

Research on Living Space Design of Empty Nesters

Tingting Ye

North China University of Technology, Beijing, China

Abstract

Many reasons, such as unbalanced regional economic development and inversion of urban and rural areas in China, lead to a large number of young people leaving their hometowns in rural areas, and the elderly occupy a large part of the permanent population. The huge old age group has put a lot of pressure on our current pension system. With the aggravation of the aging population structure, it is imperative to meet the diverse and multi-level needs of the elderly. It is very necessary and meaningful to discuss the living environment of the elderly. This case will focus on the research and transformation design of the aging-suitable design, and create a good home care environment for the elderly.

Keywords

Suitable aging design; Humanistic care; Home care for the elderly.

1. Research Background

Throughout the world, China's aging has its own particularity. Compared with other countries, China has entered the old age society at a relatively low economic level. At present, China is changing from an agricultural country to an industrial country, and the dual economy of traditional small-scale peasant economy and modern agriculture will coexist for a long time, which determines that the main pension model in China is still based on family pension. There is a saying in China, "I am old, and people are old;" We are young, and people are young. "When everyone cares for the elderly, caring for this matter is no longer special, and it no longer needs to be done specially, but becomes instinct. Designing for the elderly is also for ourselves in the future.

Chinese people are used to supporting the elderly at home, and now many children choose to live separately from their parents. In this way, when the elderly living alone encounter unexpected situations or emotional instability, they can't get help and catharsis in time, and the strong pressure will even cause psychological burden of verification, which leads to a series of social problems. With this social demand, how to customize the living space of empty nesters has become the research center. Based on the physical condition of the surrounding elderly, this case explores the modern home environment suitable for empty nesters.

2. Design Ideas

2.1. Personalized Needs

The rising income level, the improvement of social welfare and the change of the concept of old-age consumption all lead to a higher standard of life for the elderly in the new era. At the same time, China proposes that the six principles of "providing medical care, providing security for the elderly, enjoying happiness, learning, having a sense of worthiness and teaching for the elderly" should be met at all levels of society. As the common basic support of these needs, the living space of the elderly should pay attention to the comprehensive needs of the elderly in health, life, emotion, recreation, socialization and belief, besides meeting the most basic living behavior needs. Due to the general improvement of the education level of the elderly in the new

period, the elderly generally have personalized interests and spiritual life demands, and their lifestyles and behaviors are diversified according to the changes of individual backgrounds.

2.2. Periodic Flexibility

The aging cycle of the elderly at home has obviously increased, and they will spend a variety of life periods with different aging degrees and great leaps in the same space, such as active health period, auxiliary life period and even nursing period. Therefore, there are higher requirements for the sustainability and flexibility of the use function of living space.

2.3. Relying on Feng Shui

The older generation always has a little awe of geomantic metaphysics, and geomantic omen is also the mysterious wealth left by the Chinese nation. The design will start from the perspective of geomantic omen, rely on objects, science and theory, and combine with field investigation, so as to design and integrate the environment and study the rationality of spatial layout. Explore the study of residential space color based on the concept of humanization, and maximize the integration of indoor space through color matching. Considering the daily activities of the elderly indoors in many ways, while designing the interior space, we also pay attention to the product design of the series suitable for the elderly, adding goodwill to our daily life.

3. Design Method of Living Space for Empty Nesters

3.1. Analysis of Original Apartment Layout

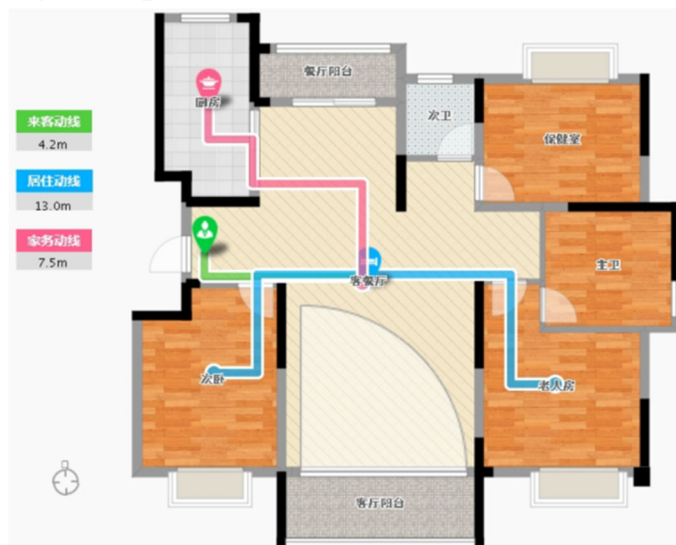


Figure 1. Original floor plan

This apartment type (Figure 1) is located in a certain district of Baohe District, Anhui Province, with the overall design from west to east, transparent vision and ideal indoor ventilation. Planar planning is more regular, which is beneficial to re-partition space and has high utilization rate of area. However, the moving lines of its internal space cross each other, which has a great influence on living. From the perspective of geomantic omen, the second bedroom is located in the southwest, which is a good position to get enough sleep, but it may weaken the desire to work the next day and produce burnout. The master bedroom is located in the southeast with plenty of sunshine. One third of our life will be spent in the bedroom, and the quality of sleep will directly affect our quality of life.

