

Clothing Need Assessment of Female Patients having Fracture in Lower Arm

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Received 20 Feb.2015, accepted on 20 Oct.2015

Abstract

Generally the patients with fractures of various natures need the clothes which are comfortable and easily maintainable. In view of this the present study was planned for female patients suffering from a fracture in the lower arm and elbow joint. An interview schedule was developed to collect the data regarding their body needs, problems faced by them, the preference for functional features as per the type of fractures. Five designs as per the need and preference of respondents were developed and evaluated by the panel of experts. Two designs were fabricated by incorporating the preferred functional features. From this study it can be concluded that designed clothes like gown, kameez, top and trouser were found comfortable; provide ease in donning and doffing and which makes them comfortable and self-confident.

Keywords: female patients, lower arm and elbow joint, functional features, comfortable garments

INTRODUCTION

Medically and ethically the use of clothing is providing protection, modesty, self-adornment and comfort. Clothing is a vital part of everyone's life and people wear different types of clothing for different situations and to cater different functions. Clothing should enhance an individual's self-esteem and be attractive to both the wearer and others. It should also be comfortable and appropriate for any physical requirements. In addition, it should be easily available at reasonable price. Arthritis, osteoporosis as well as accidents cause physical disorder in the bones. It's manifest in many clothing problems such as lack of comfort and unsuitable design. **Azher et al**, (2012) said that clothing is one of the basic needs of human life. It plays an important role in the development of an individual, which is equally true in the case of physically challenged. Adaptive clothing can offer arthritis women an easy, time saving and pain-free way to dress. **K, Neeti, et al** (2010) was carried out a study on "clothing requirements of physically challenged college going boys and designing suitable garments" Sixty respondents aged 15-30 years were purposively selected. Poliomyelitis was the main cause of disability among the respondents. Respondents were facing numerous problems in clothing while donning and doffing and due to assistive devices used.

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Nagpal and Sudha (2009) have also done research on ‘designing and evaluation of functional pants for lower limb amputated children.’ Clothing is one of the most personal components of daily life. Physical disability affects the type of clothing that can be worn. For handicapped, dressing is a very difficult and often impossible task. Thus, there is a great need to design clothing for handicapped and disabled. Respondents faced clothing problem i.e. frequent wear and tear of the garments at armpit level, donning and doffing of the garments, problem with fasteners, bunching of garment at under armpit due to crutches and raising of upper garments. Improper fittings of clothing create the significant problem for these temporarily disabled people, these problems were related to difficulty in manipulating fasteners, slipping the clothes over, donning and doffing and create hindrance in their routine activities. **Reich and Otten** (1996) had suggested for improving clothing design and provide dressing ease by inclusion of front opening, no give in waistline, ease in the shoulder area, larger opening for pants and skirts and larger armhole etc. **Rashmi** (1993) had reported for orthopedically handicapped women as they are using loose kameez has front half or full front opening with velcro tape or press buttons having a round shape at the bottom with just sitting length at the back and side slit with gathered sleeves were more suitable.

METHODOLOGY

This study was conducted on 40 female patients suffering from the fracture in the lower arm and elbow joint. Data was collected from different hospitals in Kanpur city. Pre-coded interview schedule was found to be appropriate tool to gather the information, which dealt with different type of fractures, existing clothing practices, problem faced by them with existing clothing, their preference of functional features etc. Keeping in mind the suggestions given by the respondents 5 designs of functional clothes was made as shown in Fig.4. Designs include functional features as per the fractured part of the body (Mann 1991). Designs were evaluated by a panel of 15 experts comprised of members from clothing and textile field and one member from orthopedic surgery. The two selected designs of functional garments were constructed and suitability of each functional garment was evaluated by five point scale (Premlata 1991).

FINDINGS AND DISCUSSIONS

Demographic Profile of the patients

Age of the respondents has been furnished in Table No.-1. The findings were revealed that the maximum respondents (55 per cent) fall in the age group 15 to 30 years, followed by 18 per cent in the age group of 30-45 years and above respectively. The educational level of respondents was categorized as, high school, intermediate, graduate and post-graduate. In this study maximum respondent (30 per cent) were found belonged to graduate, 27.5 percent, post-graduate, 25 percent and 17.5 percent intermediate and high school respectively.

Table No. 1: Distribution of respondents on the basis of their age and educational level****N=40**

S.No.	Age of Respondents	F*	%
i.	15 to 30	22	55
ii.	30 to 45	18	45
	Education Level	F*	%
i.	High School	7	17.5
ii.	Inter Mediate	10	25
iii.	Graduation	12	30
iv.	Post Graduation	11	27.5

