

Research on Emotional Furniture and Indoor Environment for the Elderly

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Abstract : The problem of population aging is a universal problem sweeping the world, and as a country with a large population, the problems caused by population aging are even more serious. Since China entered aging at the end of the 20th century, it has been analyzed by designers as the research object. The safety, convenience and comfort of home facilities for the elderly are the primary problems to be solved. Because the elderly spend 80% of their time in the indoor environment and have the longest contact time with all kinds of furniture, the barrier-free design of the elderly's home is very important. Study the behavioral characteristics of the elderly, analyze the physiological decline and psychological changes in the elderly, design furniture that can meet the various age structures of the elderly, and then understand the layout of the elderly's home space and improve the quality of life of the elderly at home. Organically and rationally unify "adaptation to aging" and "adaptation to aging" to design more reasonable emotional furniture.

Keywords: *Elderly; Emotional Furniture; Suitable For Aging Home Environment*

I. INTRODUCTION

The issue of old age involves thousands of households and affects everyone. This cannot be solved in a single generation, it is a long process. In this process, the issue of housing for the elderly directly affects every family and is related to all aspects of social development. In modern life with very rich material conditions, the elderly have higher and higher requirements for life and will pay more attention to some spiritual needs. This requires us to pay attention to some of the physical activities and psychological states of the elderly, and then design Humanized furniture with safety, comfort and adaptability, there is such a motto in the design world: a really good design can satisfy the user, make him surpass and improve, and inspire him. This requires us as designers not only to pay attention to "adaptation to aging" but also to "adaptation to aging".

II. AGING IS A COMMON PROBLEM OF GLOBAL PROBLEMS

According to the 2017 Social Service Development Statistics Report issued by the Ministry of Civil Affairs of China, there are 240.9 million elderly people aged 60 and above, accounting for 17.3% of the total population. Among them, there are 158.31 million elderly people aged 65 and over, accounting for 11.4% of the total population. . Since the middle and late 20th century, under the influence of the national family planning policy and the policy of focusing on economic construction, the birth rate of China's population has been declining year by year. It has quickly completed the transition from "high birth rate, high death rate, and high natural growth rate" to "The demographic transition process of low birth rate, low death rate, and low natural growth rate. At the end of the 20th century, the elderly in my country

accounted for more than 10% of the total population, and China officially entered an aging society.

The current situation of domestic and foreign elderly furniture market. At present, furniture designed for the elderly occupies a large share of the market. The elderly, a consumer group, also has huge furniture purchasing power and huge potential. According to a data analysis of a German study, the ratio of furniture purchase expenditure to total consumption expenditure is also compared. The furniture expenditure of the elderly over 70 years old accounts for 0.4 of the total expenditure, while the young consumer group is less than 0.3 . Frommholz Furniture Co., Germany has long aimed at the potential needs and purchasing power of elderly users. Unlike companies such as IKEA, the company began to specifically design traditional furniture that meets the needs of the elderly. Success and return.

The United States and Japan are the countries that entered the aging society earlier, so the development in this area is more experienced, and the types of furniture designed for the elderly on the market are also diverse. Japan is a typical aging society. It is better than other countries in product development and research for the elderly. For example, toilets and bathing equipment developed by Japan TOTO Sanitary Ware Company that have a self-cleaning function and are convenient for the elderly to use are very popular among the elderly. At present, a certain degree of "care for the elderly" has also been achieved in the Japanese furniture design. Provide convenient "welfare furniture" for the elderly and the disabled. Japanese elderly apartments are carefully designed from the living environment to its supporting facilities. The furniture facilities in the apartments include massage beds, auxiliary bathing systems, barrier-free doors and windows, etc. This kind of care for the elderly is not only reflected in the design, but also in the market demand. They have fully considered the elderly in the use of furniture and the home environment in many aspects of the design. The obstacles to their physical and psychological needs are analyzed with emphasis.

In the next 50 years, elderly consumers will become the main body of furniture consumption. Compared with other consumer groups, this group will be more economically affluent, have more time at home, and have a richer knowledge and awareness of high-quality life. The pursuit of land, so we must also consider their demands in the quality of furniture.

RESEARCH ON EMOTIONAL FURNITURE FOR THE ELDERLY.As the elderly grow older, their physiological activity levels decline, their hormone levels and their ability to adapt to the outside world decline, and the body shows varying degrees of degradation that affect their ability to live and work. Obstacles in life and work have also led to the growing psychological pressure of this group, and the huge accumulation of negative emotions seriously affects physical and mental health. These physical and psychological changes

in the elderly have put forward new demands in the use of furniture. Therefore, when designing the home environment for the elderly, the physical changes and psychological needs of the elderly must also be fully taken into account. The different age levels of this group must also be analyzed to make specific analysis of specific problems and consider all levels realistically. The actual situation and needs of the elderly. It cannot be generalized or generalized.

