garments with the activities and experiences for which they are worn. Children's sensitivities with reference to dress are often acute, and proper clothing gives a feeling of satisfaction and self-confidence that often enables the wearer to conquer a difficult situation.

Thompson and Rea (30) pointed out that color, design, and the cut of garments worn by the child contribute to his well-being. Wearing what his friends wear is of primary importance to his participation in group activities. Rea (23:718) emphasized this need to conform to the group, "Children are easily embarrassed, and an inferiority complex can be started by something seemingly insignificant as a garment which looks a little odd when compared to those of other playmates."

Authorities (24, 30) agree that clothing is also a means by which the child can achieve the independence required for development. If in dressing, he has the chance to succeed by himself, to acquire the sense of being able to handle some of the demands of everyday life, he can grow in constructive ways. This experience in responsibility is of particular value to the handicapped child. Children who are born handicapped have many burdens placed upon them by their environment, which set limits on their development. If the child can manage to dress himself he gains independence and confidence in himself which in turn may help him gain independence in other activities of everyday living (4).

Specific Clothing Needs of the Handicapped. Hallenbeck

(14) divided the disabled person's clothing needs into two classes: physical and psychological. "Physical needs concern such matters as self-help in dressing, comfort, the elimination of strain on fabrics: psychological needs include attractiveness of clothing and the feeling that one is not set apart from the group by the clothing one wears" (14:34). In an effort to deal effectively with clothing problems the clothing panel of the Disabled Living Activities Group (8:6) developed six categories:

1. clothing for disabled adults and adolescents able to at least partly dress themselves
2. clothing for young children other than babies
3. clothing for those who have to be dressed
4. clothing for the incontinent
5. clothing made to resist wear from crutches and braces
6. clothing for babies and toddlers of handicapped mothers.

Hallenbeck (14) is an advocate of specially designed clothing for the handicapped, but mass-produced garments have not been widely accepted nor profitable. Cost, availability, limited style offerings, and lack of information about special clothing have hindered their acceptance. At the Seminar on Functionally Designed Clothing and Aids for the Chronically Ill and Disabled (November 9-10, 1966) it was pointed out that many handicapped and chronically ill persons have a negative concept of "special clothing" (11). The young person especially feels that these garments would emphasize their disabilities rather than minimize them.

Dallas (7:5) reported, "Although functional clothing has been designed, frequently it is not attractive for the young

figure or even in fashion." Dallas was concerned with the clothing needs of teenage girls and young adults with cerebral palsy. She interviewed both handicapped and nonhandicapped girls to determine what features in daytime garments were worn and preferred by the two groups. Results indicated that clothing features preferred by handicapped girls were similar to those worn by nonhandicapped girls. After consideration of their physical needs, preferences and need for peer acceptance, Dallas designed two garments for cerebral-palsied girls.

Clarice Scott (26) initiated a study to develop functional clothing to meet the daily needs of the homemaker. Seventy homemakers having ambulatory handicaps were interviewed concerning eight types of everyday garments. When asked about garment attributes they stressed durability as most important. Findings indicated that the homemakers generally were not aware of specially designed clothing for the handicapped. Lyman (19) encouraged the use of extension specialists to help handicapped homemakers solve their clothing problems.

Frescura (10) dealt with design, manageability, and wear of clothing for handicapped girls. She asked mothers and therapists to evaluate the garments she designed on appearance, comfort, self-help features, and durability. Mothers were found to be more critical of the appearance of clothes and were less concerned with self-help features. Helen Cookman (5), a professional designer, and Muriel Zimmerman developed a booklet which features functional and attractive garments for men, women, and

children. The handicapped have also created their own designs under the name Fashion-ABLE.

Clothing Fastenings for the Handicapped and Disabled is a booklet published by The Clothing Panel, Disabled Living Activities Group, Central Council for the Disabled (8). This publication describes some of the types of fastenings that are available, how they can be used, and some modifications that can be made to simplify dressing for handicapped persons. Self-Help Clothing for Handicapped Children (1) is a booklet that was prepared as a guide for parents and professional personnel who work with handicapped children. It offers suggestions in the selection and practical adaptation of clothing. The booklet illustrates all types of garments, underwear, outer apparel, and offers ideas for making them manageable for children.

Boettke (3) was instrumental in preparing Suggestions for Physically Handicapped Mothers on Selecting Clothing for Young Children. This booklet includes illustrations and discussions on self-help features, growth features, wear features, and easy-care features for children's garments. These clothing ideas were tested by handicapped mothers with normal children, but they are equally useful for children with handicaps. In 1963 Miss Boettke (4) interviewed parents to determine some of the problems and possible solutions to the clothing difficulties of physically handicapped children aged three to sixteen. The findings indicated that most of the child's clothing was purchased from department stores. Mothers were dissatisfied with these garments because they did not disguise or cover up any abnormalities and

there was no added room for movement or assistive devices and they did not make dressing easy for the child.

The preceding review indicates that the emphasis of work in clothing for the handicapped has been on self-help features, comfort, and durability of garments. Frescura (10) pointed out that although these were valuable goals to consider in designing clothing for the disabled individual, none may be the most important goal. Little has been done to determine which, if any garment attributes contribute to satisfaction or dissatisfaction in clothing the handicapped child. Many of the studies found that the handicapped wear ready-made garments designed for functionally normal persons. Much information has been published on the adaptation of ready-to-wear garments for the handicapped child. Do parents use these suggestions and do they find these garment modifications easy to make? It seems that information concerning the types of garments handicapped children enjoy wearing and their parents' feelings about these garments would be useful.

SATISFACTIONS AND DISSATISFACTIONS WITH CLOTHING FOR CHILDREN

Research in the area of clothing satisfaction has been concerned primarily with clothing of the nonhandicapped teenager, college student, and adult. Few studies were found that dealt with factors related to satisfaction in children's clothing.

In 1953 Blake, Glisson, and Tate (2) conducted a study regarding the practices and preferences of homemakers in relation

to clothing the preschool child. Mothers of children between the ages of two and five were asked about their preferences for style and fiber in children's garments. The findings indicated that the mothers consider specific factors when purchasing their children's clothes. Out of nine factors, these homemakers rated durability first, price second, and fit third in importance. All of the respondents had one or more fitting problems with their children's clothing. Fitting problems were most often associated with boys' clothing. When asked about their major clothing problems, 89 per cent stated the high cost of children's clothing; 38 per cent said the lack of growth features; and 15 per cent indicated that clothes were difficult to put on. This study did not attempt to isolate any specific garment attributes which might be general satisfiers or dissatisfiers in children's clothing.