*frequency

**** Total size of sample****Information Regarding fracture Type**

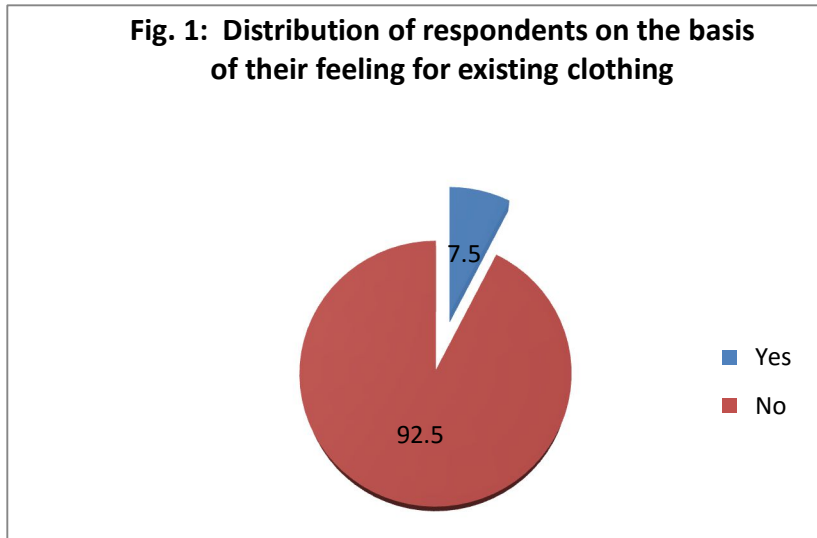
The findings were presented in Table No.-2, depicts that 20 percent respondents suffering from fracture in their lower arm, 14 per cent in elbow joint and 6 percent were having a fracture in the elbow as well as in the lower arm. Clothing problems and clothing needs of all these female patients were found almost same.

Table No. 2: Distribution of the respondents on the basis of fracture**N=40**

S.No.	Categorization of Respondents	F
i.	Lower Arm	20
ii.	Elbow Joint	14
iii.	Fracture in Elbow Joint as well as in Lower Arm	6

Satisfaction from Existing clothing

As the survey was conducted during the winter season, hence 92.5 per cent respondents felt uncomfortable in their regular existing clothes. They had reported that their clothes, create hindrance in their routine activities as shown in Fig. 1.



Clothing hindrance in various activities

As per Table No.-3, twenty six respondents out of 40 respondents were having a fracture in their lower arm and also said that their existing clothing create hindrance in their routine activities while 10 respondents were found suffering from a fracture in the elbow joint, as they felt difficulty in their routine activity as well as getting into the bed, whereas 4 per cent respondents having a fracture in both lower arms as well as in the elbow joint, were also reported difficulty only in getting into the bed.

Table No. : 3. Distribution of respondents as per the hindrance created by clothes in various activities

N=40

S.No.	Fracture	Activities		
		Routine activity	Routine activity and Getting in to the bed	Getting into the bed
i.	Lower Arm	26	0	0
ii.	Elbow joint	0	10	0
iii.	Lower arm as well as in Elbow joint	0	0	4

Activities needing help while dressing and undressing

Findings as shown in Table No.- 4 were also revealed that 26 per cent respondents suffering from fracture in lower arm, whereas they felt difficulty in putting on sleeve in garments, while 10 respondents had reported difficulties in all activities viz; putting on and taking of the garments, putting on sleeve, slipping the garments over and manipulating fasteners, whereas 4 respondents were having fracture in lower arm as well as in elbow joint, also stated about feeling difficulty in manipulating fasteners.

Kaur and Kaur (2004b) during her study entitled as 'study of clothing preferences of handicapped' in which she had found that most of the respondents were having an upper limb disability, the affected parts were upper leg and lower leg. Almost all the respondents had faced the problem during dressing and undressing which was mainly in putting on and taking off garments, putting on sleeves and in manipulating the fasteners.

Table No.: 4. Distribution of respondents on the basis of various activities in which they required help as per the fracture

N=40

S.No.	Fracture	Activities requiring help in wearing				
		A	B	C	D	ABC D
i.	Lower Arm	0	26	0	0	0
ii.	Elbow Joint	0	0	0	0	10
iii.	Fracture in Elbow Joint and as well as in Lower Arm	0	0	0	4	0