3.2. Overall Design Planning

3.2.1. Guest Restaurant Area

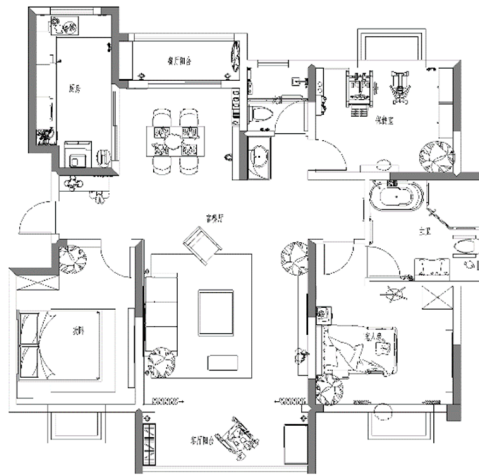


Figure 2. Site layout

Old people are prone to danger at home due to various reasons such as mobility inconvenience, slow response, decreased eyesight, etc. Therefore, safety is always the first priority when considering home design. In this scheme (Figure 2), the dining room and living room space are combined into one, and the guest dining room and the beautiful scenery outside the balcony are perfectly integrated, thus ensuring transparent lighting and good ventilation environment, which not only presents a large-scale integrity, but also reflects the unique design sense of each space. An anti-vertigo lamp with soft light and sufficient brightness is arranged above the dining table, so that the elderly can keep a clear line of sight when eating. In order to make the public spaces such as foyer, kitchen and living room have smooth visual contact, and make the elderly can clearly control the situation of each room and each area when sitting on the sofa, the combination of three sofas and movable single-row sofas is adopted in the selection of sofas, which avoids the large-scale combined sofas enclosing the seating area too tightly, facilitates the elderly to enter and exit, and reduces detours. In the selection of dining room furniture, such as tables, chairs, coffee tables and TV cabinets, light and stable furniture suitable for aging should be selected, and the corners of furniture should be rounded to avoid bumping and ensure the safety of the elderly. The junction between balcony and living room is designed without height difference, so as to avoid accidents such as bumping and falling, and make the elderly move safely and live more freely. In particular, an emergency pager is set up, so that the elderly can send out distress signals in time when accidents happen. At the same time, a pull rope is also set up, which can be used even after falling to the ground, so as to ensure the life safety of the elderly to the maximum extent.

3.2.2. Kitchen Area

The kitchen and dining room are adjacent to each other, so as to avoid the long walking distance of serving, taking and placing meals, and make the operation more convenient. In order to save effort and worry for the elderly in operation, the kitchen operation moving line system was carefully designed and planned, and the functional areas such as storage area, preparation area, cleaning area, cooking area and baking area were tailored. The operation moving line was reasonable, and the common equipment was arranged compactly without disturbing each other. In order to facilitate the operation of the elderly, we set the height of the console to be 85-95 cm, which is most suitable for the height of the elderly in China. At this height, the elderly can

avoid bending when standing, thus reducing fatigue and discomfort at the waist. In view of the need of hoarding food, storing nutrition and medicines for most elderly people, a large-capacity refrigerator is specially configured to facilitate the elderly to store various foods, and a take-over table is also designed beside the refrigerator for the elderly to take and put things. The cabinet style is lifting cabinet, which makes full use of the upper space of cabinet to store objects. Long handrails are installed along the edge of the table top to provide all-round and multi-angle support for the elderly. They can be used as towel hangers at ordinary times to avoid bacteria breeding due to humidity.

3.2.3. Bedroom Area

With the improvement of living standards, it is required that the design of housing for the elderly should be sustainable, so as to make assumptions for various physical conditions of the elderly in the future. Sufficient activity space needs to be reserved in the elderly room. Assuming that the elderly need to take a wheelchair in the future, the revolving space of the wheelchair should be reserved in the room, and the size of the passageway in the bedroom should be no less than 1.05m as far as possible. The height of the bed should not be too high, about 50cm. If there is a wheelchair, the height of the bed should be consistent with that of the wheelchair, which is beneficial for the elderly to get on and off the bed. Mattresses should be moderately hard and soft, and the elderly are not suitable for mattresses that are too soft. Handrails can be installed on both sides of the bed to help the elderly get up. It is inevitable for the elderly to have headache and brain heat, so it is necessary to increase enough nursing areas. In case of dangerous situations in the future, it is necessary to ensure that the stretcher can smoothly enter the elderly room, so the width of the door should not be less than 0.8m.

The elderly are fond of the sun and afraid of the shade, and their bedrooms are arranged in the south with plenty of light. When they rest at noon or stay in bed sick, they can naturally bathe in the sun, and the air is convection, which is also beneficial to sanitation and disinfection. Leaf-watching plants are cultivated in old houses, which do not need to absorb too much water and can save a lot of labor. For example, evergreen plants such as pine and cypress symbolize good luck, well-being, health and longevity.

3.2.4. Toilet Area

Recently, news of poisoning, coma, slip and fall in the bathroom has occurred frequently, and the bathroom space has become an uneasy place in the home environment. The elderly often have hunchbacks, so the height of the washstand should be appropriately reduced according to the body size of the elderly. The depth below the washstand can be appropriately increased, which is convenient for the elderly in wheelchairs to place their legs when washing. It is difficult for the elderly to get up and squat due to the decline of waist and leg functions, so the height of the toilet should be relatively high, and wall handrails should be installed around it to facilitate the elderly to get up after going to the toilet.

3.2.5. Tag

Population aging is a global problem. Everyone will grow old, go through old age and death, and step from a healthy state to a period of physical exhaustion and psychological loneliness. Therefore, the problem of aging should not only be confined to the elderly themselves, but also be a social problem that everyone pays attention to.

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