

# An ergonomic saree design for geriatric women

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■ **ABSTRACT** : The human life span is increasing. The average in 80's was 48, in 90's increased to 59, in 2000 it was 66 and increases to 78 in 2010, bringing about a host of other related problems of care, food and clothing. Clothing is the second skin of human beings. It is an important issue throughout human life because of its protective and aesthetic functions. Clothing needs change at all ages. Due to advancement in technology the life span of human beings has been increased. Clothing needs have to be altered as per needs of the geriatric population of 70 to 85 years. Noticeable degenerative changes are visible in human body and mind during this age span. To name a few reduced mobility, stiff joints, weakness and many other diseases such as arthritis, incontinence, Alzheimer's, short term memory loss, organ failure, paralysis etc. Yet the desire to be looking and feeling normal can be resurrected with similar looking aesthetic clothing which is more functional in design and easy to wear and maintain. Saree has been redesigned for the older women having more functionality, with added comfort features.

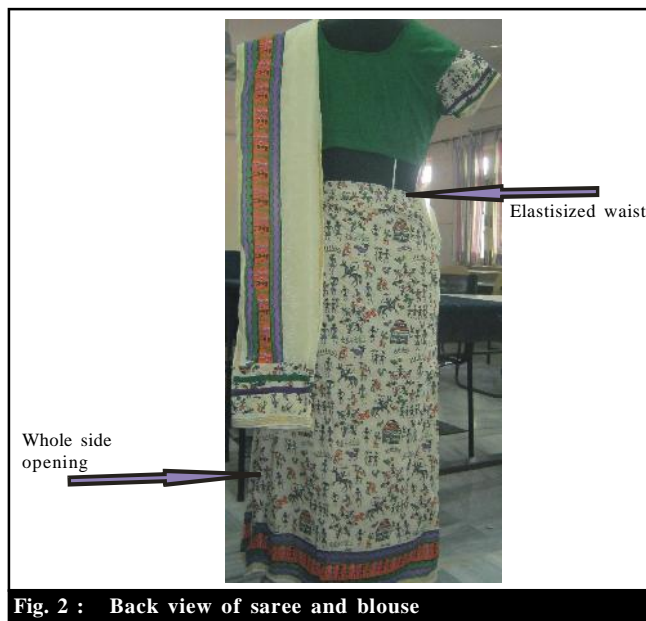
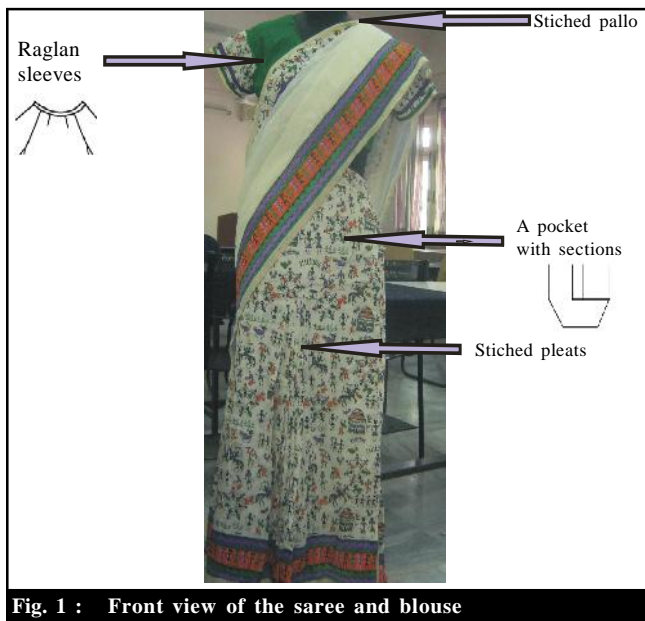
■ **KEY WORDS**: Clothing, Geriatric, Functional

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The old age person especially one receiving special care is known as geriatric. The age of 60 was generally seen as the beginning of old age and continues till death (Roy and Russael, 2006). Old age is characterized by declining physical capacities which is usually associated with many diseases such as, Alzheimer's, arthritis, incontinence, decrease mobility, weak eyesight, poor hand body co-ordination etc. which causes many other problems of clothing as their clothing needs are diverse and they have special requirements.

Clothing is a basic need and centre of interest in the lives of all people and for the elderly it can be an important source of psychological support. Clothing is a tool to enhance the self esteem and the individual establishment (Sule, 2004). It helps to gain respect and admiration from others. The elderly have desire to look like the same person they have been always. As the age advances body undergoes many physical, physiological and psychological changes most of which are degenerative. These changes affect the clothing requirement of old people and also their interest in clothing. The life of elderly people can be improved mentally and physically by a proper choice and design of clothing.