A-Putting on and taking off the garments

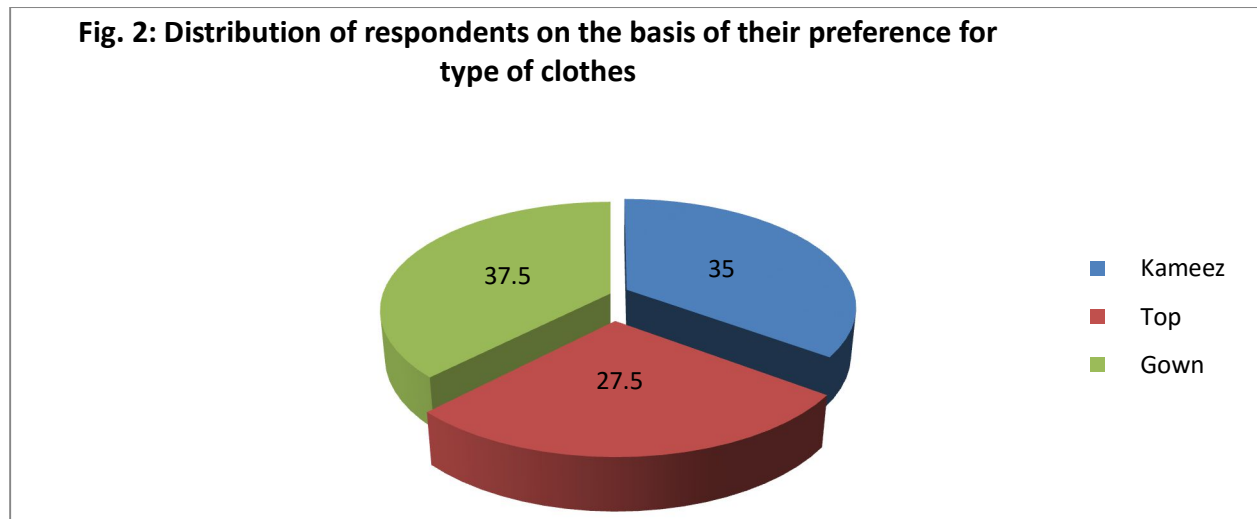
B-Putting on sleeve

C-Slipping the garments over

D-Manipulating fasteners

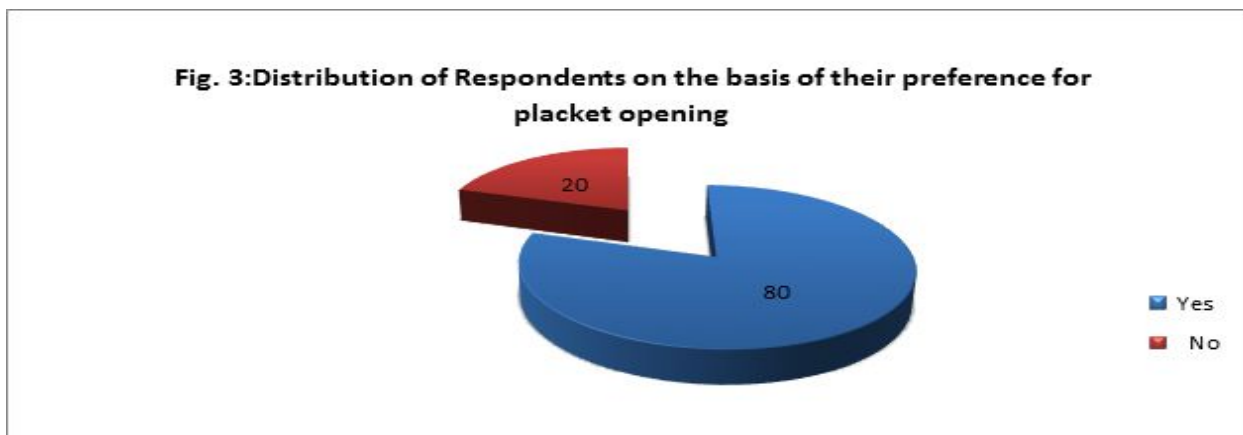
Preference for Type of Clothes

Fig. - 2 depicts that maximum respondents (37.5 per cent) had preferred gown followed by 35 per cent and 27.5 per cent respondents who had used to wear Kameez and top respectively, when they were suffering from a fracture in the lower arm and elbow joint.



Preference for placket opening

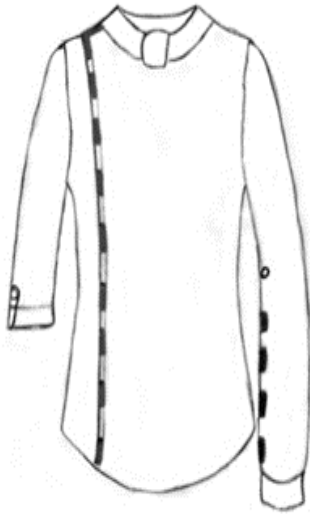
It was observed (Fig. 3) that 80 per cent of the respondents were preferred placket opening in their dresses as they felt that dresses with placket opening provides ease in dressing and undressing, only 20 per cent of the respondents did not prefer any placket opening as they did not want to open and close the fasteners.



Conclusion: - The present study gives a clear picture about the needs and problems with existing clothing practices faced by female patients with lower arm and elbow joint fracture. It can be concluded that the present study had helped in developing some of the useful, functional dresses for the female patients who are suffering from lower arm and elbow joint fracture at the same time these are easy to wear and provide comfort, and also provide ease in donning and doffing with routine activities.

Fig.-4:Developed Designs for Functional Clothes

Design no. 1



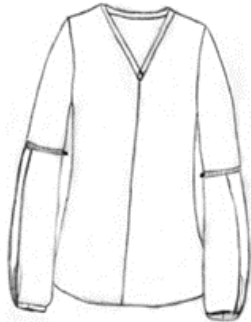
Top with Opening from elbow to Kameez with Opening on shoulder

Design no. 2



Cuff and folding sleeve and inner side of the sleeve

Design no. 3



Top having Detachable
armpit to elbow

Design no. 4



Kameez with Sleeve
Opening from Elbow to
Wrist

Design no. 5



Kameez with Opening
from elbow to armpit

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