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Requirements and suggestions given by the elderly population for residential interior modification

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Abstract

Requirement and suggestions given by the elderly population for interior modification in Dharwad were examined on 100 elderly. Data were collected using interview method. Findings of the study showed that the suggestions for modification were found to be storage in the house (40.00 and 34.00%), curtains for doors and windows (38.00 and 40.00%), two way switches near the staircase (36.00 and 32.00), exhaust fan in the kitchen (36.00 and 46.00%) found higher percentage of male and female sample respectively. However, suggestions for specious work counter was given by higher per cent of female respondents (54.00%). Similarly, suggestions for modifications in the bedroom of elderly population, equal per cent of male and female (44.00%) respondents have expressed to have relaxing chair in their bedroom generally reclined chairs are relaxing. Other suggestions were given by more number of male respondents viz., emergency bell near the bed (38.00%), comfortable soft mattress, music and TV facility (30.00% each). Comparatively suggestions for non-slippery flooring in the bedroom and for two way switches near the door and cot was given by higher per cent of female aged people i.e. 38.00 and 34.00 per cent to that of 34.00 and 28.00 per cent of male respectively. Further, suggestions given by male and female was analyzed as per the age groups more number of suggestions for both house and for bedroom were given by the 60-65 years of age group. However, age had no significant association with the age as it was not found to be significant statistically ($\chi^2= 15.64$ and 18.91). However, gender was found to have association with suggestions as χ^2 value was statistically significant at 0.05 per cent have, the observed value was not 17.07 for modification for the bedroom. Thus, suggestions for modifications in the house and in the bedroom differed for male and female but do not vary according to the age.

A good number of elderly both male & female in the present study have suggested few modifications / facilities. This reveals that they may be finding their present interior not comfortable & not a functional design. Hence, it is necessary to modify the interior of the respondents to reward them with safe & supportive surroundings.

Keywords: Work counter, Storage, flooring, light sources, grab bars, seating facility

1. Introduction

Geriatrics secured proof a house is as important as child secured house. Simple foresight can simplify the life of the elderly population. A little time spent reviewing and modifying the organization of a household may reward the elderly person with additional years of living safely in familiar surroundings. Assessing risk means carefully examining what in our work, could cause harm to the aged people. It involves weighting up whether we have taken enough precautions or should do more. So, it is about understanding what might happen and judging what to do as result. A scientific approach to develop evidence based risk assessment tool that predicts with high specificity which elderly inpatients will fall. Home modifications may also replace costly personal home care services and ease the need for the individual's relocation to a more supportive environment. The main purposes of assessment are the identification of specific risk factors for falling in elderly people. It can be avoided with common sense and inexpensive measures. A house may generally be divided into number of discrete areas that include bedroom, kitchen, living room, bathroom and others. Each area has special functioning work task, and it is thus necessary to design functional areas that do not impede the profile of an ageing user (Gitlin, 1995) [1].

The idea of housing modification is not new. In the early 1960s, the continuous action of good design and assistive devices could; enable an individual to cope with the environment more effectively (Lindsley, 1964) [2]. Home modifications are adaptations to living environments

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intended to increase ease of use, safety, security, and independence. Modifications can include: change or additions to the structure e.g. widening doorways, adding a first floor bathroom or a ramp, special equipment e.g. grab bars and handrails changing the location of items (moving furniture) and adjusting the way where activities are carried out (moving to a first floor, changing the use of room). Home modifications overlap considerably with assistive devices e.g. bath benches, which tend to be more mobile in nature and not attached to the structure of the house. In addition, home modifications for low-income persons often need to be accompanied by structural repairs e.g. fixing worn stairs to insure the usefulness of the modification (Pynoos *et al.*, 1987) [3]. Almost half of the modifications are made to bathrooms. The most common modifications include installation of grab bars, shower seats, and hand-held showers. These results support other research, which indicates that grab bars and extra handrails are the most frequent modifications installed in seniors' homes (Struyk, 1987; Wister, 1989; Louie, 1999) [4, 5, 6]. The objective of the present research was to document the suggestions for modification in the residential interiors for comfortable living of elderly in Dharwad.

2. Methodology

Field survey was conducted in Dharwad city of Northern Karnataka. A sample of fifty male and female elderly population each aged 60 years and above was selected on

random basis. Pre-tested interview schedule was used to get relevant information from the selected sample of 100 respondents. Frequency, percentages, and chi-square (χ^2) were used to analyse the data.

