

CONSTRUCTION AND DIMENSION OF OLD AGE HOMES

SHEWANTI N. KASHYAP AND P. SHARMA

ABSTRACT

A home 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. The location of a house, construction methods, materials, finishes, appliances and maintenance all influence home safety. Incremental improvements to occupant health and safety can be achieved at every stage of the building design and construction process. Little research has been done on the role of the ergonomics and housing. The present study has conducted in two regions of Uttarakhand State *i.e.* Kumaon Haldwani block of Nainital district and Garhwal (Haridwar and Dehradun district). Fifteen elderly people from each selected old age homes Nirmala, (Haldwani block); Geeta Kutir and Virdh Sewa, (Haridwar), and Prem Dham (Dehradun) were selected randomly for the study. The old age room contain in living room (*i.e.* one habitat room used for living, sleeping, or eating purpose by single elderly people), separate bathroom and water closet, combined bath with water closet and storeroom. To test the significance difference between two means from two independent samples, two sample Fisher's test was used. The findings of Fisher's *t* values showed that the dimensions of habitat room were found in accordance with National Building Codes, whereas the separate water closet and store room were different from National Building Codes consequent to this especially the elderly females faced pain in their body parts due to postural stresses especially in store room. The average width of the doors of bath with water closets was 0.63 m which was observed to be far less than the standard recommended with width of 80 cm. Hence, it caused inconvenience to the elderly people.

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A home 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. The old age homes contain a living room (*i.e.* one habitat room used for living, sleeping, or eating purpose by single elderly people). Brink (1996) pointed out that most dwellings are not "senior-friendly" or barrier-free, and that those dwellings are designed without considering even the basic requirements of elderly residents, resulting in their exclusion from everyday life. The exchange between indoor and outdoor air profoundly affects contaminant levels in a dwelling (Esmen, 1985). The concentration of pollutants depends upon rates of production and removal, the source, and their dilution by ventilation (Lowry, 1989). Adequate ventilation is imperative to discourage humidity from reaching unacceptable levels (Collins, 1993). Healthy indoor environments with adequate fresh air ventilation were also proposed as a way to manage mite-sensitive asthma (Harving *et al.*, 1994). Scott Woodcock (2005)

pointed out that the most accidents occur in the home, but good building design can help to achieve a much safe and healthier living environment. The location of a house, construction methods, materials, finishes, appliances and maintenance all influence home safety. Incremental improvements to occupant health and safety can be achieved at every stage of the building design and construction process. Little research has been done on the role of the ergonomics and housing.

Hypothesis :

The following null hypothesis was formulated and tested:
Dimensions of old age homes have not relationship with National Building Codes.

METHODOLOGY

The study was conducted in two regions of Uttarakhand State *i.e.* Kumaon Haldwani block of Nainital district and Garhwal (Haridwar and Dehradun district). Old age homes *i.e.* Nirmala, (Haldwani block); Geeta Kutir and Virdh Sewa (Haridwar), and Prem Dham (Dehradun) were selected randomly for the study. The dimensions of old age homes were measured with measuring tape in metres. To test the significance