An investigation made by Hunt (16) was conducted to determine what relationships exist among certain factors, such as color, texture, pattern, and style, generally assumed to influence children's clothing preferences. Relationships among the clothing factors and the additional factors of age, sex, and mother-child agreement were investigated. Mother and child agreement was found to increase with advancing age; significant differences were found only in cases of style and texture preferences but not color, saturation, or texture preferences.

In studying the problems consumers encounter in the purchase and utilization of shoes for boys, Phillips (22) found dissatisfactions in shoes related to wear service. Consumers indicated a willingness to pay more for shoes if they could be

worn for a longer period of time. Respondents indicated that fashion was unimportant in shoe selection for boys.

In Hall's (13) study of factors that contribute to satisfactions and dissatisfactions in the clothing of low income families, mothers indicated general satisfaction with their children's appearance and clothes. Although they seemed to have difficulty in expressing dissatisfaction with the garment as a whole, the women were able to list features and verbalize the factors that had brought dissatisfaction when asked about specific characteristics of certain garments. Hall (13) found that there was consistency in the mothers' reasons given for dislike. This was found to be generally true from garment to garment as well as from woman to woman. Children's garments studied were limited to shirts and blouses. This indicates a need to investigate parent-child satisfaction with various garments worn by children and particularly those garments which offer satisfaction to the handicapped child.

SUMMARY OF RELATED LITERATURE

The literature emphasized the importance of the self-concept and social interaction in the rehabilitation of the handicapped individual. His attitudes and those of other persons toward his disability are crucial to his rehabilitation. For the physically handicapped child, life is complicated. Growing up is a difficult process even without the added burden of physical disability.

The research indicated that clothing plays a significant role in establishing the identification of a person and aids in the formulation of impressions made upon others about that person. Comments made by others are essential for an individual in order to form his self-concept; these may be derived from evaluation based primarily upon appearance. If clothing could provide a means for minimizing disability, thus affecting an individual's conception of his appearance, it seems it could be of value in rehabilitation of the physically handicapped.

A review of pertinent literature concerned with clothing and child development illustrated the importance of clothing in molding the personality. The child's experience, both good and bad, with clothing may have a lasting effect on his personality. His need for peer acceptance is of great importance in his social development. When considering the specific needs of the handicapped child it must be remembered that he is, first of all, a child. The handicapped child has the same basic emotional needs as every other child. His needs for independence, achievement, and self-esteem are sometimes overlooked because it is easier to do things for him rather than to give him the guidance and time to try himself. The literature emphasized the value of self-help features, comfort, and durability of clothing for the handicapped. Specially designed clothing has received limited acceptance for various reasons and much of the information published concerning clothing for handicapped children suggested methods of adapting ready-made garments.

Studies dealing with satisfactions and dissatisfactions in clothing have been limited to clothing for the physically normal individual. Very little has been done to ascertain the satisfiers and dissatisfiers in clothing for either the nonhandicapped or handicapped child. The research conducted indicated that persons are able to list features and verbalize the factors that had been dissatisfactory when asked about specific garment attributes. Durability appeared to be an important consideration in the selection of children's wear by parents. However, the studies did not attempt to isolate garment attributes that might be satisfiers or dissatisfiers in clothing for children.

CHAPTER III

PROCEDURES

This chapter contains a description of the population, the sample chosen from the population studied, the development of the questionnaire and interview procedure, pre-testing the questionnaire, and methods used to analyze the data.

POPULATION

The population for the study was all students who were enrolled at the Capper Foundation for Crippled Children, Topeka, Kansas, during the Spring of 1970. At that time, there were approximately 100 physically handicapped children enrolled at the Foundation. The children were not all Kansans; those who came from out of the city and out of the state were classified as inpatients and resided in a boarding home adjacent to the Rehabilitation Unit. To be eligible for admission to the Foundation, the applicant must be referred by a physician. Final evaluation for admission was made by the Foundation on the basis of the applicant's rehabilitation potential and age. Because their rehabilitation potential was greater, the Foundation tended to select young children in preference to older ones. The children ranged in age from three to twenty years.

SAMPLE

Questionnaires concerning the clothing needs and practices of handicapped children were sent to the parents of children enrolled at the Capper Foundation in the Spring of 1970. Forty-nine of the respondents indicated a willingness to participate in future research concerning clothing for handicapped children. The sample for the study was taken from this group.

The interview procedure and questionnaire were designed to be conducted in the respondent's home, where it was felt that he (she) would feel most comfortable and that useful information could be gathered. Respondents were selected for participation according to the geographic location of their residence. Only those parents living within two hundred miles, in any direction of Kansas State University at Manhattan, Kansas, were asked to participate in the study. Introductory letters (Appendix C) were sent to 39 parents to elicit their participation. Of these, a total of 32 were interviewed. Twenty-three of the respondents lived in or within twenty miles of Topeka, Kansas; three resided in Hutchinson, Kansas; one each lived in Holton, Kansas City, Salina, and Leavenworth, Kansas and two in Kansas City, Missouri.

Thirty-two questionnaires were filled out by these respondents and of these, 30 were used in the analysis of data. Two questionnaires were discarded because the respondents could not supply the information needed to complete the questionnaire. Each of the 30 questionnaires used in the analysis was filled out by the mother of the handicapped child.

DEVELOPING THE QUESTIONNAIRE

A questionnaire (Appendix A) was formulated in such a manner that it could be administered to the parent of the handicapped child to secure information concerning a garment the parent thought the child liked to wear for his everyday activities and the parent's feelings of satisfaction and/or dissatisfaction with this garment. It was designed with open-ended questions regarding garment description and the parent's awareness of his child's reasons for liking the garment. Some specific garment attributes believed to be important considerations in clothing for the handicapped child, were incorporated into a check sheet so that the parent could rate these specific attributes.

Graduate students in the Department of Clothing and Textiles and mothers of small nonhandicapped children were asked to fill out the questionnaire to test the clarity of the questions. Rating of garment attributes was first tried in terms of three classifications: Satisfactory, Indifferent, and Unsatisfactory. Some of these respondents felt that it would be easier and more indicative of their feelings to rate the attributes in terms of a five-point scale. Revisions were made based upon these suggestions. The questionnaire was redesigned to elicit responses rating each attribute in terms of five classifications: Most satisfactory, More satisfactory than average, Average satisfaction, Less satisfactory than average, and Most unsatisfactory.

INTERVIEW PROCEDURES

Members of the sample were sent introductory letters asking for their participation in the study two weeks before the interview (see Appendix C). Each potential respondent was then contacted by telephone to confirm his (her) participation and to schedule an interview. It was felt that it would be convenient and comfortable for the parent to be interviewed in his own home.

