

## Acceptance of Functional Garments for Paralytics

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**ABSTRACT** To help the paralytics to cope with their physical restrictions, garments were designed and constructed by incorporating the functional features in their most commonly used dresses. The garments were given to the respondents for three consecutive trials to assess their suitability and acceptability. The data highlighted that hemiplegic men, their care takers, care takers of hemiplegic women and paraplegic men had high level of acceptability for functional garments. Hemiplegic women and their caretakers had medium level of acceptability for functional garments. The 't' values indicated that there was a significant difference between acceptability level of hemiplegic men and their caretakers. The chi-square values indicated that age and educational status of the respondents, family educational status of caretakers and their income had significant association with acceptability level for the functional garments.

### INTRODUCTION

Appropriate clothing is very important for the physically impaired people for a number of factors. Functional clothing that is designed and constructed in accordance with physical limitation reduces dependence on others for dressing and undressing. It also makes contribution to the physical comfort, psychological well being and social acceptance. Socially acceptable clothing that reduces perpetual deviance promotes positive social interaction, thereby aiding in social and personal adjustments. As a result physically impaired individuals recognize the importance of special clothing in their lives because they often suffer from perceptible defects of body and movements which tend to set them apart in class of disabled by itself due to which they are not expected or encouraged to take full part in social life (Saiyidian, 1957)

To help the persons with disabilities to cope with their physical restriction and at the same time provide them clothes of their choice having social acceptance is very important. With these criteria in mind, clothing related problems of paralytics were studied. The study by Pruthi et al. (2003b), highlighted that hemiplegics encountered problems while dressing/undressing which were: slipping paralysed hand in

sleeves and removing them in case of kurta, fastening/unfastening of placket fasteners and cuff's fasteners of non paralysed side, tucking of shirt, slipping of paralysed leg in garments and removing them, setting of lower garments at waist, fastening/unfastening of pant's belt and fly's zipper, tying/untying of string. An earlier report (Pruthi et al, 2005) revealed that clothing related problems encountered by paraplegics were: slipping legs in garments and removing them, garment and bed wetting because of incontinence, bunching of garments causing discomfort, bed sores at pressure points and wounds due to traction belt To over come the problems of the paralytics, functional features were incorporated in their most commonly used dresses and tried. The present paper highlights the acceptability level of functional garments developed for hemiplegics and paraplegics.

### METHODOLOGY

In a study functional garments were developed for hemiplegics (males and females) paraplegics (male and females) after critically analyzing their clothing related problems. The constructed garments were given to 10 respondents of each category for three consecutive trials to assess their suitability and acceptability. The acceptability for the functional garments was measured through statements for which acceptability schedule was developed for the present study. A list of 30

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statements was formulated with reference to five attributes of functional garments i.e. ease in dressing/undressing, comfortability during wear, ease in construction and maintenance, sociological/psychological aspects and economical factors which were finalized with the help of ten Home Science experts who had rich experience in guiding post graduate and doctorate students. The observations of the respondents as well as their caretakers were recorded on three point scale as 'agree', 'some what agree' and 'disagree'. The score of each attribute was divided into three categories viz. high, medium and low for assessment of acceptability level. To assess the difference of acceptability level between the respondents and their care takers, mean score was calculated and 't' test was applied. To find the association of acceptability level with independent variables, chi-square was calculated.

## RESULTS AND DISCUSSION

### Acceptability Level for Functional Garments

*Hemiplegics:* Data pertaining to acceptability level for functional garments (Table 1) of hemiplegic men elucidated that acceptability level of 9 respondents and equal number of caretakers was high for 'comfortability during wear' whereas for all other attributes, number of caretakers having high acceptability level was more than that of respondents. On comparing the mean

score of the respondents and their caretakers for all other attributes, 't' values did not indicate any significant difference. However, the total mean scores of respondents and caretakers had significant difference.

It is evident from the data regarding acceptability level of hemiplegics women for functional garments that number of caretaker having high acceptability level for all the five attributes and garments in totality was higher than acceptability level of the respondents. The 't' values indicated significant difference between the mean scores of respondents and caretakers for 'ease in dressing/undressing' and 'sociological and psychological aspects'.

From the results it can be concluded that the hemiplegics had low acceptability level for functional garments than that of caretakers. Some reasons observed for higher acceptability level of caretakers for the garments during survey as well as trials were: hemiplegics were not ready to have any change in their existing dress pattern like males never wanted to switch over to *pajama* from *dhoti*. A few females did not want to adopt suits rather they never wanted to be independent in dressing/undressing as they were of the view that it was the responsibility of their children to look after them. On contrary the caretakers were very keen for adoption of functional garments for their convenience and they also wanted their wards to be independent. Another main reason was the type of ailment. The discussion with a

**Table 1: Acceptability level for functional garment of hemiplegics**

Attributes of functional garments	Acceptability level						Mean score		
	Respondents (n=10)			Care takers (n=10)			Respondents	Care takers	't' value
	High	Medium	Low	High	Medium	Low			
<i>Male Hemiplegics</i>									
Ease in dressing/undressing	1	4	5	-	7	3	4.20	4.90	.66
Comfortability during wear	9	1	-	9	1	-	9.90	10.40	.98
Sociological and psychological aspect	4	5	1	9	1	-	9.50	12.1	1.86
Stitching and maintenance	3	6	1	5	5	6	6.40	4.20	1.51
Economical aspect	4	3	3	9	1	-	35.00	9.50	1.84
Total	6	4	-	8	2	-	35.00	41.70	2.15*
<i>Female Hemiplegics</i>									
Ease in dressing/undressing	5	4	1	2	4	4	7.30	4.80	2.97
Comfortability during wear	6	4	-	8	1	1	10.90	9.20	0.09
Sociological and psychological aspect	1	2	7	7	3	-	11.20	10.20	3.39
Stitching and maintenance	3	4	3	6	2	2	7.10	7.60	1.88
Economical aspect	5	2	3	7	3	-	8.70	6.10	1.44
Total	4	6	-	7	2	1	46.50	37.90	1.09

\*indicates values are significant at 0.5% level

neurologist and occupational therapist highlighted that paralysis affects the mental as well as physical ability of the hemiplegics, which leads to frustration and the affected persons become stubborn in nature.