Clothing is a form of symbolic interaction with others; it is a non verbal means of communication. Dress serves as a tool of personnel communication and plays a role in the establishment of personnel identity. As women grow old and they find themselves unable to create the same image they have created all their lives because of the complex and time taking procedure of saree wearing, but they yet do not want their dress to interfere with what the perceivers understand of them. Appropriate clothing is very important for the Indian elderly women for a number of cultural and aesthetic factors. Even though it becomes difficult to wear the five and a meter long saree, the older women like to cling to the stereotype clothing due to the innermost desire to appear the same person they have always been. Many authors have studied the clothing related problem of elders. Studies show that they have problems in dressing and undressing which were wearing blouses due to frozen shoulders, stiff joints, fastening and unfastening of placket fasteners due to poor vision, setting of lower garments at waist and tying and untying of string etc. due to reduced mobility (Pruthi *et al.*, 2005). There is no doubt that clothing for elderly people have to be provided



**Table 1 : Garment design features**

**Designing features in blouse:**

Raglan sleeves	To facilitate comfortable arm and shoulder movement
Front opened blouse	To facilitate dressing and undressing
Big hooks and eyes in contrasting colours	To make them easy to see and use.
Snap buttons and Velcro tape at shoulder	To fix the pallu of saree easily.

**Designing features in saree**

Lesser fabric :	as the saree is ready to wear, lesser meters of fabric is to be carried in body, approx 3.5 mts.
Whole side opening :	To facilitate dressing and undressing.
Elastic at back and belt at front :	To provide comfort and adjust according to changing body dimensions, provide proper fitting and relief from tying and untying string.
A pocket with sections:	To keep glasses, phones, medicines, small diaries, keys etc. so they will not have to carry an extra accessory to carry all these essential items.
Stitched pallu and pleats:	to avoid the problems in making pleats and pallu, and pallu has a Velcro tape at predetermined point which would coincide with the Velcro at shoulder in blouse

**Table 2 : Assessment of newly designed saree**

Aesthetics	9
Functionality	9.1
Wear ability	8.5
Usage	8
Acceptance	8
Wearing time	1 minute
Functional usage	9 points

with specially designed functional features to meet their needs. Clothing management is a real time consumer for the care takers or family members who assist the elderly as it involves the supervision in dressing and undressing. There is a great need for clothing that will enable the elderly to become more independent in managing their own clothing (Naomi and Otten, 1991).

Functional clothing's are specially made to deliver a pre-defined performance or functionality to the user (Gupta, 2011). Functional clothing for elderly is designed so as to have a minimum inhibitory effect on movements and provide maximum comfort and performance to the user. The clothing should be self helped by the elderly person, should be becoming to the wearer and should help them look as much as possible like a normal person.

A saree and blouse is designed and constructed for the geriatric women so as to have a minimum inhibitory effect on movement and provide maximum comfort and performance while taking into consideration the aesthetic appearance. The saree and blouse is incorporated with openings which increases the dressing ease in most of which simplest form of fastener that is Velcro is used. The hooks and contrasting eyes even made the saree and blouse more comfortable.

#### Conclusion :

The newly designed saree was visually assessed by a panel of 10 judges in the department of Home science at Allahabad University. On a scale of 10, the saree was evaluated on the following attributes. It got a mean score of the following from all members.

The newly designed saree is user friendly and functional. To provide functional simplicity, Velcro has been used. The fastenings and the openings of the saree and blouse are fulfilling the elderly requirements and help to reduce the dressing and undressing difficulties. Elderly are like to keep important things on their own, usually on their body.

Therefore, more pockets for storage are provided. It helps to improve the sense of security. The colours and pattern in saree and blouse are providing good aesthetics to the garment. Whole side opening in the saree make it very easy to dress and undress, if the person is unable to stand for a long time this designing features help a lot. The elderly women found it very easy as no pleats and pallu are to be made, so no assistance is required while dressing and undressing this saree. Raglan sleeves in the blouse provide easy and comfortable movement. The contrasting colour of eyes were liked a lot as it reduces the time as well as the problem of locating them. So, the saree is functional without harming the aesthetics of the saree and blouse.

Thus, the newly designed saree and blouse can be used as a commercial product for geriatric women population and their quality of life can be substantially improved.

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