After the interviewer's introductory comments (Appendix D), the respondent was asked to describe one good and one bad experience her child had had while wearing particular garments or outfits (Appendix E). This information was exploratory in nature and was not analyzed as a part of this study. Next, the parent was asked to fill out the questionnaire regarding a garment she felt her child enjoyed wearing for his (her) everyday activities.

After completion of the questionnaire, the parents were asked probe questions regarding their responses in an effort to gather additional information concerning the reason for satisfaction or dissatisfaction. These interview proceedings were taped to obtain an accurate account of the conversation between interviewer and respondent. The conversation was transcribed and added to the information gathered from the questionnaire.

Information concerning the child's sex, age, and handicaps gathered from the initial questionnaire (Appendix B) sent to this same sample group in the Spring of 1970 was used in conjunction with the data gathered in this study.

PRE-TEST

The Federation for Handicapped Children, Manhattan, Kansas, was contacted to obtain names of parents who might be willing to fill out the questionnaire as a pre-test. Because of the small number of children enrolled at the Federation and the parents' lack of interest, two cooperating parents served as a pre-test for the questionnaire and the interview procedure. Pre-testing was done to be sure the questions elicited information applicable to the study, to determine the time required to administer the questionnaire and conduct the interview, and to provide experience for the investigator. Minor changes were made in the interview procedure as a result of pre-testing.

ANALYSIS OF THE DATA

A descriptive quantitative analysis, using numbers and percentages, was made of the information received from the question concerning garment description and those from the initial questionnaire dealing with age, sex, and ways the child was handicapped. Percentage figures were carried out two places and rounded off to the nearest whole per cent.

A statistical analysis was made of the ratings given on the 13 garment design characteristics and the over-all satisfaction score for the garment. Scores ranging from (1) Most satisfactory to (5) Most unsatisfactory were designated for each garment characteristic and the over-all evaluation, and were used to score the parent's expression of satisfaction. Only one

score per characteristic was recorded for each respondent.

The responses of each parent to the questionnaire were tabulated and transferred to coding sheets. Some of the garment design characteristics were not applicable to every garment or child, therefore, an unequal number of responses were received. Three-way unequal subclass analysis of variance tests were used where appropriate. Duncan's New Multiple Range Test (NMRT) (12:262) was used to detect any significant differences among the mean scores of the 13 characteristics and the over-all garment satisfaction score. The ratings given by parents of mildly handicapped children and those of severely handicapped children for over-all garment satisfaction were tested for significance, using a two sample t-test. Mean scores for each variable (sex, handicap, and characteristic) under investigation were computed by the Kansas State University Computing Center, using an IBM 360 computer.

CHAPTER IV

FINDINGS

The findings include responses on the questionnaire and a part of the information gained through interviews. Discussion of the findings has been presented under the following headings:

Description of the handicapped children

Description of the evaluated garments

Ratings of satisfaction with the selected garment attributes

Respondent's comments concerning specific attributes

The effect of handicap on the rating given over-all garment satisfaction

The effect of sex and garment on the ratings given garment design attributes

Summary

DESCRIPTION OF THE HANDICAPPED CHILDREN

In order to evaluate the data in true perspective it was necessary to consider some of the pertinent characteristics of the handicapped children studied. On the initial questionnaire (Appendix B), parents indicated their child's age, sex, handicap, and ability to dress. This information was updated by the parent during the interview conducted for this study.

Table 1 indicates that the group of physically handicapped children studied was diverse in several ways. The child's ability to dress appeared to be dependent upon the ways in which he was

TABLE 1
CHARACTERISTICS OF THE PHYSICALLY HANDICAPPED
CHILDREN STUDIED

Handicapped Child	Mild N=14		Severe N=10		Total N=30	
	No.	%	No.	%	No.	%
Age:						
3- 7	4	29	7	44	11	36
8-12	5	36	3	18	8	27
13-15	2	14	4	25	6	20
16-19	3	21	2	13	5	17
Sex:						
Male	6	43	10	62	16	53
Female	8	57	6	38	14	47
Ability to Dress:						
Able to dress self	9	64	1	6	10	33
Needs assistance	4	29	8	50	12	40
Cannot dress	1	7	7	44	8	27

handicapped rather than age. There were two exceptions; both mothers of three-year-olds reported that their child had not yet tried to dress.

DESCRIPTION OF THE EVALUATED GARMENTS

Parents evaluated one everyday garment worn by their child that they believed the child enjoyed wearing. The garment evaluated was a pair of pants, a shirt, or a dress. The specific garment was described by the parent in terms of fiber content, style features, and types of fasteners. This information was necessary since it was felt these factors might affect parental satisfaction with garment design attributes.

Most of the mothers chose pants for description and rating. Seventy-five per cent of the mothers of males and 50 per cent of those having a female child chose pants when answering the questionnaire. The pants described fell into two categories, jeans or slacks. Jeans were most often reported by mothers of males. Those of cotton or of a cotton and man-made fiber blend and designed with straight rather than flare or tapered legs were mentioned most frequently. Table 2 shows that the majority of mothers of females, choosing pants, selected those falling in the slacks category. Three of these mothers commented on the flare styling of the pant leg, no other leg styles were mentioned. The flare-legged pants may possibly have been a recent purchase and the mother aware that they were currently in fashion. Of the seven mothers reporting on pants worn by their daughters, five indicated that the garment had an elastic waistband and all but one pair of pants were made of a washable fabric.

The shirts and dresses represented 37 per cent of the evaluated garments. Shirts of washable fabrics were chosen by four mothers, each having a male child. One shirt was a knit pullover and the others were of a conventional woven fabric with front button closure. Dresses were the only garments made in the home. Five of the seven dresses evaluated had been home sewn. Several mothers stated that they could make garments to fit their daughters better than those they could buy ready-made.

It was evident from the garment descriptions that washable garments, many of them with a permanent press finish, were worn by the handicapped children for their daily activities.

TABLE 2

THE NUMBER OF EVERYDAY GARMENTS SELECTED BY PARENTS
FOR EVALUATION ACCORDING TO SEVERITY OF
HANDICAP AND SEX

Garments Evaluated	Males		Females		TOTAL
	MH	SH**	MH	SH	
PANTS	5	7	6	1	19
Style:					
Jeans	3	4	1	0	8
Slacks	2	3	5	1	11
Fiber Content:					
Cotton	2	1	1	1	5
Cotton & man-made fiber	3	6	1	0	10
Man-made fiber	0	0	4	0	4
SHIRTS	1	3	0	0	4
Style:					
Pullover	0	1	0	0	1
Button	1	2	0	0	3
Fiber Content:					
Cotton	0	2	0	0	2
Cotton & man-made fiber	1	1	0	0	2
DRESSES	0	0	2	5	7
Style:					
A-line	0	0	0	3	3
Yoke w/o waist	0	0	0	2	2
Waistline	0	0	2	0	2
Fiber Content:					
Cotton	0	0	0	3	3
Cotton & polyester	0	0	1	1	2
Man-made fiber	0	0	0	1	1
Wool	0	0	1	0	1

*Mildly Handicapped

**Severely Handicapped

RATINGS OF SATISFACTION WITH THE SELECTED GARMENT ATTRIBUTES

Parents were instructed to rate the garment they had described on the questionnaire with regard to their satisfaction with each garment characteristic appearing on a check list. There were five possible responses for each characteristic (Appendix A). Respondents were asked to check the one response which best expressed their satisfaction. These responses were scored on a five-point scale, the score of (1) being most satisfactory and the score of (5) representing most unsatisfactory. Parents' responses of low number (1) indicated that they felt the garment was most satisfactory in terms of a specific characteristic, while those of high number (5) indicated dissatisfaction.

