

## Interior of toilets, a cause of injuries among old age people

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### ABSTRACT

This study was planned to sort out the reason behind injuries occurring among old age people in their own home. For this purpose 200 families were selected who were having old age people of Pantnagar and Rudrapur. Research design used for the study was descriptive and purposive sampling was used for data collection. Results showed that there was a lot of reasons present in the interior of their toilets due to which accidents occurred with the old age people.

**Key words :** Home environment, Anthropometry, Interiors of toilets ageing persons, Old age

The older one more likely he or she is to spend every moment at home. Taking into account the prolonging of human life, it is certain that the home environment issue will affect more elderly people and its implications nationwide. A home may generally be divided into a number discrete areas which include bedroom, kitchen, living room, bathroom and others. Each area has special functioning work task and it is thus, necessary to design functional areas which do not impede the profile of an ageing user. Most of us regard homes as a safe place, but accidents often occur in and around the home. The homes need to be designed to promote familiarity and orientation with the environment. An ergonomic approach and gerontechnology would improve the relationship between the ageing user and the home environment.

Falls are common among the elderly and often lead to less of independence or even death. According to a Yale University study, the rate of falls among people aged 65 or older is about 30%, among patients aged 80 or older, the rate is 50% (Gill *et al.*, 2000), of the elderly who do fall, about 10% sustain a serious injury such as fracture, joint dislocation or severe head injury. Falls or fall related injuries are also associated with joint pain, loss of confidence, functional decline of placement in a home. Most seniors want to "age in place" (Bayer and Harper, 2000). However, houses designed for families may be hazardous or downright unsafe for an aging, frail person (Steinfeld and Shea, 2001).

### METHODOLOGY

In the present study descriptive design was planned to study the interior of toilets and occurrence of accidents

among old age people. The study was conducted in two regions of Uttarakhand state *i.e.* Pantnagar and Rudrapur blocks of Udham Singh Nagar district. The whole list of families of Pantnagar and Rudrapur blocks was made who have old age people then out of that list, the families were chosen randomly until the total sample size of 100 people each from both the blocks were selected. Now there were 100 old age people from each block thus, altogether making total size of 200 people of old age may have accidental problems due to the interiors present in their toilets.

### RESULTS AND DISCUSSION

The interior design of the toilets of 200 families were surveyed and it was found that the people were trying to chase the modern style of interiors without taking into consideration the limitations of old age peoples.

It can be seen from Table 1 that 87 families out of 200, were having tiles on the floor of toilet which cause fall and slip among old age people as in this age the people were not having the command over their nerves. In spite of that people don't think about the fixtures which must be present in the toilets, like handles near the toilet, seat to hold during standing, as the old age people were not able to stand themselves without support, due to which they stand with the help of door handle, tap or wall. Besides this, there were 92 families who were having raised platform in their toilet, which was also one of the reasons of falling among them.

Still there were families who were having Indian toilet in their home whereas now a days joint problem is very common, which doesn't allow the people to sit in squatting

Table 1 : Distribution of respondents as per the interiors present in their toilets		
Criteria	Frequency	Percentage
<b>Toilet present in the home</b>		
Indian	100	50
European	20	10
Both	80	40
<b>Toilet prefer to use</b>		
Indian	60	30
European	120	60
Both	20	10
<b>Surface of toilet</b>		
Raised platform of one step	92	46
More than one stairs	45	22.5
In the level	62	31.5
<b>Floor material</b>		
Simple	41	20.5
Marble	46	23
Stone	26	13
Tiles	87	43.5
<b>Fixture in the toilet</b>		
Handle at one side of wall	-	-
Handle at both sides of wall	-	-
Door handle	80	40
Tap	20	10
Wall	32	16

Table 2 : Clinical history of the respondents			
Criteria	Male F=100	Female F=100	Total F=200
Having joint problem	41 (41)	62 (62)	103 (51.5)
Able to sit in squatting posture	59 (59)	38 (38)	97 (48.5)
Problem in using Indian toilet	41 (41)	62 (62)	103 (51.5)
<b>Type of problem in using Indian toilet</b>			
Pain in knee joints	41 (41)	62 (62)	103 (51.5)
Numbness in feet	28 (28)	32 (32)	60 (30)
Numbness in calf muscles	14 (14)	21 (21)	35 (17.5)
Standing after sitting	41 (41)	62 (62)	103 (51.5)
<b>How problem occurs</b>			
After fall	4 (4)	5 (5)	9 (4.5)
After slip	6 (6)	33 (33)	39 (19.5)
After accident	13 (13)	4 (4)	17 (8.5)
After fracture	18 (18)	20 (20)	38 (19)

posture (Table 2).

Table 3 and Fig.1 showed that most of the people *i.e.* 51 per cent fell in the toilet due to having problem in standing after sitting in the toilet. Whereas 42 per cent people reported falling in the toilet due to having no support for standing and few of the people *i.e.* 15 per cent got fall in the toilet due to the slipperiness in the toilet floor (6% male and 9% female).

**Conclusion:**

In this way we can say that the interiors of toilets were not suitable for the old age people and also people were not giving them due attention. As the old age people

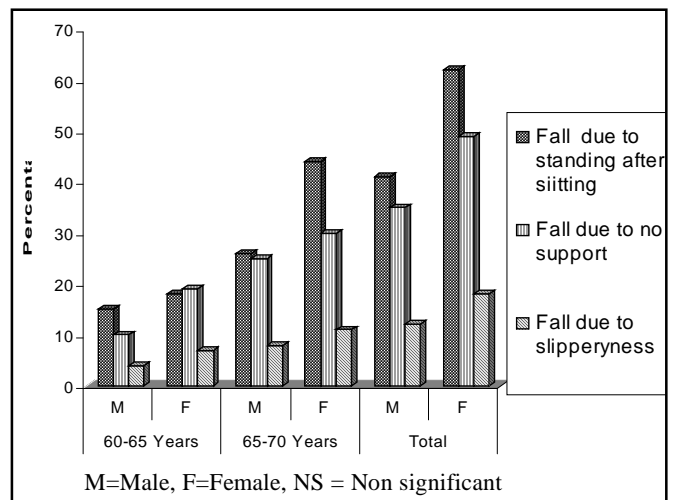


Fig. 1 : Age and sexwise occurrence of accidents

were having lot of limitations, due to which they fell and slip in their toilets. So, there is a need to think in respect of old age people while designing the interior of your home.

Table 3 : Age and sex wise occurrence of accidents							
Criteria	60-65yrs		65-70yrs		Total		Chi-square values
	M	F	M	F	M	F	
Fall due to standing after sitting	15 (15)	18 (18)	26 (26)	44 (44)	41 (20.5)	62 (31)	0.6466 NS
Fall due to no support	10 (10)	19 (19)	25 (25)	30 (30)	35 (17.5)	49 (24.5)	0.9404 NS
Fall due to slipperiness	4 (4)	7 (7)	8 (8)	11 (11)	12 (6)	18 (9)	0.0956 NS
Total	29	44	59	85	88	129	

Figures in parenthesis represent percentage

M=Male, F=Female, NS=Non Significant

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