Analysis of Physiological Obstacles in the Elderly. The physical disorders of the elderly can be roughly divided into visual disorders, hearing disorders, thinking disorders, upper limb disorders, lower limb disorders, waist pain, cervical spondylosis, general paralysis, and half body paralysis. Among them, the elderly with visual impairment and backache and leg pain should be assisted with crutches, and some handrails should be set up in the home environment to facilitate the activities of the elderly. For other people with mental disorders, upper limb disorders, lower limb disorders, general or semi-paralyzed elderly people who need other people's care, now we have specially designed beds and bathing facilities for such groups. When designing sofas and recliners, special attention should be paid to the elderly consideration of cervical spine problems.

Analysis of the Psychological Characteristics of the Elderly. The physical function of the elderly will continue to decline with age, which will affect the psychological changes of the elderly, which will cause negative emotions such as reticence, lack of communication, emotional instability and so on. The direct cause of such emotions is not only related to the living conditions of the elderly and their psychological state, but also related to their life experience, spiritual pursuits, income stability and the support of their children. Psychological problems are not caused by a single cause, it is a need. Point of comprehensive analysis.

ANALYSIS ON THE SPATIAL DISTRIBUTION OF SENIOR RESIDENTIAL. Reasonably improving the distribution of the living space of the elderly is the key to improving the quality of life of the elderly. A good spatial layout can avoid many problems in the lives of the elderly and bring more convenience to their lives. The beauty of life is reflected in many small details in life. Whether a living environment can really bring convenience to people, in many cases comes from the small design of life. Especially for the elderly, most of their time is spent in "home". Therefore, the residential space for the elderly should have a more systematic design.

Analysis of bedroom space design requirements. Elderly people like sunlight and don't like damp and cold rooms, so the bedroom layout should be south, so that sunlight can reach the bed as much as possible. In addition to conventional sleeping functions, the elderly bedroom is also a place for reading, entertainment and watching TV. The bedroom is the main place for leisure and entertainment in life. The elderly pursue comfort but have weaker requirements for privacy. In the design of the bedroom space, the following points should be followed: In order to facilitate the elderly to get up and set up a higher countertop beside the bed, it should also have a storage function. The countertop is simple and convenient for the elderly to access and find items. Secondly, the elderly should separate beds or separate rooms for rest to avoid mutual interference due to differences in work and rest. For the elderly who need wheelchair assistance, the bedroom space should be as large as possible, enough for the wheelchair to rotate. For the elderly suffering from some hidden diseases, emergency

call equipment should be installed at the bedside to ensure that the elderly can reach them.

Analysis of living room space design requirements. The living room is the main place for family activities, mainly for leisure and entertainment. The elderly should be provided with a comfortable space to communicate with their families and the outside world, so as to maintain their youthful and energetic mentality. The design of the living room should create a fresh, lively, comfortable and warm atmosphere, so that the elderly can feel relaxation and joy in this environment, and maintain a good emotional state. The specific implementation is embodied in: the flexibility of the sofa, the choice of a harder sitting surface for the elderly to sit and stand for a long time, the high back of the sofa facilitates good head and neck support, and the pillow for the elderly to take a nap; the sofa should choose a countertop area. The large storage space is large, and the height and distance are moderate, making it easy to pick and place items. At the same time, the side table should also have the function of sorting storage, which is convenient for storing and finding odds and ends.

Analysis of kitchen space design requirements. For the elderly who can take care of themselves, cooking and eating are one of the main activities in daily life. Kitchen safety is the key consideration in designing the kitchen. It must be labor-saving and efficient to support the ability of the elderly to complete activities, so that the elderly are full of confidence in independent living. The size of the door handle should meet the comfort of the elderly to grasp, and the installation height should be within the height range of the elderly comfortable operation. Large capacity should be used in the selection of refrigerators to meet the habit of hoarding things by the elderly. The cooker should have an automatic fire-off device, linked with the range hood, and the range hood is activated at the same time as the ignition is turned off. After the fire is turned off, it will be turned off after a period of delay to ensure safe use by the elderly. The spatial distribution of the kitchen is also very particular, the spatial scale is reasonable, the operations do not interfere with each other, and the use is smooth, forming a series of operation procedures of "refrigerator-sink-chopping board-stove" to ensure the convenience of space use.

CONCLUSION

The research on ageing has always been the focus of emotional product research in recent years. Smart homes for the elderly, movable furniture, etc. have followed one after another, and now they are sold in major stores. In the aging environment, this has put forward higher requirements for the current situation of the furniture and home environment of the elderly. In addition, the education level of the elderly is generally improved, and the requirements for the quality of daily life are also constantly improving.

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