The respondents' ratings for each garment characteristic were found to be highly skewed toward a (1) rating, indicating that most of the parents were satisfied with their child's garment when considering these specific attributes. Table 3, page 29, shows the mean score for each particular characteristic, including the mean score for over-all garment satisfaction.

In order to detect garment design characteristics which might be sources of dissatisfaction the mean score for each attribute was compared with the mean scores of all other attributes. An analysis of variance test was run to obtain an unbiased estimate of variance. Then a multiple comparisons test was applied to find any significant differences which might exist among the mean scores. As a result of Duncan's New Multiple Range Test (12:262) significant differences, at the .05 level,

TABLE 3

ORDERED ARRAY OF MEAN SCORES FOR EACH GARMENT ATTRIBUTE
STUDIED AND INDICATIONS OF SIGNIFICANT DIFFERENCES*
AMONG THE MEANS USING DUNCAN'S NMRT

Garment Attribute	Mean Score				
Ease in altering garment for child's needs	2.75				
Minimizes or hides handicap	2.40				
Soil resistance	2.29				
Placement of fasteners	2.16				
Ease in putting on and taking off garment	2.12				
Ease in opening and closing fasteners	2.03				
Durability	1.88				
<u>Over-all Garment Satisfaction</u>	1.88				
Room for movement or assistive devices	1.77				
Fit	1.75				
Wrinkle resistance	1.68				
Style of the garment on the child	1.50				
Ease of care	1.48				
Comfort	1.38				

*The mean scores parallel to the same vertical line are not significantly different from each other, but differ significantly from all other means at the .05 level.

were found among the mean scores. The first hypothesis, stating that there are no significant differences among the parent's ratings of satisfaction with each specific garment design attribute, was rejected. Table 3 shows the differences found among the means.

For purposes of discussion the attributes have been divided into three groups based on their placement in the ordered array and the statistical differences between their means. The first group was made up of attributes receiving the highest ratings; the second group was composed of attributes with means falling in the middle of the array; and the third group included those with the lowest mean scores (refer to Table 3). The first group, composed of attributes, ease in altering the garment for the child's needs, minimization of the handicap by the garment and soil resistance were found to have the least satisfactory ratings of all the attributes. This indicated that these parents of physically handicapped children found garments less satisfactory in these three aspects than any of the other characteristics.

Seven attributes and the over-all garment satisfaction score made up the second group or middle means in the ordered array (see Table 3). The over-all garment satisfaction score was included as the fourteenth attribute for statistical analysis. The location of the mean scores for durability and over-all garment satisfaction at the midpoint in the ordered array suggested that all attributes were equally weighed by the respondents when rating over-all garment satisfaction and that

durability probably was considered by these mothers to be an over-all satisfier. In other words, a garment's satisfaction rating possibly was determined by the garment's durability or how well it held up during wear and cleaning. This agrees with the study conducted by Blake (2) in which homemakers rated durability first in importance in selecting children's clothing.

Fit and room for movement also were included in this group of characteristics rated satisfactory and an explanation would seem necessary. The respondents rated the garment on fit and room for movement after it had been altered, if alteration was made, and garments which were home sewn were made to meet the needs of the individual child.

Group three, style of garment on child, ease of care, and comfort, had the lowest mean scores or the most satisfactory ratings. Possibly comfort was given the lowest score because parents found the child's comfort difficult to judge and/or assumed that since the garment was one which the child liked to wear, it must be comfortable. Highly satisfactory ratings for ease of care indicated that the mothers were pleased with the washable, permanent press finished fabrics of the garments.

Although significant differences were found among the ratings for these garment attributes, it should be noted that all attribute mean scores were of average satisfaction or better (rated most satisfactory).

RESPONDENTS' COMMENTS CONCERNING SPECIFIC ATTRIBUTES

Probe questions, as explained in Chapter III, were used to gather additional information concerning the extreme ratings of satisfaction and dissatisfaction for specific attributes. This study, unlike that of Hall (13), did not always find consistency in the mothers' reasons given for dissatisfaction. This inconsistency may be partly due to the small size and the diversity of the sample. Another fact also must be taken into account--frequently the handicapped child has a unique composite of problems and special clothing needs.

More mothers commented on the ease of altering the garment for the child's needs than any other attribute. The alterations needed often were complicated and tedious to make. Several mothers of males stated that seam allowances in pants, especially jeans, were not large enough to install zippers. Many also said that the fabrics used to make pants raveled easily, making alteration difficult. Zippers in the side seams at the waist often are necessary to facilitate toileting, while zippers inserted in the legs of pants made dressing easier for children wearing braces. An inset of additional fabric sometimes was inserted by the mother in the pant leg to increase the circumference to allow room for braces and for pulling pants on over shoes. The mothers stated that after these types of alteration were made their child could dress by himself or with a minimum of assistance.

The garment's ability to minimize the handicap was second in frequency of comment. Two parents felt that nothing helped to

hide their child's handicap. Some of the other parents felt that any type of clothing improved their child's personal appearance. A few of the mothers who sewed reported that they designed their daughter's garments with her handicap in mind. Mothers of females were more satisfied with the way the evaluated garment hid their child's handicap than were mothers of males.

Most of the mothers who described garments having a permanent press finish were pleased with the minimum of care required, durability, and the garment's resistance to wrinkling. However, a few mothers found that spots were difficult to remove from these fabrics with permanent press finishes.

Snap or grippers on garments were preferred by mothers rather than were buttons. A few of the reasons given for this preference were that grippers held up under repeated launderings; they did not need to be replaced as often as buttons; and the child could manipulate a snap or gripper while buttons often were difficult to fasten. Garments with front closures also were generally preferred, except for children having stiff or inflexible arms. Mothers of these children found garments with back openings easier to pull on over the child's arms.