3. Results and discussions

Suggestions for modification in the house of elderly people are presented in the table 1.

Forty per cent male have suggested to make provision for extra storage in the house. While other suggestion given by them were, curtains for doors and windows (38.00%), two way switches near the staircase and exhaust fan in the kitchen (36.00% each) and medicine cabinet in the house and in their bedroom (32.00%).

Suggestions given by women elderly people were of different nature and also they differed in their percentage. More than 50.00 per cent of them (54.00%) had suggested specious work counter in the kitchen. However good percentage of the sample have given same suggestions give by their counterpart but with varied percentage viz., 46.00 per cent for exhaust fan, 40.00 per cent for door and windows, 34.00 and 32.00 per cent for extra storage in the house and two way switches near the staircase. For remaining suggestions, the percentage was less than 25 per cent among both the sample. Also it was revealed that gender had the association with the

Table 1: Suggestions given by elderly people for modification in their house

N=100

Suggestions for modification	Frequency		Chi-square	Total percentage	60-65 yr	66-71 yr.	72yr. to above	Chi-square	
	Male	Female							
Provision of extra storage in the house	20 (40.00)	17 (34.00)	17.071*	37	18 (48.65)	14 (37.84)	05 (13.51)	15.642 ^{ns}	
Installation of more light fixtures and fitting in house	14 (28.00)	16 (32.00)		30	15 (50.00)	12 (40.00)	03 (10.00)		
Door mat at the entrance	13 (26.00)	09 (18.00)		22	12 (54.54)	06 (27.27)	04 (18.18)		
Railings near door entrance	12 (24.00)	08 (16.00)		20	09 (45.00)	04 (20.00)	05 (25.00)		
More light at the entrance	10 (20.00)	11 (22.00)		21	09 (42.85)	09 (42.85)	03 (14.28)		
Storage under the stairs	13 (26.00)	04 (08.00)		17	08 (47.05)	06 (35.29)	03 (17.64)		
Two way light switches near the stairs case	18 (36.000)	16 (32.00)		34	18 (52.94)	12 (35.29)	04 (11.76)		
Curtains for doors and windows	19 (38.00)	20 (40.00)		39	18 (46.15)	17 (43.58)	04 (10.25)		
Bedroom for elderly should be on ground floor	10 (20.00)	05 (10.00)		15	08 (53.33)	03 (20.00)	04 (26.66)		
Rubber mats in bathing place in the bathroom	16 (32.00)	12 (24.00)		28	13 (46.42)	11 (39.28)	04 (14.28)		
Grab bars in the bathroom and toilet	15 (30.00)	12 (24.00)		27	14 (51.85)	08 (29.62)	05 (18.50)		
Exhaust fan in the kitchen	18 (36.00)	23 (46.00)		41	22 (53.65)	13 (31.70)	06 (14.63)		
Non slippery floor tile in the kitchen	10 (20.00)	13 (26.00)		23	13 (56.52)	07 (30.43)	03 (13.04)		
More natural light in the kitchen	06 (12.00)	06 (12.00)		12	06 (50.00)	05 (41.66)	01 (08.33)		
Seating facility in kitchen while working	12 (24.00)	14 (28.00)		26	16 (61.53)	09 (34.61)	01 (3.84)		
Specious work counter in the kitchen	12 (24.00)	27 (54.00)		39	12 (30.76)	10 (25.64)	03 (07.69)		
Medicine cabinet in the house and bedroom	16 (32.00)	11 (22.00)		27	11 (40.74)	12 (44.44)	03 (11.11)		
Total	234	224			222	158	61		
Mean	29.47	31.92			49.56	35.94	15.27		

*Significant at the 0.05 level of probability

** Highly significant at the 0.05 level of probability, NS. Not significant at the 0.05 level of probability

Figures in the parentheses indicate percentage

Table 2: Specific suggestions for modification in the bedroom given by elderly respondents

N=100

Suggestions for modification	Frequency		Chi-square	Total percentage	60-65yr	66-71yr.	72yr.to above	Chi-square
	Male	Female						
Store provision near the bed to keep necessary things (torch, medicine, reading, glasses)	-	11 (22.00)	28.374**	11	05 (45.45)	05 (45.45)	01 (09.09)	18.91 ^{ns}
Requirement of relaxing chair in the bedroom of the elderly	22 (44.00)	20 (40.00)		42	21 (50.00)	15 (35.71)	06 (14.28)	
Two way light switches near the door and cot	14 (28.00)	17 (34.00)		31	17 (54.83)	06 (19.35)	08 (25.80)	
Heater in the bedroom of the aged	17 (34.00)	08 (16.00)		25	13 (52.00)	08 (32.00)	04 (16.00)	

