

Nursing Home: healthy environment?

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Keywords: elderly 1, housing 2, spatial needs 3.

1 Context

The unquestionable aging of the world's population made of the elderly the focus of studies of several areas of knowledge. Architects and designers, however, must jointly render their efforts in order to provide for better living standards based on spatial design, equipment and products adequate to the specific needs of said users.

The normal process of aging brings in physiological changes that affect the development of activities in several ways. The variability of the problems found require different environmental solutions, which are divided in three categories, as defined by Hunt (1991). The first of them - physical needs - are the best known of them and impact the design of sheltering institutions.

The object of this article is to ponder on spatial solutions that meet informational and social needs, which are little known by professionals of the field. For that purpose, it is necessary to theoretically resort not only to the categories described by Hunt, but also to studies of different authors regarding spatial accessibility, territoriality and social interactions.

2 Method

Basically, this is a review of the results found from our own surveys: two of them carried out in Brazil and two others that have been recently concluded in Belgium with the support of PIBC/CNPq, CAPES and the Roi Baudouin Foundation.

3 Results

The results of this review has been organized into three aspects, based on the spatial needs described by Hunt and the four components of spatial accessibility, as defined by Dischinger, Bins Ely and Piardi (2015).

The physical solutions guarantee the satisfaction of the user with regard to health, safety and comfort, and they are the easiest to be understood. They are caused mainly by modifications in the muscular-skeletal and cardiovascular systems that impact the physical strength, motor coordination and precision, posture and mobility. Accessibility solutions that aim at safe movement and use of equipment, which are components of the accessibility, are present in the majority of projects. In housing unit terms, there are still problems, mainly due to dimensional limitation in relation to furniture size, which causes difficulties to movement, and the disrespect of said furniture to the anthropometric and biomechanical characteristics of the users, which causes accidents.

Informational needs are related to the way the environmental information is processed. This occurs at two stages: perception (reception of information) and cognition (comprehension and assimilation of information). These spatial needs are caused mainly by modifications in the sensorial system (gradual hearing or visual degradation, for instance) and in mental activity (learning difficulties, lack of concentration, etc.). The informational needs are intrinsically related to one of the accessibility components, i.e., spatial orientation.

The spatial orientation conditions are determined by the environmental characteristics that enable us to recognize the identity and the functions of the space and to define strategies for its movement and utilization (CARPMAN & GRANT, 2012). Legible and imaginable spaces that can be easily reflected on mental maps must be designed. Studies on spatial orientation (PASSINI, 1984) highlight some architectonic design elements that are important for noticing and processing information. The spatial configuration arising from the principle of spatial organization is one of them.

The form of the physical arrangement - a cross shape, for instance - or the vertical circulation system that determines a central axis or the location of pillars that establish the horizontal circulation axes can make it easier to understand an environment and, consequently, the structure of mental maps. On the other hand, long corridors can cause orientation difficulties, just as the lack of proper functional zoning.

Just on very rare occasions we can notice that the architect is concerned with making spatial orientation easier in projects for the elderly. There are ways to ease said orientation difficulties, even in projects with little legibility in their spatial configuration, based on the utilization of referential elements and proper visual planning. The less solutions there are at project level, more design solutions are required, in particular in terms of graphical design. Besides text, it is essential to make use of universally understood pictograms in such environments.

Social needs are related to the possibility of social interaction. Social interaction, however, occurs when it is possible to control privacy. The rooms of a nursing home must enable the elderly to decide under what circumstances they wish to communicate and what kind of information they want to convey to others.

From the point of view of spatial accessibility, communication conditions in a certain environment are related to the possibilities of interpersonal information exchange or the exchange of information by other means, such as visual or hearing information. Communication and information must be accessible to those with hearing deficiency, speech problems or cognitive impairment.

There are many bad examples, such as reception and bar/cafeteria counters all at the same height - generally designed for persons standing - that make communication and reach difficult for those confined to wheelchair. Heavy furniture prevents new spatial arrangements and hampers face-to-face conversation, which enables lip reading for those with hearing limitations.

Besides taking into consideration the accessibility to communication, architectural design for the elderly must meet the needs of social interaction. Spatial solutions that take into account the importance of the personal space and territoriality can favor the establishment of interrelationship.

At nursing homes, the elderly are exposed to the use of spaces designed for collective use where they have little control and, moreover, are exposed to others whose proximity they have no control of. The “others” represent inherent danger to their co-presence or, in other words, disturbance. In order to promote privacy and the choice of “who” to be around with and “up to what level” of intimacy to interact, there are two phenomena to be taken into consideration: personal space, which may be defined as the distance that compose interpersonal relations, and the territoriality, which rules who will interact (ZEIZEL, 2006).

Personal relations in collective environments thereby require territories that are better protected, with well-defined limits or, simply, the existence of more intimate spaces. Such environments are important not only to receive visitors but also for having meals in family or interacting with other dwellers in a more intimate atmosphere. Furthermore, it is advisable to foresee spaces for friends coming from far way, such as a room for visitors.

4 Conclusions

There is still a lot to be done with regard to information and, above all, in relation to the spatial orientation for those with visual and cognitive limitations. One of the reasons for that may be the fact that the act of designing is eminently visual, which stresses the trend of ignoring the importance of other perceptive systems.

It should always be taken into account that the need for social interaction is one of the reasons that take the elderly to leave their home, where they decided when and who to interact with. Socialization depends on the control of the territory and privacy, both of them ephemeral factors in shelters.

On the other hand, excessive control by the sheltering institution, which determines the timeframe of most activities, may cause what Goffman (2007) defined as “mortification of self”.

To stimulate the independence and autonomy of the elderly by providing for their above-mentioned needs is one of the ways to prevent the mortification phenomena, which occurs when they lose the references to their previous domestic world.

5 References

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6 Acknowledgments

The authors thank CAPES, QUALIDOM and FONDATION ROI BAUDOIN for supporting their researches.