The inconsistent sizing of children's clothing was a common complaint among mothers. Few garments were offered for the slim or chubby child so that several mothers had difficulty purchasing clothing that was suitable in style in the child's size. Finding pants and shirts made of soft fabrics posed problems for parents whose children had sensitive skin. Moderate clothing prices were desired by most parents. The prices and the

quality of garments offered by the three large mail-order chain stores in the United States were stated as most suitable by one-third of the parents interviewed. Cost was included in the garment description, but the range of prices paid for garments was so great that no conclusions were drawn concerning the average prices of these garments.

THE EFFECT OF HANDICAP ON THE RATING GIVEN OVER-ALL GARMENT SATISFACTION

A second objective of this study was to investigate any differences in parental satisfaction with a garment that might be due to the severity of the child's handicap. A three-way unequal subclass analysis of variance test was applied to compare the effects of sex, handicap, and characteristic upon the ratings given. The over-all garment satisfaction score was, as previously stated, entered as the fourteenth attribute for statistical analysis.

Results of the analysis of variance test showed that there was no significant interaction between the mean scores given each characteristic according to severity of handicap. No interaction implied that the parents of the mildly handicapped uniformly rated the garment attributes more satisfactorily than did the parents of the severely handicapped. The grand mean score (1.78) for characteristics rated by parents of the mildly handicapped was significantly lower, at the .05 level, than the grand mean score (2.05) for characteristics rated by parents of severely handicapped children (see Table 4). When comparing, by severity

TABLE 4
THE MEAN SCORES FOR EACH GARMENT ATTRIBUTE
BY SEVERITY OF HANDICAP*

Garment Attributes	Handicap		Total Sample
	Mild	Severe	
Ease in altering garment for child's needs	1.60	3.11	2.36
Minimizes or hides handicap	2.29	2.52	2.40
Soil resistance	2.38	2.23	2.31
Placement of fasteners	1.80	2.46	2.13
Ease in putting on and taking off garment	1.89	2.32	2.10
Ease in opening and closing fasteners	1.91	2.22	2.07
Durability	1.81	1.96	1.88
<u>Over-all Garment Satisfaction</u>	1.80	1.98	1.89
Room for movement or assistive devices	1.64	1.87	1.76
Fit	1.67	1.82	1.75
Wrinkle resistance	1.71	1.69	1.70
Style of the garment on the child	1.56	1.48	1.52
Ease of care	1.36	1.61	1.49
Comfort	1.44	1.36	1.40
<u>All Attributes**</u>	1.78	2.05	

*Results from an analysis of variance test.

**Significant difference at the .05 level, between means within the row.

of handicap, the ratings given each garment attribute, the mothers of the mildly handicapped gave better ratings more frequently than did the mothers of the severely handicapped. Mothers of the mildly handicapped were more satisfied with the described garments, considering all attributes, than were the mothers of the severely handicapped.

For the purposes of this study, over-all garment satisfaction, attribute 14, was analyzed separately. Results of a t-test indicated that the difference between mean scores for over-all satisfaction, according to handicap, was not significant at the .05 level, therefore the second null hypothesis formulated for the study was accepted. As a check on the over-all garment satisfaction rating, parents were asked if they would repurchase this garment they had described (Appendix A). Ninety-three per cent stated that they would replace the garment with a similar one, indicating that parents, regardless of the severity of their child's handicap, were satisfied with the garments they had evaluated. It must be noted, however, that the analysis of variance test implied that the parents of the mildly handicapped tended to rate all characteristics significantly more satisfactory than did parents of the severely handicapped. This trend would seem to be a better indicator of the difference between the ratings of satisfaction, as influenced by the severity of the child's handicap, than the over-all garment satisfaction rating.

THE EFFECT OF SEX AND GARMENT ON THE RATINGS
GIVEN GARMENT DESIGN ATTRIBUTES

It is believed that results of the analysis of variance test other than those directly related to the hypotheses of the study should be reported in this chapter. The relationships between sex and characteristic and sex and handicap are briefly discussed.

No significant interaction was found between sex and characteristic and sex and handicap. The effect of the child's sex on the mean scores by severity of handicap was proved to exist at the .05 level of significance. Parents of males, either mildly or severely handicapped, rated garment attributes higher (less satisfactory) than did parents of females regardless of handicap (refer to Table 5).

Parents of males possibly have more clothing problems than do those of females. Clothing for girls is much more diverse, in the types of garments such as pants, dresses, etc. that can be worn and in the number of styles offered, than is clothing for boys. Jeans, described most often for males, may pose more problems in altering and fit because of the intricate cut and construction. Pants, an accepted garment for men and boys in this society, make dressing more difficult, in many cases, than a dress would. Certain dress styles can camouflage a number of unattractive body features for an individual, whereas all pants are basically the same in cut and required fit.

Relationships between sex and type of garment and handicap and type of garment were tested for significance, using the

TABLE 5
THE GRAND MEAN SCORES, BY SEX AND SEVERITY OF
HANDICAP, FOR ALL GARMENT ATTRIBUTES*

Sex	Handicap		
	Mild	Severe	All**
Male	1.81	2.12	1.96
Female	1.61	1.67	1.64
All***	1.71	1.89	

*Results using an analysis of variance test.

**Significant difference at the .05 level, between male and female, regardless of the severity of handicap.

***Significant difference at the .05 level, between the mildly and severely handicapped, regardless of the sex.

analysis of variance test. Two of the three types of garments, shirts and dresses, were combined for analysis because they have similar features, such as sleeves, neckline, and fasteners and are worn to cover the upper body. Grouping was necessary because of the small number of shirts and dresses reported by the parents. No conclusions were drawn because the test results were believed to be invalid due to the grouping of the two garment types.

SUMMARY

The group of physically handicapped children studied were diverse in age and handicap. The children ranged in age from three to nineteen years. Fifty-three per cent of the sample were males; of these, 38 per cent were mildly handicapped and 62 per cent were severely handicapped. Fifty-seven per cent of the

females studied were mildly handicapped and 43 per cent were classified as severely handicapped.

Pants, made of a cotton and man-made fiber blend fabric, were described and evaluated by the greatest number of parents. Many of the evaluated garments had had a permanent-press finish applied to the fabric.

The parents' ratings of satisfaction with the selected garment attributes were skewed toward a (1) rating, indicating that most of the parents were satisfied with the evaluated garment when considering these attributes. A multiple comparisons test, Duncan's NMRT, showed that there were significant differences among the mean scores for the fourteen garment attributes. Parents were most satisfied with the garment's comfort and ease of care and least satisfied with the garment's ability to hide the child's handicap and the ease in altering the garment for the child's needs. Although significant differences were found among the mean scores for garment attributes, all ratings were of average satisfaction or better.

Comments made by parents concerning specific garment attributes revealed many of the problems mothers had experienced when altering garments. Garments with front closures, snaps or grippers, and of moderate price were the preferences of most parents.