Require of book rack / shelf in bedroom	13 (26.00)	13 (26.00)		26	15 (57.69)	05 (19.23)	06 (23.07)
Installation of air condition in the bedroom	10 (20.00)	11 (22.00)		21	10 (47.61)	08 (38.09)	03 (14.28)
Comfortable soft mattresses	15 (30.00)	12 (24.00)		27	18 (66.66)	07 (25.92)	01 (03.70)
Music and television facilities in the bedroom	15 (30.00)	03 (06.00)		18	08 (44.44)	07 (38.88)	03 (16.66)
Emergency bell near the bed	19 (38.00)	10 (20.0)		29	11 (37.93)	12 (41.37)	06 (20.68)
Additional telephone in the elderly bedroom	09 (18.00)	08 (16.00)		17	06 (35.29)	08 (47.05)	03 (17.64)
Table lamps for spot light near cot	11 (22.00)	07 (14.00)		18	10 (55.55)	04 (22.22)	04 (22.22)
Non-slippery floor for elderly bedroom	15 (30.00)	19 (38.00)		34	12 (35.29)	07 (20.58)	04 (11.76)
Attach bathroom with western style water closet	08 (16.00)	11 (22.00)		19	08 (42.10)	09 (47.36)	02 (10.52)
Total	168	150			154	101	51
Mean	30.23	26.82			50.17	34.93	18.31

*Significant at the 0.05 level of probability

** Highly significant at the 0.05 level of probability, NS. Not significant at the 0.05 level of probability

Figures in the parentheses indicate percentage

Suggestions and chi-square value was significant (17.00%) at 0.05 per cent level. Thus male and female elderly people differed in their suggestions. These results are supported by the study conducted by Kutintara (1997), where almost half of the respondents (49.60%) changed a mattress and 47.80 per cent of them removed furniture that restricted their movements. More than one fourth of the respondents did the following modifications in their homes: installed blinds or curtains at windows (43.50%), increased volume of door bells or telephone ringers (38.00%), changed bathroom floor tiles to non-slip tiles (34.30%), placed a telephone near a sleeping area (26.30%), and installed more light fixtures in the kitchen (26.30%) in Thailand.

Further, when suggestions with age of the sample was studied, the association was not significant ($\chi^2=15.64$), however suggest was given more by the group of 60-65 year of age.

Between male and female, responses towards giving suggestions. More number of suggestion have come from female (mean percentage was 31.92%) while male (mean percentage was 29.47%). However the difference was not obvious. It is interesting to note that the more number of suggestion were given elderly people who were in the age group of 60-65 years (49.56 X %) and followed by 66-71 years of age (35.94 X %).

Similarly specific suggestions for modification in the bedroom of elderly was collected and presented in the table-2. More or less equal per cent (male 44.00 and female 40.00 percent of male and female aged people have expressed the requirement of relaxing chair in their bedroom. Need of emergency bell near the bed was expressed by 38.00 per cent of male respondents. Thirty per cent of male respondents each have given suggestions for comfortable soft mattress, music and T.V. facility and non-slippery floor for their bedroom.

Comparatively more percentage of (38.00%) female respondents have asked for non-slippery flooring for their bedroom, and two way switches near the door and cot (female 34.00% and male 28.00%). Here also similar trend was observed for association between gender and suggestion. The observed chi-square value was 28.37 and it was significant at 0.05 per cent level.

Regarding suggestions given by different age groups, most of the suggestions except, emergency bell (41.00%), additional telephone in the elderly bedroom (47.00%) and attach

bathroom with western water closet (47.00%) all others were given by 60-65 years of age.

However, age had no significant association with the suggestions and significant also above not significant.

4. Conclusion

This reveals that they may be finding their present interior not comfortable & not a functional design. Hence, it is necessary to modify the interior of the respondents to reward them with safe & supportive surroundings. It is essential to modify the interior features with grab bars in bathroom, soft door knob grips, door livers conversion covers for door handles, plug puller, tap turners, light switches etc whichever available on online marketing to make life of older adults life comfortable, secured and to enhance their capacities.

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