

Study on the Emotional Design of Reading Room Furniture for the Aged Community

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Abstract. With the rapid development of the economy, people's living standards have been greatly improved and life expectancy has been extended. But the problems of the aging population are also increasing. According to the aging trend of the population, this paper takes reading room furniture for the elderly community as the research carrier, based on the physiological characteristics of the elderly, and focuses on the psychological characteristics and emotional appeal. At the same time, according to the elderly reading room furniture on the size, color, structure, cultural requirements to design an emotional reading furniture suitable for the elderly by means of empathy, implication, and reasonable form.

1. Introduction

With the continuous development of China's aging population, the physical and mental health of the elderly has become a hot issue of concern to the society. In order to allow the elderly to realize their own life value and get subjective well-being in the age of old age and physical decline, they will continue to be active and learn for themselves. We designed the reading-room furniture for the elderly community to provide emotional comfort and spiritual satisfaction to the elderly through studying the psychological changes and emotional appeals, so as to enrich their spiritual culture and improve their quality of life.

2. Characteristics of the elderly community

The elderly community provides a one-stop retirement life solution and different levels of life care and care services with covering all aspects of services such as home life, food and beverage, medical care, culture and entertainment, fitness that fully satisfied the elderly's nutrition, health care, activity and fitness, social interaction, culture and entertainment, financial security, spiritual pursuit[1].

The development of social material also makes the retirement of the elderly more and more abundant. In the community pension, the reading room is not only the place for the elderly to read and learn, but also to meet their social and emotional needs. Starting with the behavioral and psychological characteristics of the elderly, this paper studies their physiological and spiritual needs for reading room furniture, so as to meet and facilitate their reading activities. We should take the safe humanized design as the premise and the elderly's psychological and spiritual appeal as the center to design the emotional furniture for the elderly community reading room.

3. The emotional appeal of the elderly and the emotional expression of the aging furniture

The elderly is a special social group. With the increase of age, they are end of their careers and out of workplace, which leads to lower income, social status and self-identity. At the same time, due to the children living in different places, the proportion of empty-nesters are relatively high, and the

spiritual and psychological demands of the elderly cannot be satisfied, which is easy to produce a series of bad psychology and emotions such as pessimism, depression, loneliness and anxiety. They are eager to find their own sense of existence and social value, keep up with the pace of social development, and get the care and love of others [2].

Emotional design is designed to capture the user's attention to induce emotional reactions to improve the possibility of performing specific behaviors, so that people can achieve resonance in the process of use [3]. Studies have shown that participation in lifelong learning has a positive effect on people's mental health, self-esteem, self-efficacy, and social integration. Therefore, a reading room that can attract the elderly to read and learn is a perfect place to satisfy the spiritual demands of the elderly. It is the main purpose of the study that how to design reading room furniture with reasonable size, comfortable sitting, mental memory, and emotional resonance of the elderly.

4. Emotional design method of reading room furniture of the elderly community

4.1 Composition and design requirements of reading room furniture

Tables, chairs, and bookshelves are the main items in the reading room furniture. Among them, the reading table can be divided into several types: from the perspective of use, there are one person or two people on the side; Double-sided table for four or six, etc.; in addition, the table can be assembled to accommodate more people as needed [4].

Elderly community reading room furniture design also has specific requirements, as follows:

4.1.1 Scientific and reasonable furniture size

Physical deterioration in the elderly can lead to changes in body size. At the same time, the elderly joint mobility degradation, muscle strength decline and height loss and other changes combined, they are difficult to take off the high or low position of the object. Therefore, the furniture in the reading room of the elderly community no matter be the scale of human activity, the size of the reading desk and chair, the height of bookshelf should suit the body size of the aged, and makes the furniture convenient and comfortable to use.

4.1.2 Soft and harmonious furniture color

As the growth of age, old person vision function drops, they prefer on the high saturation color. But the reading room is a place that needs to be quiet and comfortable, Therefore, while appropriately improving the degree of color, it is also necessary to ensure the color is soft and harmonious, so that it is easier to ease, calm people's emotions, and can also better alleviate the aged with eye fatigue.

4.1.3 Safe and reliable furniture structure

In terms of structure, the plate structure is relatively firm and reliable, which usually uses various hardware connection, and it is easy to assemble and disassemble. Accordingly, such structure makes reading-room furniture put reorganization is more flexible, bring more freshness and interest to the elderly.

4.2 The emotional design method of reading furniture

4.2.1 Empathy

When the elderly feels lonely, items with a sense of time are more likely to induce the nostalgia of the elderly, so as to place their feelings of longing. Memory and emotion help build a bridge of communication between people and products, to create a unique experience and feelings for people [5]. So, in the furniture design for the elderly, we can arouse the memory of the elderly to meet their psychological needs by focus on collecting old products or artistic styles in the past and extract design elements, so that they can have a quiet state in the bustling impetuous [6][7].

4.2.2 Metaphor

In reading furniture, we use historical stories and folk tales to intercept the patterns that makes the elderly to associate, and integrate them into the structure or parts of the furniture. For example, the use of some widely used in classical furniture, such as square pattern, mohair, group pattern, with the

special technology imitation of the old trace, produce a unique aesthetic feeling, to meet people's desire to find a long history of nostalgia emotional appeal.

4.2.3 Reasonable form

The wide and thick reading seats not only meet the physiological and physical needs of the elderly, but also make the elderly feel safe psychologically. For example, in the design of the chair, the key connecting parts are firm and reliable, the armrest is wide and comfortable, the backrest can comfortably support the waist and back of the elderly, and give the aged a sense of security that they won't fall back. In addition, the furniture should avoid sharp edges and corners, and adopt a smooth arc to prevent the elderly from bumping.

4.3 The design practice of Reading furniture

Reading furniture is mostly for tables, chairs, bookshelves, etc. Below are two elderly reading furniture design practices based on the above methods.

Program one is a reading desk made of wood and metal materials (refer with Fig. 1). It has a double-sided table top with a table and a floor lamp in the middle for small items and reading. Frame-shaped table legs and protruding armrests on both sides make it easy for the elderly to get up. Desk side board hollow out implied meaning of moon and cloud layer, and represent missing and reunion. This kind of method of Empathy and Metaphor gives the elderly emotional comfort.

Project two is a side table with the radio which the elderly very familiar as a design element (refer with Fig. 2). The radio carries the memories of a generation, blending it into the design of the side table make the goods more intimate due to the simple appearance and intuitive visual feeling, shorten the distance between time and space, and arouse the emotional resonance of the heart. In addition, considering the difficulty of getting up, the edge of side table can be used as a support for the elderly.



Fig. 1. reading desk



Fig. 2. Side table

5. Summary

The purpose of design is people oriented. Any design is a kind of creative activity to meet people's needs. As a vulnerable group in society, the elderly needs more attention from all sectors of society for their use requirements, psychological changes and emotional needs. Through the analysis of furniture size, structure, color, culture and other aspects, this paper discusses the emotional design of reading room furniture for the elderly community, which can solve various problems of the elderly to some extent and make them feel the care and respect of humanity in their old age.

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