Results of a t-test verified that the effect of the child's severity of handicap on the rating given by the parent for over-all garment satisfaction was not significant at the .05 level. However, the analysis of variance test indicated that

handicap tended to influence characteristic ratings. The mothers of the mildly handicapped had a tendency to rate garment attributes significantly lower (more satisfactory) than those of severely handicapped children when all attributes were considered.

The relationships between sex and handicap severity and sex and garment attribute also were analyzed, using an analysis of variance test. The test revealed that mothers of males both mildly and severely handicapped gave significantly higher (less satisfactory) ratings than did those of females in either handicap classification.

The above are the major findings of this study; the following chapter discusses the conclusions drawn from these results.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions reached as a result of this study would not necessarily be applicable to all parents of physically handicapped children, but are restricted to the selected population represented by these thirty parents whose children were enrolled at the Capper Foundation for Crippled Children at Topeka, Kansas during the Spring of 1970. However, it is believed that the information presented here might give some insight into the effect of a child's handicap upon parental satisfaction with selected garment design characteristics.

It was concluded that most of the parents in this study were most satisfied with the evaluated garment worn by their handicapped child for his daily activities. The fact that the parent was allowed to choose a garment for description and evaluation possibly may have limited the evaluation to garments that the parent, as well as the child, was reported to have liked. Also, parents may have been unaware that some other garments or garment attributes might be better suited for their child's needs.

Garment price was critical. Family income, expense of equipment and training for the handicapped child, and other factors were reasons for the parents' preference for moderate garment prices.

The comments made by the mothers revealed the lack of information concerning the alteration and modification of ready-

made garments for the handicapped. Parents generally were not aware of the available booklets, such as those discussed in Chapter II, that deal with some of the frequent clothing problems of the handicapped child. The knowledge of clothing specialists is needed to help the parents of handicapped children solve their individual clothing problems.

From the various reasons given for satisfaction and dissatisfaction with particular garment attributes it was concluded that each handicapped child has individual needs that must be considered. The results of Duncan's New Multiple Range Test did point out that parental satisfaction with garment durability possibly may be considered necessary for general satisfaction with a garment. The test also indicated that the parents in this study tended to weigh all of the selected garment design attributes equally when rating over-all garment satisfaction. Significant differences, at the .05 level, were found among the ratings given the garment design attributes. Therefore, the first hypothesis formulated for the study, stating that there were no significant differences among the ratings of satisfaction given for garment attributes, was rejected at the .05 level of significance.

The results of a t-test verified that there was no significant difference, at the .05 level, in the ratings of over-all garment satisfaction, according to the severity of the child's handicap; therefore, the second null hypothesis for the study was accepted. However, it was believed that the analysis of variance test revealed a more important trend concerning the effect of the child's handicap on the parent's ratings of garment attributes.

Considering all garment attributes, it was found that parents of the mildly handicapped had a tendency to give significantly more satisfactory ratings than did those of the severely handicapped. Thus, it may be concluded that the severity of the child's handicap may influence parental satisfaction with the garment design attributes studied.

It was generally concluded that the use of a five-point scale for rating satisfaction was of value, since the respondents frequently used the more than average category (see Appendix A).

In conducting this type of study to investigate an individual's reasons for satisfaction, an interview situation is recommended. It is also recommended that the respondents be asked all questions from an interview schedule rather than asking them probe questions after they have completed a questionnaire. Frequently the parents in this study seemed to have lost their train of thought, and the asking of probe questions seemed awkward.

In this study, parents of males tended to be less satisfied with the garment attributes than did parents of females. Research may be able to answer such questions as whether our society expects more of males than females or whether the physically disabled female is more acceptable in our society than the physically handicapped male. More research is needed to determine the types and characteristics of garments considered most satisfactory by handicapped individuals. Additional methods and procedures need to be developed to detect the individual's reasons for satisfaction or dissatisfaction. Information gathered

by communicating directly with the handicapped child about his feelings concerning his clothing would be most valuable. A study investigating the role of clothing in the rehabilitation process also would be enlightening.

LITERATURE CITED

LITERATURE CITED

1. Bare, Clari, Eleanor Boettke, and Neva Wagoner. Self-Help Clothing for Handicapped Children. Chicago, Illinois: The National Society for Crippled Children and Adults, Inc., 1962.
2. Blake, Evelyn, Oris Glisson, and Mildred T. Tate. "A Study of the Pre-school Child's Clothing in 100 Families of Radford, Virginia," Journal of Home Economics, 45, 3 (March, 1953), 179-186.
3. Boettke, Eleanor M. Suggestions for Physically Handicapped Mothers on Clothing for Pre-school Children. Storrs, Conn.: University of Connecticut School of Home Economics, n.d.
4. Boettke, Eleanor M. "Clothing for Children with Physical Handicaps," Journal of Home Economics, 55, 8 (October, 1963), 639-640.
5. Cookman, Helen, and Muriel E. Zimmerman. Functional Fashions for the Physically Handicapped. (Patient Publication III) New York: Inst. of Physical Medicine and Rehabilitation, 1961.
6. Cruickshank, William M. "The Impact of Physical Disability on Social Adjustment," Journal of Social Issues, 4, 4 (Fall, 1948), 78-83.
7. Dallas, Merry Jo. "Daytime Dresses for Teenage Girls and Young Adults with Cerebral Palsy," Unpublished Master's thesis, Colorado State University, June, 1965.
8. Disabled Living Activities Group, Clothing Panel, Central Council for the Disabled. Clothing Fastenings for the Handicapped and Disabled. London: Central Council for the Disabled, n.d.
9. Frampton, Merle E., and Hugh Grant Powell. Education of the Handicapped. New York: World Book Company, 1938.
10. Frescura, Lynda Glee. "Clothing for Girls with Specified Physical Handicaps," Unpublished Master's thesis, Oregon State University, June, 1963.
11. "Functionally Designed Clothing and Aids for Chronically Ill and Disabled," Proceedings of the National Seminar, November 9-10, 1966, Cleveland, Ohio. Vocational Guidance and Rehabilitation Services.