**Paraplegics:** From the data pertaining to acceptability level of paraplegics for functional garments (Table 2) it is evident that acceptability level of paraplegic men was slightly higher than that of caretakers for all the attributes of functional garments. Overall acceptability level revealed that 6 respondents and 5 caretakers had high acceptability level, both respondents and caretakers did not have much difference in their mean score which is evident from their 't' values.

It has been observed from the data that number of caretakers having high acceptability level was lower than that of paraplegic women for all the attributes except 'sociological/psychological' aspect. Overall acceptability level revealed that 9 caretakers and 8 respondents had medium level of acceptability. The 't' value indicated that there was only a significant difference in the scores for 'ease in dressing/undressing'.

From the overall acceptability scores of paraplegics and their caretakers it has been concluded that their acceptability was of medium level for functional garments. One of the major reasons observed was that the respondents could not wear lower garments independently because of numbness in their lower limb. Another major reason was that majority of the respondents

had very low income while some of them had no source of income and were living in *Ashram*. Above all, they were bed ridden and clothing was of least importance for them. Considering the intensity of problem, this class of handicapped population need special attention of their families, health departments, government and non-government organizations working for the welfare of the physically handicapped.

Pruthi et al.(2003a) found that overall acceptability level of calipers and crutches user children and their care takers was high for the functional garments but in case of amputees and their care takers it was also high.

### Bottom of Form

**Association of Acceptability Level for Functional Garments with Independent Variables:** Data pertaining to association of acceptability level for functional garments with selected independent variables has been depicted in table 3. It is evident from the chi-square values that age and education of respondents, family educational status of caretakers had significant association with ease in dressing/undressing as a parameter of acceptability level. Income of the caretakers had significant association with the comfortability of the garments. Sociological/psychological aspect of functional garments which influenced their acceptability level had significant association with age, education of the

**Table 2: Acceptability level for functional garment of paraplegics**

Attributes of functional garments	Acceptability level						Mean score		't' value
	Respondents (n=10)			Care takers (n=10)			Respon- dents	Care takers	
	High	Medium	Low	High	Medium	Low			
<i>Male Paraplegics</i>									
Ease in dressing/undressing	3	7	-	2	8	-	9.4	7.9	1.26
Comfortability during wear	10	-	-	7	3	-	10	9.7	0.55
Sociological and psychological aspect	3	5	2	2	7	1	7.2	7.3	0.7
Stitching and maintenance	5	4	1	4	4	2	6.9	6.4	0.42
Economical aspect	6	3	1	4	4	2	5.7	5	0.82
Total	6	4	-	5	5	-	37.2	35.1	0.75
<i>Female Paraplegics</i>									
Ease in dressing/undressing	2	7	1	-	7	3	6.6	5.1	2.22
Comfortability during wear	5	4	1	4	6	-	7.8	8.4	0.6
Sociological and psychological aspect	1	7	2	4	5	1	6.4	6.7	0.28
Stitching and maintenance	2	3	5	2	5	3	4.7	5.7	2.98
Economical aspect	3	2	5	2	3	5	4.3	3.8	0.61
Total	-	8	2	1	9	-	29.8	29.8	0

**Table 3: Association of acceptability level with independent variable**

S. No.	Factors affecting acceptability	Respondents				Care takers			
		Age	Education	Family educational status	Income	Age	Education	Family educational status	Income
1	Ease in dressing/ undressing	19.615* (0.001)	10.570* (0.032)	1.893 (0.755)	1.439 (0.837)	4.928 (0.295)	4.74 (0.315)	13.089* (0.011)	2.553 (0.635)
2	Comfortability during wear	6.055 (0.195)	6.754 (0.149)	1.751 (0.781)	1.619 (0.805)	8.099 (0.088)	3.915 (0.418)	6.448 (0.168)	12.408* (0.015)
3	Sociological and psychological aspect	16.669* (0.002)	10.627* (0.031)	8.814 (0.066)	3.111 (0.539)	1.781 (0.766)	11.711* (0.02)	10.920* (0.027)	14.887* (0.005)
4	Stitching and maintenance	4.302 (0.367)	13.266* (0.01)	6.272 (0.18)	7.363 (0.118)	2.231 (0.693)	1.573 (0.814)	7.729 (0.102)	3.684 (0.45)
5	Economical aspect	5.372 (0.251)	13.633* (0.009)	6.74 (0.15)	5.719 (0.221)	6.933 (0.139)	6.089 (0.193)	18.082* (0.001)	8.286 (0.082)
6	Total	16.686* (0.002)	20.758* 0	2.93 (0.57)	2.072 (0.723)	3.817 (0.431)	7.747 (0.101)	9.891* (0.042)	10.601* (0.031)

\*indicates values are significant at 0.5% level

respondents, family educational status and income of the caretakers. Stitching and maintenance of garments was significantly associated with education of the respondents. Economical factor as an attribute of acceptability parameter had significant association with education of the respondents as well as family educational status of caretakers. Age, education of the respondents and family educational status, income of the caretakers were significantly associated with overall acceptance of garments. Factors associated with the family for using functional clothing were studied by Lamb (1984) to plan strategies for their adoption.

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