12. Fryer, H. C. Concepts and Methods of Experimental Statistics. Boston: Allyn and Bacon, Inc., 1966.
- + 13. Hall, Katherine B. "A Study of the Factors that Contribute to Satisfaction and Dissatisfaction in the Clothing of Ninety-two Urban Low Income Families," Unpublished Doctoral thesis, Pennsylvania State University, 1955.
14. Hallenbeck, Phyllis N. "Special Clothing for the Handicapped," Rehabilitation Literature 27, 2 (February, 1966), 34-39.
15. Horn, Marilyn J. The Second Skin. Boston: Houghton Mifflin Co., 1968.
16. Hunt, Lucille Aust. "A Developmental Study of Factors Related to Children's Clothing Preferences," Monographs of the Society for Research in Child Development, 21, 1 (1959), 3-47.
17. Jewson, Ruth H. "Relation of Handicapping Conditions to Family Relationships," Journal of Home Economics, 55, 8 (October, 1963), 620-624.
18. Litman, Theodor J. "Self-Conception and Physical Rehabilitation," Human Behavior and Social Pressures, ed. Arnold Rose. Boston: Houghton Mifflin Co., 1962, 550-574.
19. Lyman, Evelyn. "Interaction in Rehabilitation Programs," Journal of Home Economics, 59, 7 (September, 1967), 505.
20. Morton, Grace M. "Personal Appearance Values," The Arts of Costume and Personal Appearance. New York: John Wiley and Sons, Inc., 1960.
21. New, Peter Kong-Ming, Anthony T. Ruscio, and Linda A. George. "Toward an Understanding of the Rehabilitation System," Rehabilitation Literature, 30, 5 (May, 1969), 130-138.
22. Phillips, Angelene C. "Consumers' Preferences and Satisfaction in the Selection, Purchase and Utilization of Shoes for Boys Age Ten and Eleven Years," Unpublished Master's thesis, Ohio State University, 1961.
23. Rea, Lucille, "Clothing and Child Development," Journal of Home Economics, 42, 9 (November, 1950), 717-718.
24. Read, Katherine H. "Clothes Help Build Personality," Journal of Home Economics, 42, 5 (May, 1950), 348-350.
25. Richardson, Stephen, Albert H. Hastorf, and Sanford M. Dornbusch. "Effects of Physical Disability on a Child's Description of Himself," Child Development, 35, 3 (September, 1964), 893-907.

26. Scott, Clarice L. "Clothing Needs of Physically Handicapped Homemakers," Journal of Home Economics, 51, 8 (October, 1959), 709-713.
27. Siller, Jerome. "Psychological Situation of the Disabled with Spinal Cord Injuries," Rehabilitation Literature, 30, 10 (October, 1969), 290-296.
28. Stolz, Herbert R. "How Appearance Affects Personality," Parents' Magazine (January, 1942), 21-22, 34, 84.
29. Stone, Gregory P. "Appearance and the Self," Human Behavior and Social Pressures, ed. Arnold Rose. Boston: Houghton Mifflin Co., 1962, 86-117.
30. Thompson, Henrietta M., and Lucille E. Rea. Clothing for Children. New York: John Wiley and Sons, Inc., 1949.
31. Trotter, Virginia Y. "Dimensions of Home Economists in Rehabilitation," Journal of Home Economics, 61, 6 (June, 1969), 405-407.
32. U. S. Department of Health, Education, and Welfare. Rehabilitation of the Disabled in Fifty-One Countries. Washington, D. C., December, 1964, 194-202.
33. Whitten, E. B. "Rehabilitation Philosophy of Today and 1970's," Proceedings of the Interdisciplinary Workshop for Home Economics in Rehabilitation. University of Oklahoma, March 16-19, 1969. A.H.E.A.
34. "Workshop Overview," Journal of Home Economics, 61, 6 (June, 1969), 408-409.
35. Young, Florence. Clothing the Child. New York: McGraw-Hill Book Co., Inc., 1938.

APPENDIXES

APPENDIX A

Questionnaire

SATISFACTION AND DISSATISFACTION IN THE USE AND CARE
OF CLOTHING FOR THE HANDICAPPED CHILD

Please think of one particular garment, such as pants, a shirt, or dress which your child wears for his (her) everyday activities. This should be a garment that your child likes to wear. Briefly describe this garment (color, fabric, style features, and price). Sketch the garment if this would help to describe it.

Would you give some reasons why you think your child enjoys wearing this garment?

Rate the following characteristics of this garment according to how you, as a parent, feel about them. Please check () one of the columns for each characteristic listed.

Characteristics	Most satis- factory	More satis- factory than average	Average satis- faction	Less satis- factory than average	Most unsatis- factory	Comments
Ease of care						
Resistance of the fabric to show spots and dirt						
Ability of fabric to resist wrinkles and hold its shape						
Ease in putting on and taking off garment						
Ease in opening and closing fasteners						
Placement of fasteners						
Ease in altering gar- ment for child's needs						
Durability of the garment						
Room for movement or assistive devices						
Minimizes or hides handicap						
Style of the garment on the child						
Fit						
Comfort						
Other (specify)						

If you were shopping for a replacement would you look for another garment like this one?

_____Yes _____No

If the answer is no, what different features would you look for when buying a similar garment?

Do you know of any stores or catalogs from which you could purchase clothes designed for handicapped children?

_____Yes _____No

If the answer is yes, please give the name of stores or catalogs.

IN SUMMARY:

Indicate your general over-all satisfaction with the garment.

_____Most satisfactory
_____More satisfactory than average
_____Average satisfaction
_____Less satisfactory than average
_____Most unsatisfactory

APPENDIX B

Initial Questionnaire

CLOTHING NEEDS AND PRACTICES
OF THE HANDICAPPED CHILD

Many parents of children with physical handicaps encounter problems in providing clothing for their child. If we can pinpoint the problems you are having, perhaps more can be done to solve them. Will you please answer the following questions with your child in mind?

1. Child's age (to nearest year) _____
Sex _____
2. Ways child is handicapped: (Check all that apply)

_____ poor hand control	_____ limited use of arms
_____ braces on legs	_____ uses crutches
_____ uses wheel chair	_____ poor bladder control
_____ other (specify)	
3. Handicap is the result of:

_____ congenital condition
_____ disease
_____ accident
4. Handicap is considered to be:

_____ temporary
_____ long range
_____ permanent
5. What problems do you face in clothing your child?

_____ suitable clothes not available
_____ price too high
_____ improper fit
_____ design not adaptable to child's handicap
_____ durability and wearing quality poor

- ☐ lack of fashion in clothes suitable for handicap
☐ clothing difficult to put on and remove
☐ other (specify)
6. Which articles of clothing present you or your child with the greatest problems?
- | | |
|---|-----------------------------------|
| <input type="checkbox"/> underwear | <input type="checkbox"/> skirts |
| <input type="checkbox"/> sleepwear | <input type="checkbox"/> dresses |
| <input type="checkbox"/> slacks or trousers | <input type="checkbox"/> sweaters |
| <input type="checkbox"/> blouses or shirts | <input type="checkbox"/> coats |
| <input type="checkbox"/> other (specify) | |
7. Of these, the article he (she) has the most trouble with is:
- _____.
8. What improvement would you like in the way this garment is made?
- _____.
9. How do you get most of your child's clothes?
- ☐ from stores or mail order houses
☐ by purchasing clothes designed for handicapped children
☐ by sewing at home to adapt to disability
10. If alteration of clothing is required, it is done by:
- ☐ mother
☐ unpaid friend or relative
☐ paid tailor or seamstress
☐ other (specify)

11. Do you feel your child would benefit from having clothes designed with his (her) handicap in mind?
- _____ yes
- _____ no
12. Who picks out the clothing to be bought for your child?
- _____ parents alone
- _____ child alone
- _____ parents and child together
- _____ other
13. How does your child feel about his (her) clothing?
- _____ is indifferent to clothes
- _____ enjoys choosing clothes and wearing them
- _____ dislikes clothes and effort of dressing
- _____ forms attachments to favorite articles of clothing
- _____ other (specify)
14. Are you aware of any particular likes or dislikes your child has about his (her) clothing?
- _____ no
- _____ yes (specify)
15. Is your child able to dress himself (herself) as well as other children of the same age?
- _____ yes
- _____ no
16. If child dresses with help, what kind of assistance is required?

17. Please state below any problem you've had clothing your child that is not considered in this questionnaire.
18. We, of the Kansas State University Clothing and Textile Department, would like to talk personally with as many parents as possible in addition to having this questionnaire returned. The interview would be used to discuss your concerns in providing clothing for your child. Are you willing to be contacted by the persons conducting this study?
- _____ yes Phone number: Area _____
- _____ no

APPENDIX C

Introductory Letter



DEPARTMENT OF CLOTHING, TEXTILES, AND INTERIOR DESIGN
JUSTIN HALL

March 26, 1971

Mr. and Mrs. John Doe
Address
Topeka, Kansas 66600

Dear Mr. and Mrs. Doe:

We of the Clothing and Textiles Department at Kansas State University wish to thank you for your participation in the study made last Spring concerning the clothing needs and practices of the handicapped child. This information has been most useful in our efforts to solve some of the handicapped child's clothing problems.

We are now in the process of getting more detailed information to add to that obtained earlier. In a few weeks we will be interviewing parents. Because you indicated a willingness to be contacted again we are asking for your participation in this part of the study. We would like to talk with you about your satisfaction with the clothing your child wears. You will be contacted soon to arrange for a thirty-minute appointment in your home at your convenience.

You may expect my call, and I will sincerely appreciate your participation.

Sincerely,

Cheryl Jordan
Graduate Student

APPENDIX D

Interviewer's Introductory Comments

INTERVIEWER'S INTRODUCTORY COMMENTS

Hello, _____. I'm Cheryl Jordan from the Clothing and Textiles Department at Kansas State University. I talked with you on the phone a few days ago and made an appointment to discuss some of your concerns in providing clothing for your child. I would like to spend about fifteen minutes talking with you and then I'll ask you to fill out a questionnaire. As I told you over the phone the interview should not take over thirty minutes.

If you don't object I'd like to record our conversation. This is so I can remember the things that you say without trying to take notes while you're talking. Your name will not be associated with what you say. There are no right or wrong answers to the questions I'll be asking you--what is needed are the opinions of different people. I'd like for you to feel free to say what you think whether you believe anyone else would agree with you or not.

APPENDIX E

Interview Procedure

OUTLINE FOR INTERVIEW

I. Introductory Comments

This is the questionnaire you filled out last Spring. Would you look it over and let me know if there has been any change in your child's handicap.

I would like to ask you some questions about your child's experiences with clothing.

II. Child's Clothing Experiences

Can you think of a time in the past when your child felt especially good or bad about a garment or outfit he (she) was wearing. Describe the circumstances that led to this high or low point in his (her) feelings about this particular outfit. (WAIT FOR RESPONSE)

How long ago did this happen? Did these feelings cause you or your child to take any specific action or change your child in any way?

Now, would you think of a time in the past when your child felt especially bad (or good--depending on which type of experience is discussed first) about a garment or outfit he (she) was wearing.

(REPEAT QUESTION SEQUENCE ABOVE)

III. Questionnaire and Discussion

Next, I would like you to fill out a short questionnaire concerning a garment your child likes to wear for his (her) everyday activities. This can be either a

pair of pants, a shirt, or a dress. It should be a garment your child likes to wear. After you have completed the questionnaire I would like to discuss some of the questions with you. Feel free to ask any questions you may have as you are filling out the questionnaire.

(as the respondent turns to the second page of the questionnaire) On this part of the questionnaire we are asking for your opinion, as a parent, of the garment. Rate the garment characteristics according to your feelings of satisfaction or dissatisfaction.

IV. Completed Questionnaire Checklist

Is description of garment complete?

(dress or shirt)	sleeve style, cut of garment opening--front or back cut of neckline--collar fasteners
------------------	--

(pants)	type of waistband fasteners style features--pockets cut of pants
---------	---

(all garments)	fabric, color, care information
----------------	---------------------------------

Check the responses given concerning garment attributes.

Ask probe questions concerning responses of most satisfactory or most unsatisfactory to acquire more information about these specific satisfactions and dissatisfactions.

Probe Questions:

1. You indicated (checked) that the garment is rating in terms of (garment characteristic). Would you explain this?
2. What do you think causes that?

SOME GARMENT DESIGN ATTRIBUTES THAT CONTRIBUTE TO PARENTAL
SATISFACTION AND DISSATISFACTION IN CLOTHING
THE PHYSICALLY HANDICAPPED CHILD

by

CHERYL LYNN WILCH JORDAN

B. S., Kansas State University, 1968

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Clothing, Textiles, and Interior Design

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

The study investigated satisfaction and dissatisfaction derived from everyday garments worn by physically handicapped children as expressed by their parents. It was hypothesized that there would be no significant differences among the parents' ratings of satisfaction with each of selected garment design attributes and no significant difference between ratings given by parents of mildly handicapped children and those of severely handicapped children when evaluating over-all garment satisfaction.

Thirty parents of children enrolled in Capper's Foundation for Crippled Children, Topeka, Kansas, were interviewed. The parents evaluated pants, a shirt, or a dress that their child liked to wear for everyday activities. They also indicated on a check sheet their degree of satisfaction with each of 13 garment design attributes and their over-all satisfaction with the garment.

Analysis revealed significant differences, at the .05 level, among the ratings of satisfaction with each design attribute. The durability of the garment tended to be an indicator of over-all garment satisfaction. No significant difference, according to the severity of the child's handicap, was found between ratings of over-all garment satisfaction.

It was concluded that most parents were satisfied with the evaluated garment liked by their child. Each child had individual clothing needs to be considered. The severity of handicap may have influenced parental satisfaction with specific garment attributes, but did not influence over-all garment satisfaction.